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GRADUATE

About This Catalog

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 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.

Contact Directory

Contact	Phone
Academic Affairs	304-696-6690
Admissions	

Graduate	304-746-1900
International	304-696-4304
Colleges and Schools	
College of Arts and Media	304-696-6433
College of Business	304-696-2314
College of Education and Professional Development	
Huntington	304-696-3130
South Charleston	304-746-2030
College of Engineering and Computer Sciences	304-696-5453
College of Liberal Arts	304-696-2350
College of Health Professions	304-696-6750
College of Science	304-696-2372
Graduate College	304-696-6606
Joan C. Edwards School of Medicine	304-691-1700
School of Pharmacy	304-696-7302
Departments and Divisions	
Accounting	304-696-2310
Adult and Technical Education (Leadership Studies)	304-746-2514
Anatomy and Cell Biology	304-696-7382
Anthropology	304-696-6700
Art and Design	304-696-6760
Athletic Training	304-696-2929
Biochemistry and Molecular Biology	304-696-7301
Biological Sciences	304-696-3148/5413
Biomedical Sciences	304-696-7322
Business Administration	304-746-8964
Chemistry	304-696-2430
Classics	304-696-6749
Communication Disorders	304-696-3640
Communication Studies	304-696-6786
Counseling	
Huntington	304-696-2383
South Charleston	304-746-1925
Criminal Justice	304-696-3083
Dietetics	304-696-4336
Early Childhood Education	
Huntington	304-696-3101
South Charleston	304-746-1996
Economics/Finance	304-696-2311
Educational Foundations	304-696-2333
Elementary Education	
Huntington	304-696-3101
South Charleston	304-746-1996
Engineering	
Huntington	304-696-2695
South Charleston	304-746-2087
English	304-696-6600/6601
Environmental Science	304-746-2045

Exercise Science	304-696-6490
Finance/Economics	304-696-2311
Forensic Science	304-691-8931
Geography	304-696-4364
Geology	304-696-6720
Health Care Administration	304-746-8964
Health Informatics	304-696-2718
History	304-696-6780
Human Resource Management	304-746-8964
Humanities	304-746-2022
Journalism and Mass Communications	304-696-2360
Kinesiology, School of	304-696-6490
Latin	304-696-4323
Leadership Studies	304-746-2514
Literacy Education	
Huntington	304-696-2333
South Charleston	304-746-2027
Management, Marketing and Management Information Systems	304-696-5423
Mathematics	304-696-6482
Medicine	304-691-1050
Microbiology	304-696-7335
Modern Languages	304-696-6730
Music	304-696-3117
Nursing	304-696-6750
Obstetrics/Gynecology	304-691-1460
Pathology	304-696-7326
Pediatrics	304-691-1371
Pharmacology	304-696-7313
Philosophy	304-696-6749
Physical Therapy, School of	304-696-5611
Physics	304-696-6738
Physiology	304-696-7362
Political Science	304-696-6636
Psychiatry	304-691-1550
Psychology	
Huntington	304-696-6446
South Charleston	304-746-1932
Radiology	304-696-7246
Religious Studies	304-696-6749
Safety Technology	304-696-4664
School Psychology	304-746-1932
Secondary Education	
Huntington	304-396-3101
South Charleston	304-746-1996
Social Work	304-696-2642
Sociology	304-696-6700
Spanish	304-696-2743
Special Education	
Huntington	304-696-2340
South Charleston	304-746-2034

Sport Administration	304-696-6490
Surgery	304-691-1280
Technology Management	304-746-2078
Resources and Centers	
African American Students' Programs, Center for	304-696-5430
Alumni Affairs	304-696-3134
Artists Series	304-696-6656
Athletics	304-696-5408
Ticket Office	304-696-4373
Attorney for Students	304-696-2285
Bookstore	
Huntington	304-696-3622
South Charleston	304-746-2501
Bursar	304-696-6620
Toll-free	800-438-5384
Campus Christian Center	304-696-2444
Career Education	304-696-2370
Center for Teaching and Learning	304-696-2206
Center for Environmental, Geotechnical and Applied Sciences	304-696-5453
Community Clinical Services Center Dunbar	304-766-2674
Counseling Services	304-696-3111
Dining Services (Sodexo)	304-696-2534
Disability Services, Office of	304-696-2271
H.E.L.P. Program/Learning Disabilities	304-696-6252
ID Card Office	304-696-6843
Information Technology Service Desk	
Huntington	304-696-3200
South Charleston	304-746-1969
Toll-Free	1-877-689-8638
International Student Services	304-696-6265
Libraries	
Drinko	304-696-2320
Circulation	304-696-2321
Reference & Instruction Services	304-696-2334
Government Documents	304-696-2342
Health Sciences	304-696-1750
Morrow Stacks	304-696-2343
South Charleston	304-746-8910
Special Collections	304-696-2343
MUOnLine Design Center	
Huntington	304-696-7117
South Charleston	304-746-1948
Multicultural Affairs	304-696-4677
Office of International Student Services	304-696-6265
Office of Outreach and Continuing Studies	304-696-4723
Prevention Resource Center	304-766-6301

Psychology Clinic	304-696-2772
Registrar	304-696-6410
Residence Services	304-696-6765
Student Activities	304-696-6770
Student Center	304-696-6472
Student Financial Assistance	304-696-3162
Student Government	304-696-6435
Study Abroad	304-696-2465
Telecommunication	304-696-8965
Theatre	304-696-6442
Tutoring Office	304-696-6622
Veterans Affairs	304-696-5278
Women's Center	304-696-3338
Writing Center	304-696-6254

Campuses and Other Locations

Beckley Center	304-256-0266
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 (<http://www.marshall.edu/graduate/>)

About Marshall University

Jerome A. Gilbert, President

<https://www.marshall.edu/>

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 public comprehensive university with a rich history as one of the oldest institutions of higher learning in West Virginia. Founded in 1837 and named after Chief Justice John Marshall, definer of the Constitution, Marshall University advances the public

good through innovative, accredited educational programs. Marshall University's mission, inspired by our Vision and Creed, includes a commitment to:

- Offer a wide range of high quality, affordable, and accessible undergraduate, graduate, and professional education that prepares students to think, learn, work, and live in an evolving global society.
- Create opportunities and experiences to foster understanding and appreciation of the rich diversity of thought and culture.
- Maintain a dynamic intellectual, artistic, and cultural life by promoting and supporting research and creative activities by undergraduates, graduates, and faculty.
- Contribute to the quality of life of the community, region, and beyond through applied research, economic development, health care, and cultural enrichment.
- Cultivate the development of an inclusive, just, and equitable community.

Vision Statement

The vision of Marshall University: to inspire learning and creativity that ignites the mind, nurtures the spirit, and fulfills the promise of a better future.

The Marshall Creed

Inspired by the example of John Marshall, we the students, faculty, staff, and administrators of Marshall University, pledge to pursue the development of our intellects and the expansion of knowledge, and to devote ourselves to defending individual rights and exercising civic responsibility. We strive to exemplify in our own lives the core values of John Marshall's character: independence, initiative, achievement, ethical integrity, and commitment to community through association and service. As Marshall University, we form a community that promotes educational goals and that allows individuals maximum opportunity to pursue those goals.

We are:

- **An Educational Community** in which all members work together to promote and strengthen teaching and learning;
- **An Open Community** uncompromisingly protecting freedom of thought, belief and expression;
- **A Civil Community** treating all individuals and groups with consideration, decency, and respect, and expressing disagreements in rational ways;
- **A Responsible Community** accepting obligations and following behavioral guidelines designed to support the common good;
- **A Safe Community** respecting each other's rights, privacy and property;
- **A Well Community** respecting and promoting physical and emotional health;
- **An Ethical Community** reflecting honesty, integrity and fairness in both academic and extracurricular activities;
- **A Pluralistic Community** celebrating and learning from our diversity;
- **A Socially Conscious Community** acting as citizens of the world and seeking to contribute to the betterment of people and their environments;

- **A Judicious Community** remaining alert to the threats posed by hatred, intolerance and other injustices and ever-prepared to correct them.

Accreditations

- **The Higher Learning Commission** accredits Marshall University as an institution of higher learning.
230 South LaSalle Street, Suite 2400
Chicago, IL 60602
Toll-free 1-800-621-7440
www.hlcommission.org (<http://www.hlcommission.org>)
- **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** accredits the W. Page Pitt School of Journalism & Mass Communications.
University of Kansas School of Journalism
Stauffer-Flint Hall
Lawrence, KS 66045
Telephone 913-864--3986
- **Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)** accredits the Master of Science in Health Informatics degree program for 2013 through 2023.
www.cahiim.org (<http://www.cahiim.org>)
233 N. Michigan Ave, 21st Floor
Chicago, IL 60601-5800
Telephone 312-233-1100
- **Commission on Accreditation of Athletic Training Education** accredits the Athletic Training program.
6850 Austin Center Blvd., Suite 100
Austin, TX 78731
Telephone 512-733-9700
- **Commission on Accreditation in Physical Therapy Education (CAPTE)** accredits the Doctor of Physical Therapy program.
1111 North Fairfax Street
Alexandria, VA 22314
phone: 703-706-3245
E-mail: accreditation@apta.org
Website: www.capteonline.org (<http://www.capteonline.org>)
- **Council on Academic Accreditation of the American Speech-Language-Hearing Association** accredits the Communication Disorders graduate program.
10801 Rockville Pike
Rockville, MD
Telephone 301-897-5700
- **Council on Accreditation of Nurse Anesthesia Educational Programs** accredits the Doctor of Nurse Anesthesia Practice and Management.
222 South Prospect Avenue
Park Ridge, IL 60068-4001
- **Council on Social Work Education** accredits the Master of Social Work program.
1600 Duke Street
Alexandria, VA 22314
Telephone 703-683-8080
- **Forensic Science Education Program Accreditation Commission (FEPAC)/American Academy of Forensic Sciences (AAFS)** accredits the Master of Science in Forensic Science.
www.aafs.org/fepac (<http://www.aafs.org/fepac/>)
410 North 21st Street
Colorado Springs, CO 80904
- **Forensic Science Education Program Accreditation Commission (FEPAC)/ American Academy of Forensic Sciences (AAFS)** accredits the Master of Science in Forensic Science Emphasis in Digital Forensics.
www.aafs.org/fepac (<http://www.aafs.org/fepac/>)
410 North 21st Street
Colorado Springs, CO 80904
- **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.
- **Council for the Accreditation of Educator Preparation (CAEP) and the West Virginia State Department of Education** accredit the teacher education program.
- **Accreditation Commission for Education in Nursing, Inc.** accredits programs for the Associate in Science in Nursing, the Bachelor of Science in Nursing and the Master of Science in Nursing.
3343 Peachtree Road NE, Suite 850
Atlanta, GA 30326
Phone 404-975-5000
Fax 404-975-5020
- **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**
- **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.

The Graduate College

Contacts: David J. Pittenger, Interim Vice President and Dean of Graduate Studies

Website: <https://www.marshall.edu/academics/graduate/>

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 worldwide. 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 interdisciplinary 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 private and public sector constituencies; disseminate information, research findings, and data; and encourage and support faculty in their intellectual pursuits and contributions.

Center for Consumer Law and Education (CCLE)

CCLE, a joint program of Marshall University and the West Virginia University College of Law, is a leading research and educative consumer rights and policy development center. This unique partnership brings together scholars, practitioners, and students to empower, lead, and transform communities. The CCLE has exceptional capacity, with access to both faculty and students at Marshall University and the WVU College of Law. It has administrative support at both institutions. It often assists consumers with self help by explaining the “how to” and the “where at” regarding consumer issues, and educates students through experiential learning opportunities, and coordinates as well the efforts and resources of other interested partners. This partnership gives the center the unique ability to access, develop, and execute programs across the state.

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 (<http://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 Forensic Science Center at Marshall University has been designated as a Criminal Justice Agency. 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 (<http://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 (<http://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.

The complete policy statement may be found on the Web at www.marshall.edu/murc/files/2010/06/Misconduct-in-Research-Policy-Statement-on-Integrity-in-Scientific-Research-April-1994.pdf (<http://www.marshall.edu/murc/files/2010/06/Misconduct-in-Research-Policy-Statement-on-Integrity-in-Scientific-Research-April-1994.pdf>).

Admissions

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 (<http://www.marshall.edu/graduate/>).

Admission deadlines are as follows:

Term	Due Date
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.¹ 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 exceptions to the baccalaureate degree requirement pertain to several accelerated graduate degree programs, students enrolled in the Doctor of Pharmacy program, and those students participating in an approved articulated program of study offered by Marshall University and a collaborating accredited institution of higher education. Students who have previously taken graduate coursework at another institution may be required to submit all transcripts and must meet all admission 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 degree earned and the date on which it was conferred must be sent 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, sent 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.

¹ For international students, the equivalent of a baccalaureate degree from an accepted, 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-US institution must provide proof of English proficiency.

Admissions Examinations

The Graduate Record Examination (GRE) is required of applicants to some programs. M.S. in Accountancy students may be required to take the Graduate Management Admissions Test (GMAT) prior to admission. 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 \(http://www.marshall.edu/graduate/admissions/graduate-admissions-test-information/\).](http://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 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:

Term	Due Date
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 want 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 Office of Admissions provided a completed residency application with all required supporting documentation is submitted by the end of the first week of the term of admission. Contact admissions@marshall.edu for more information. Thereafter, all requests for changes in residency status for currently enrolled students will be evaluated by the Office of the Registrar for subsequent terms. Contact registrar@marshall.edu for more information.

TITLE 133

PROCEDURAL RULE

WEST VIRGINIA HIGHER EDUCATION POLICY COMMISSION

SERIES 25

RESIDENCY CLASSIFICATION FOR ADMISSION AND FEE PURPOSES

- 1.1. Scope. -- Rule regarding residency classification of students for admission and fee purposes.
- 1.2. Authority. -- West Virginia Code §§18B-10 and 18B-2B-6.
- 1.3. Filing Date. -- March 11, 2019.
- 1.4. Effective Date. -- April 11, 2019.
- 1.5. Repeal of Former Rule. -- Repeals and replaces Title 133, Series 25 which had an effective date of June 9, 2017.

§133-25-2. 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.

§133-25-3. 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.

§133-25-4. 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.

§133-25-5. 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 §133-25-3 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.

§133-25-6. 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.

6.3. Any student living in West Virginia and receiving education or vocational rehabilitation benefits from the U.S. Department of Veterans Affairs shall be charged in-state tuition and fees to attend a West Virginia public institution of higher education so long as such student is considered a "covered individual" as described in 38 U.S.C. §3679, as in effect at any time.

§133-25-7. Aliens.

7.1. Students who meet the domiciliary requirements noted in Sections 3, 4, and 5 of this policy, and who are U.S. Permanent Resident Aliens, Political Asylees or Political Refugees, or who hold an A, E, G, H, I, L, O, P, R, TD, TN, U, or V visa, may apply to be reviewed for in-state residency for tuition purposes.

7.2. Students who hold B, C, D, F, J, K, M, or Q visas are not eligible for establishing in-state residency for tuition purposes.

7.3. Students who meet the domiciliary requirements and who are the beneficiary of a pending I-485 application to adjust status to permanent resident may apply to be reviewed for in-state residency for tuition purposes.

§133-25-8. 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 §133-25-3 of these rules, regarding proof of domicile and intent to remain permanently in West Virginia.

§133-25-9. 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.a. 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.a.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.a.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.b. 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.c. Residency appeals shall end at the institutional level.

Admission of International Students

Marshall University is authorized by the U.S. Department of Homeland Security 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 in this catalog.

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/ (<https://www.marshall.edu/graduate/admissions/international-admission/>).

The application requires a 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 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. If admissible, you will be sent a letter of admission and a list of items needed to issue the I-20. 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.
- (IELTS) the International English language Testing System minimum score of 6.5 for graduate study.
- Completion of an approved ESL program (i.e., Academic Preparation II as part of Marshall University's English Language Institute).
- Completion of ENG 160 Academic English & Composition with a minimum "C" grade.
- Transfer credit equivalent to ENG 101 Beginning Composition from an accepted, accredited institution with a minimum "C" grade.
- Completion of the equivalent to a U.S. post-secondary degree from an accepted, accredited institution in an approved country where the primary language is English.
- 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) year. 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 I-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 (<http://www.marshall.edu/graduate/>) for additional requirements and application deadlines for specific programs. Admission to Marshall University does not guarantee admission to all programs. ETS code for Marshall University is #5396

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 a list of items needed to issue the I-20. Once all necessary items are received, including the enrollment deposit, the I-20 will be issued. 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.

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

Marshall University English Language Institute

The Marshall University English Language Institute 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 in fall and spring or a 12-week term in summer. Students receive a minimum of 20 hours of classroom instruction per week. Successful completion of Academic Preparatory II (no grades below B at that level) fulfills the English language proficiency requirement for admission to the Graduate programs.

Financial Information: Tuition, Fees, and Financial Assistance

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 (<http://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 2019-2020 academic year.

Tuition and Enrollment Fees for Graduate Students

Tuition	Resident Rates	Metro Rates ¹	Non-Resident Rates
Total Regular Student Tuition	\$4,414.00	\$7,786.00	\$10,581.00
College of Business Fee	318.00	525.00	525.00
CITE Fee	560.00	865.00	865.00
Ed.S./Ed.D. Programs Fee	115.00	115.00	115.00
Executive M.B.A. Fee	4,500.00	4,500.00	4,500.00
Fine Arts Program	185.00	410.00	410.00
Journalism Fee	110.00	193.00	193.00
Education and Professional Development Fee	50.00	50.00	50.00
Health Professions Fee	275.00	650.00	650.00
Nursing Fee	550.00	945.00	945.00
Psychology Doctorate Fee	1,068.00	1,068.00	1,446.00

Clinical Library Sciences, Communication Disorders or Dietetics Program Fee	390.00	775.00	775.00
Kinesiology Program Fee	390.00	775.00	775.00
College of Liberal Arts Fee	90.00	90.00	90.00
College of Science Fee	175.00	220.00	220.00

- 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.

Regular Semester Fees

Tuition	Resident Rates	Metro Rates ¹	Non-Resident Rates	International Rates
Regular Semester-Biomedical Sciences Program				
Total Regular Fees	\$5,560.00	\$8,068.00	\$11,488.00	
Regular Semester-Forensic Science Program				
Total Regular Fees	\$5,240.00	\$7,782.00	\$11,440.00	
Regular Semester-Master of Public Health Program				
Total Regular Fees	\$6,655.00	N/A	\$14,196.00	
Regular Semester-Master of Social Work Program				
Total Regular Fees	\$4,414.00	\$7,786.00	\$10,581.00	
Regular Semester-Master of Pharmaceutical Sciences Program				

Total Regular Fees	\$6,062.00	N/A	\$9,966.00	\$12,801.00
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Regular Semester-Doctorate in Physical Therapy

Total Regular Fees	\$6,660.00	N/A	\$10,453.00	
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Regular Semester-Doctorate in Pharmacy

Total Regular Fees	\$11,215.00	N/A	\$18,525.00	
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- 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.

Special Student Fees

Fee	Amount
Application Fees: ¹	
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	65.00
CLEP/DANTES Testing	25.00
COHP-MPH Non-major Course Fee:	
(per 1-hour course)	632.00
(per 2-hour course)	1,264.00
(per 3-hour course)	1,896.00
(per 4-hour course)	2,528.00
COHP-SOK - Activity Course Fee	40.00
COHP-SOK - Scuba Fee	200.00
COHP Distance Dietetic Internship Certificate Program (per credit hour)	420.00
Distance Programs (per credit hour)	382.75
E-Delivery Course Fee (per credit hour)	40.00
MBA Online Program Fee	450.00
Enrollment Deposits:	
School of Pharmacy ¹	500.00
School of Physical Therapy ¹	500.00

Graduation Fees:¹

Master's Degree	50.00
First Professional Degree	100.00
Doctoral Degree	100.00
Certificate Fee	15.00
Diploma Replacement (master's)	50.00
Diploma Replacement (doctoral and professional)	100.00
Housing Miscellaneous Fees:	
Improper Check-out Fee ¹	50.00
Mail Box Re-Key (per lock)	30.00
Reservation Deposit	200.00
Room Re-Key (per lock)	50.00
International Student Fee	100.00
Late Payment Fee ¹	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	390.00
MUGC Alternative Assessment (per credit hour)	25.00
Regents B.A. Degree Evaluation	300.00
Regents B.A. Posting Fee (per credit hour awarded)	10.00
Reinstatement Fee - Course Schedule ¹	25.00
Returned Check Fee	25.00
Revalidation of Credit Fee (per hour)	25.00
Senior Citizens Course Fee - Series 67 (audit mode - per course)	50.00
Student Success Fee	60.00
Study Abroad Application/ Advising/Shipping Fee	150.00
Study Abroad Registration Fee (per program)	100.00
Transcript - paper	10.00
Transcript - electronic	12.00

¹ Non-refundable.

Rooms 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, a room with WIFI and cable television. Each hall is managed by an Area Coordinator with an Resident Advisor on each floor who provides the students with the best possible living and learning environment and resources.

The Landing at Marshall University offers graduate housing for students. The property consists of furnished, studio and two bedroom apartments which includes all utilities including cable and Internet. Nine and twelve month leases are available.

Marshall University requires all full-time freshman and sophomore students to live on campus. Exceptions are granted to those living within a 50-mile radius that live at home with a parent or legal guardian; individuals 21 years of age; those who are married; or those who have been high school graduates for more than two years. In order to be considered for release from the residency requirement, a release request and supporting documentation must be submitted to the Department of Housing and Residence Life by

- July 1 (Fall semester) or
- November 15 (Spring semester).

Semester Fees (16 Weeks)

Rates are subject to change.

Residence Halls

Description	Amount
Double Occupancy	
First-Year Residence Halls	\$3,424.00
Twin Towers	\$2,862.00
Buskirk	\$2,862.00

Deluxe Single Occupancy

Buskirk (if available)	\$3,833.00
Holderby Hall	\$3,394.00
Twin Towers	\$3,833.00

Single Room Suite

Gibson, Haymaker, Wellman, Willis	\$4,218.00
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Double Room Suite

Gibson, Haymaker, Wellman, Willis	\$3,336.00
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Board Rates: for more details visit <https://www.marshall.edu/housing/residence-hall-info/rates/>

Description	Amount
10 Meals per week w/ \$500 Flex and 10 Anytime Meals	\$1,925.00
10 Meals per Week w/ \$700 Flex and 20 Anytime Meals	\$2,125.00
10 Meals per Week w/ \$935 Flex	\$2,275.00
14 Meals per week w/ \$500 Flex and 10 Anytime Meals	\$2,125.00
14 Meals per week w/ \$700 Flex and 20 Anytime Meals	\$2,415.00
14 Meals per Week w/ \$935 Flex	\$2,565.00

Summer Term Fees, Subject to Change (5 Weeks): Residence Halls

Description	Amount
Twin Towers Double Occupancy	\$1,496.00
Twin Towers Single Occupancy	\$1,821.00

Early Arrival/Break Housing, Subject to Change

Description	Amount
Double Occupancy per day	\$30.00
Single Occupancy per day	\$40.00

Commuter Meal Plans

For a complete list of the Commuter Meal Plans visit <https://www.marshall.edu/it/departments/campusid/mealplans/>

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.

You can pay fees by VISA, American Express, MasterCard or Discover by using CashTrack on myMU (www.marshall.edu/myMU/ (<http://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 that follows.)

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/ (<http://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 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.

Public Law 115-407, Sect 103

Effective August 1, 2019:

For students utilizing Chapter 31 VA Veteran Readiness and Employment or utilizing Chapter 33 Post 9-11 VA education benefits, while payment to the institution is pending from the VA, Marshall University guarantees:

- Enrollment in the semester for which VA payment is pending;
- Access to registration for the subsequent semester;
- No late fees assessed for amount pending payment by VA;
- Access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution;
- Borrowing additional funds will not be required.

To qualify, by or on the first day of the semester a student must:

- Present to the Office of the Registrar a VA Certificate of Eligibility issued in the name of the student;
- Provide written request to be certified by completing the form at: www.marshall.edu/registrar/veterans/;
- Use one of the two VA benefits, Chapter 31 or Chapter 33, as noted.

Costs which are the responsibility of the student, such as tuition and fees not billable to VA, or costs for dormitory and meal plans, are not covered under the provision established by PL 115-407, Sec. 103. Students using Post 9-11 benefits at *less than 100% eligibility* are responsible to contact the Office of the Bursar to make payment arrangements on the amount of tuition not anticipated to be paid by the VA. Students are responsible to make payment arrangements for dorm and meal plans, if applicable.

The provision established by PL 115-407, Sec. 103, ends 90 days after tuition and fees are billed to VA whether or not VA has issued payment to the University. At that time, the University can hold the student liable for the billable tuition and fees unpaid by VA, place a registration hold for any outstanding amount billed to VA, or withdraw the student for non-payment of the billable tuition and fees not paid by VA. Ultimately, the student does agree to assume and pay any and

all costs associated with said enrollment not paid by the VA directly to the University.

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 (<http://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.

Housing and Residence Life

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 and 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.

Student Financial Assistance

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 (<http://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 2021 summer terms, the student must have a FAFSA on file and complete a 2021 Summer Financial Aid Application. To obtain a Summer Financial Aid Application, go to www.marshall.edu/summeraid/.

Eligibility Determination Student Aid Report

As a result of filing the FAFSA, the student receives a Student Aid Report (SAR) by e-mail 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 (<http://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.

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 (<http://www.marshall.edu/bursar/>).

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:

- Adjusted gross income
- U.S. Income Tax Paid
- Education credits
- Untaxed IRS distribution
- Untaxed pensions
- IRA deductions and payments
- Tax-exempt interest
- Income earned from work
- Household size
- Number in college
- Supplemental Nutrition Assistance Program (SNAP)
- Child support paid
- High school completion status
- Identity/statement of educational purpose

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 you respond to requests for information promptly because **finalized financial aid awards are processed in the order of file completion date**. To ensure that your financial funds disburse as scheduled at the start of the fall semester, you must be registered for classes and submit all required documentation by June 10; however, you should be prepared to make payment arrangements with the Bursar's Office in the event your financial aid is not finalized by the billing date.

The deadline for submittal of all verification documents is 30 days prior to the end of the academic year/period you are enrolled. This designated deadline allows SFA to process and authorize disbursements within the timeframe permitted under regulations set forth for administering the federal and state financial aid programs. Failure to provide requested documentation within this timeframe will result in cancellation of your financial aid offers.

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.

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. Only courses that apply to the student's degree may be included to consider enrollment status for federal student aid eligibility.

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 (<https://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 Graduate 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 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 credit hours that apply to a Marshall University degree.

(This SAP Policy for Graduate Students is not applicable to professional students pursuing a Doctor of Medicine, Doctor of Pharmacy, or

Doctor of Physical Therapy degree, but to all other graduate students enrolled in graduate certificate or degree programs.)

Requirements of the SAP Policy

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 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 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 award 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 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 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's Degree or Ed. S. Degree

Not to exceed 7 years from the student's start date of the program

Graduate Student Pursuing a Doctoral Degree

Not to exceed 10 years from the student's 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 Doctorate Degrees (excluding Doctor of Pharmacy, Doctor of Medicine, and Doctor of Physical Therapy). If the student is pursuing a 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 Doctorate 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.

(Coursework that a student repeats may be included when determining a student's enrollment status for Title IV-federal student aid purposes as long as it is not a result of 1) more than one repetition of a previously passed course, or 2) any repetition of a previously passed course due the student failing other coursework. This rule is not related to SAP but is a general financial aid eligibility requirement.)

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 Pharmacy, Doctor of Medicine, 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 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 (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 by the published deadlines. The SAP Appeal for Financial Aid Reinstatement Form is available at www.marshall.edu/fasap (<https://www.marshall.edu/sfa/eligibility-costs/financial-aid-satisfactory-academic-progress/>).

The appeal must include the following:

1. A completed 2020-2021 Free Application for Federal Student Aid (fafsa.gov) on file by the deadline dates specified in the next section;
2. Not be in Federal Student Loan Default or owe a Title IV (Federal) Student Aid Overpayment;
3. Detailed explanation for failure to meet SAP standards for each payment period the student failed to perform satisfactorily;
4. Documentation to support the reason for failure (medical form, death certificate, etc.);
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.

SAP Appeal Deadlines

Semester/Term	Date
Fall Semester	Tuesday prior to the first day of classes
Spring Semester	Tuesday prior to the first day of classes
Summer Terms	Last Friday of June

SAP Appeals Committee and Decision

The SAP Appeals Committee is comprised of representatives from the Office of Student Financial Assistance. Students will be notified by email and directed to log into myMU to review the decision of the SAP Appeals Committee. The decision of the SAP Appeals Committee is final; however, the student may appeal again by the published deadlines for a future payment period.¹

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 and will be required to sign a Financial Aid Academic Probation Agreement. 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 the maximum timeframe measure) and earn a minimum 3.1 GPA for the payment period the student is on SAP Academic Probation. If the student meets the requirements of the Financial Aid Academic Plan, the student will be assigned continued Financial Aid Probation for a subsequent payment period.

(The FA Academic Plan is separate and distinct from an Academic Improvement Plan, which is required of 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, but may appeal again by published deadlines for a future payment period.

A student who has a change made to his or her academic transcript (i.e., grade change) during the semester in which the student is ineligible, on Financial Aid Warning or Financial Aid Probation, may request a SAP re-evaluation.

- ¹ If the appeal is denied, the student will be responsible for paying tuition and/or fees or officially withdrawing from classes before the refund deadline.

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 2.0. 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 Pharm.D. program and is counted going forward whether or not the student enrolls in all subsequent semesters or terms. To meet the maximum timeframe requirement, Pharm.D. students must complete their program within 6 years of the start of the program and not exceed 225 attempted credit hours.

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 Pharm. D. 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.

(Coursework that a student repeats may be included when determining a student's enrollment status for Title IV-federal student aid purposes as long as it is not a result of 1) more than one repetition of a previously passed course, or 2) any repetition of a previously passed course due the student failing other coursework. This rule is not related to SAP but is a general financial aid eligibility requirement.)

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 (<https://www.marshall.edu/sfa/eligibility-costs/financial-aid-satisfactory-academic-progress/>).

SAP Appeal Deadlines

Semester/Term	Date
Fall Semester	Tuesday prior to the first week of classes
Spring Semester	Tuesday prior to the first week of classes
Summer Terms	Last Friday of June

SAP Appeals Committee and Decision

The SAP Appeals Committee is comprised of representatives from the School of Pharmacy Office of Student Financial Assistance, Student Affairs, and Academic Affairs. 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 an Academic Plan by the School of Pharmacy.

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.

A student who has a change made to his or her academic transcript (i.e., grade change) during the semester in which the student is ineligible, on Financial Aid Warning or Financial Aid Probation, may request a SAP re-evaluation.

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.

(Coursework that a student repeats may be included when determining a student's enrollment status for Title IV-federal student aid purposes as long as it is not a result of 1) more than one repetition of a previously passed course, or 2) any repetition of a previously

passed course due the student failing other coursework. This rule is not related to SAP but is a general financial aid eligibility requirement.)

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/fasap (<https://www.marshall.edu/fasap/>).

The appeal must include the following:

1. A completed 2020-2021 Free Application for Federal Student Aid (fafa.gov (<http://fafsa.gov>)) on file by the deadline dates specified in the next section;
2. Not be in Federal Student Loan Default or owe a Title IV (Federal) Student Aid Overpayment;
3. Detailed explanation for failure to meet SAP standards for each payment period the student failed to perform satisfactorily;
4. Documentation to support the reason for failure (medical form, death certificate, etc.);
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.

SAP Appeal Deadlines

Semester/Term	Date
Fall Semester	Tuesday prior to the first week of classes
Spring Semester	Tuesday prior to the first week of classes
Summer Terms	Last Friday of June

SAP Appeals Committee and Decision

The SAP Appeals Committee is comprised of representatives from the DPT Office of Student Financial Assistance, Student Affairs, and Academic Affairs. 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 an Academic Plan by the School of Physical Therapy.

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.

A student who has a change made to his or her academic transcript (i.e., grade change) during the semester in which the student is ineligible, on Financial Aid Warning or Financial Aid Probation, may request a SAP re-evaluation.

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 (<https://www.marshall.edu/sfa/types-of-aid/>).

Notification and Disbursement of Awards 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.

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

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.

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 (<https://www.marshall.edu/bursar/>).

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 (<https://www.marshall.edu/bursar/>).

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 and external financial aid follow the Marshall University Refund Policy. The following chart describes how institutional and external financial aid is treated whenever a student withdraws. Adjustments to state financial aid follow the chart below when the student is not a recipient of Title IV (federal) student aid. Otherwise, state aid is adjusted according to the Treatment of Title IV (Federal) Aid for Total Withdrawal, below, and is adjusted

Period of Withdrawal During a Semester	Percentage of Aid Returned to Program
During the first 10%	90%
From 11% to 25%	75%
From 26% to 50%	50%

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:

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:

(100% of the Aid That Could be Disbursed minus the % of Earned Aid) X 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 <https://ovr.sos.wv.gov/register/landing> (<https://ovr.sos.wv.gov/register/landing/>).

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

University Policies and Procedures

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.

Administrative Steps for filing a Complaint Regarding a Student or Student Organization

Marshall University expects all members of its community to act in respectful and responsible ways toward one another. Marshall University is committed to providing programs, activities and an educational environment free from discrimination and harassment of any kind. To file a general complaint against a student or student organization complete the General Complaint Form (https://marshall-advocate.symplicity.com/public_report/) or contact the Office of Student Conduct, 2W29 Memorial Student Center, or call 304-696-2495.

Sexual Misconduct

According to Title IX, the Education Amendments Act of 1972, "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance." To file a complaint regarding sexual misconduct, complete the Title IX Complaint Form (https://marshall-advocate.symplicity.com/titleix_report/) or contact the Office of Equity Programs, 206 Old Main, 304-696-2597.

Clery Act and Title IX Educational Program

Required training for all incoming graduate students

To maintain compliance with the Clery Act and Title IX Requirements, Marshall University Graduate College requires all incoming graduate students to complete a sexual assault and interpersonal violence prevention education program as approved by the Vice President of Student Affairs. The training also ensures students learn of the campus resources related to sexual assault and interpersonal violence. Students who do not complete the training by the end of the 8th week of their first semester of enrollment may not register for additional courses until completing the training. Students will receive multiple notifications regarding this required training program.

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 (<http://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:

1. 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
2. making submission to or rejection of such conduct the basis for employment or educational decisions, or
3. 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.

Students with Disabilities Introduction

Marshall University is committed to providing equal opportunity and access to all programs, services, and activities for students with disabilities. Marshall has three (3) offices or centers that provide services for students with disabilities. These programs include two nationally recognized centers for excellence: the College Program for Students with Autism and the Higher Education Learning Problems (H.E.L.P.) Program. Each of these has different intake processes and procedures. Please check with each program for specific questions. For more specific information on their services, processes, and fees, please use the web links that follow:

The Office of Disability Services (ODS)

www.marshall.edu/disability/ (<http://www.marshall.edu/disability/>)

The Office of Disability Services is the university-wide office responsible for working with both faculty and students with disabilities to provide reasonable accommodations, assistive technology, and/or auxiliary aids and services. This office helps to ensure Marshall University is providing equal opportunity and access for all students with disabilities without cost to the students.

College Program for Students with Autism Spectrum Disorder

www.marshall.edu/collegeprogram/ (<http://www.marshall.edu/collegeprogram/>)

(Focus is on students with autism.)

Participation in this program requires that students pay for services. College Program services are highly individualized, but every student receives supports from graduate assistants and West Virginia Autism Training Center staff who work to oversee that the student is accessing the services they need to have a successful college experience. 94% of students who have received College Program supports have graduated or are currently on track to graduate. College Program staff are also available to provide Allies Supporting Autism Spectrum Diversity Training to campus departments. The one-hour online or in-person training can be tailored to fit the needs of various populations such as faculty member, peers, community members, and employers. The College Program also hosts a 3-day employment preparedness workshop in June and a high school summer transition program during summer session III.

H.E.L.P. Program

www.marshall.edu/help/ (<http://www.marshall.edu/help/>)

(Focus is on students with learning disabilities.)

Participation in this program requires that students pay for services. The H.E.L.P. Program (Higher Education Learning Problems) is located in Myers Hall, on the Huntington campus of Marshall University. H.E.L.P. is a comprehensive academic support program for Marshall University students with diagnosed Specific Learning Disabilities (SLD) and/or Attention Deficit Hyperactivity Disorder (ADHD). The H.E.L.P. Program offers one-on-one academic tutoring, academic coaching, and diagnostic evaluations. Students participating in the program must have met acceptance criteria for Marshall University and are

considered for entry to the H.E.L.P. Program, via a separate application process.

Confidentiality and Disability Disclosure Statement

Students with disabilities are admitted to Marshall University under the same admittance criteria and process for all students. Students with disabilities are not required to disclose their disability during the admissions process nor during their time at Marshall. However, if they seek accommodations including assistive technology, or auxiliary aids/services they must make their request to the Office of Disability Services.

Accessibility

Marshall University is committed to making all programs, services, and activities fully accessible to students with disabilities.

According to the U. S. Department of Education's OCR Compliance Review No. 11-11-6002:

"Accessible" means a person with a disability is afforded the opportunity to acquire the same information, engage in the same interactions, and enjoy the same services as a person without a disability in an equally effective and equally integrated manner, with substantially equivalent ease of use. Educational benefits and opportunities afforded by technology are "accessible" if a person with a disability is afforded the opportunity to acquire the same information, engage in the same interactions, and enjoy the same services as a person without a disability in an equally effective and equally integrated manner, with substantially equivalent ease of use. A person with a disability must be able to obtain the information and engage in the same interactions as fully, equally, and independently as a person without a disability. Although this might not result in identical ease of use compared to that of persons without disabilities, it still must ensure equal opportunity to the educational benefits and opportunities afforded by the technology and equal treatment in the use of such technology.

Requesting Services

Registration and Documentation

To receive accommodations, assistive technology, and/or auxiliary aides, students must schedule an appointment with the Office of Disability Services Director to register for services. Web conferencing can be arranged for students who have long travel distances, take online courses, or are attending classes at remote campus locations. Students will need to schedule this initial appointment either through email or telephone contact to the Office of Disability Services director. At this initial meeting, students need to provide documentation of their need for reasonable accommodations, assistive technology, and/or auxiliary aids/services.

Please note that the H.E.L.P. Center and Autism Center's College Program have different intake procedures for students. Please contact them directly.

Course Substitution

Students with disabilities may apply for course substitutions or waivers as a reasonable accommodation under the following policy:

Conditions

A student with a disability seeking a course substitution or waiver must meet the following conditions:

- Completion of the Course Substitution/Waiver Form. This form requires that the student attach a recent (within two years) diagnosis of a disability warranting a substitution or waiver. (The form is available in the Office of Disability Services, the H.E.L.P. office, the Buck Harless Student Athlete Program office, college deans' offices, and the office of the Dean of Student Affairs.) A licensed psychologist, a licensed school psychologist, or a properly credentialed education specialist must have made the diagnosis in the case of a learning disability.
- Verification on the Course Substitution/Waiver Form from the dean of the student's college, upon recommendation by the faculty of the department in which the student is a major, that the course for which a substitution is requested is not an integral part of the student's course of study. If the course is integral to the course of study the substitution or waiver request shall not go forward.
- Submission of the Course Substitution/Waiver Form to the Office of Disability Services.

Procedure

Submission of the Course Substitution Form by the student to the Dean or Associate Dean initiates the process. Once the Dean or Associate Dean signs the form, it is forwarded to the Office of Disability Services. The Office of Disability Services confirms that a diagnosis of a disability is presented by the student and that the disability is known to hinder or prevent successful completion of the course of study for which the substitution is requested. If there is no such diagnosis the request is denied. If the appropriate diagnosis is presented the Office of Disability Services proceeds to contact the Academic Dean and Department for which the substitution is requested. All materials submitted by the student are forwarded to these faculty members with a certification that the student has presented a diagnosis of a disability warranting a substitution. The Academic Dean and Department faculty are charged with identifying courses that would constitute appropriate substitution and reporting these courses to the Office of Disability Services.

A student who is denied a course substitution or waiver may appeal in writing within 10 working days to the Provost/Senior Vice President for Academic Affairs, whose decision is final. Students should be aware that a course substitution/waiver would not be valid at any other institution and would have to be approved by the new college or department if the student changes major or declares a second major at Marshall University.

Appeals Process

Students who believe they have been inappropriately denied a reasonable accommodation by the Autism Training Center, the H.E.L.P. Center, or the Office of Disability Services may appeal as follows.

Step One: The student will submit the Accommodation Appeal Form to the Office of Disability Services within two (2) days of the denial of accommodations. This appeal form requires the recommended accommodations as provided by a licensed physician, psychologist or other appropriate medical professional. In addition, the student will provide a written statement indicating why the denial of the accommodations is in error and a potential detriment to the student's ability to participate in curricular and co-curricular activities.

The Office of Disability Services will, within five (5) business days, attempt to informally resolve the appeal. Resolution may be an affirmation of the refusal of the accommodation with a rationale

for the decision, recommend provision of the accommodation, or submission of the appeal form for a Step Two review.

Step Two: If the student is not satisfied with the decision from Step One, he or she may forward the Accommodation Appeal Form within two (2) days of receipt the Step One decision to the Vice President for Student Affairs (VPSA), or his/her designee who will further investigate the appeal. This investigation may involve a meeting with the student, staff of Autism Training Center, the H.E.L.P. Center, and/or the Office of Disability Services, faculty and staff involved in the appeal, and others whose expertise may inform the review. The VPSA will render a decision, including a rationale, in a timely manner within five (5) business days. The VPSA may also submit the appeal form for a Step Three review.

Step Three: If the student is not satisfied with the decision from Step Two, he or she may forward the Accommodation Appeal Form within two (2) days of receipt the Step 2 decision to the Senior Vice President for Academic Affairs and Provost or his/her designee, (VP AA&P), who will further investigate the appeal. The VPAA&P will render a decision, including a rationale, within five (5) business days. The decision of the VP AA&P shall be final.

Failure to Provide An Accommodation or Issues with Providing an Accommodation

Students, the Office of Disability Services, or the faculty or staff who believe an employee of Marshall University failed to or has issues with providing an accommodation approved by the Autism Training Center, the H.E.L.P. Center, and/or the Office of Disability Services will submit the Accommodation Complaint Form to the Office of Disability Services. The Office of Disability Services will, within five (5) calendar days, report to the student and the VPSA the result of an investigation of the complaint and the action taken, if any.

If the Student, the Office of Disability Services, faculty or staff believes that:

- any agreed to resolution of the matter has not been adhered to or followed, or
- the Accommodations are still not being provided,
- no resolution can be reached concerning the issue, or
- there is a dispute regarding how/what accommodations should be provided,

then the matter may be appealed.

Appeal of Failure to Provide an Accommodation

Step One: The student, the Office of Disability Services, the faculty or staff will submit the Accommodation Complaint Form within two (2) days of the issue or incident of providing an accommodation occurs to the Office of the VPSA. This appeal form requires the recommended accommodations as provided by a licensed physician, psychologist or other appropriate medical professional. In addition, the student, Office of Disability Services, the faculty or staff will provide a written statement indicating what resolution attempts, if any, have been taken. Indicate which of the reasons indicated in 2.2 has occurred.

Step Two: The Office of the VPSA will, within five (5) business days, attempt to resolve the appeal. This attempt at resolution may involve a meeting with the student, staff of the Autism Training Center, the H.E.L.P. Department, and/or the Office of Disability Services, faculty and staff involved in the appeal, their director, chair, dean, and/or others whose expertise may inform the review. The Office of the VPSA

will render a decision, including a rationale, in a timely manner within five (5) business days. The VPSA may also submit the appeal form for a Step Three review.

Step Three: If the student, the Office of Disability Services, faculty or staff is not satisfied with the decision from Step Two, he or she may forward, within two (2) days of the Step Two decision, the Accommodation Complaint Form to the Office of the Senior Vice President for Academic Affairs and Provost or his/her designee, (VP AA&P), who will further investigate the appeal. The VP AA&P will render a decision, including a rationale, within five (5) business days. The decision of the VP AA&P shall be final.

The VPAA&P shall have the authority to direct University faculty and staff to provide any accommodation to which the VP AA&P finds that the student is entitled to receive.

Accommodations which have been approved by the Autism Training Center, the H.E.L.P. Department, and/or the Office of Disability Services, must be provided during the appeal process.

If faculty or staff are found to have failed to provide an accommodation after all the measures outlined herein have been exhausted or at any time during the appeal process, then the matter will be referred to The Office of Equity Programs/Title IX for further investigation and possible disciplinary actions.

Right to Accommodation for Any Judicial or Appeal Process

All students with a previously approved accommodation may be entitled to receive reasonable accommodations during any judicial or appeal process. Upon notification by the student, or by the individuals conducting a judicial or appeal process, the Office of Disability Services will coordinate the provision of the accommodation and have the authority to identify how best to provide the accommodation. Provided that, the Student may be required to register to register with the Office of Disability Services to receive those accommodations in accordance with University policy and procedures.

Retaliation Prohibited

No individual may retaliate against the student or any person that assists the student in the receipt of accommodations or this appeal process.

“Retaliate” means to take an adverse action against an individual or subject an individual to conduct that has the purpose or effect of unreasonably interfering with that individual's educational experience, work or academic performances, or creates an educational experience or academic or work environment that a reasonable person would find intimidating or hostile because of something that individual did to further the University's policy for providing accommodations.

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 304-746-2500. 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 authoritative 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 (<http://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

Notification of delays or cancellations at the South Charleston campus will be announced by

1. local media,
2. MU Alert, and
3. 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:

1. Point Pleasant, 304-674-7239;
2. Beckley, 304-252-0719;
3. 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/ (<http://www.marshall.edu/emergency/mualert/>).

Graduate Student Resources

Advocacy and Support, Office of

Michelle Biggs, Assistant Dean of Advocacy and Support

www.marshall.edu/student-affairs/advocacy/ (<https://www.marshall.edu/student-affairs/advocacy/>)
miller138@marshall.edu (miller138@marshall.edu)

Staff within the Office of Advocacy and Support are committed to helping you navigate Marshall University. A trustworthy place and staff, we care, we advocate, and we can refer you to campus and community partners. We want to help you succeed in class and life. We encourage you to maximize your educational experience, and we prepare you for involvement in the larger community and life beyond college. Additionally, we aim to empower you to overcome obstacles and to assist in resolving issues

Bookstore

www.bkstr.com/marshallstore (<https://www.bkstr.com/marshallstore/>)

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 (<http://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.-200 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 (<http://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 Education

Cristina McDavid, Director

career@marshall.edu
www.marshall.edu/careereducation (<http://www.marshall.edu/careereducation/>)

The Office of Career Education assists students in all phases of professional development leading to a career including self-assessment of skills, interests, and career goals as well as exploring and declaring a major. Career Coaches also guide students in effective resume-building and interviewing skills. In addition, students are offered practical, hands-on techniques for networking and searching for part-time, internship, and entry-level employment.

The office is located on the corner of 5th Avenue and 17th Street (Huntington).

Child Development Academy

www.marshall.edu/cda (<http://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 (<http://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. Students can also use WellTrack for wellness resources (marshall.welltrack.com/ (<https://marshall.welltrack.com/>)).

Disability Services

Stephanie Ballou, Director

www.marshall.edu/d (<http://www.marshall.edu/d>) (<http://www.marshall.edu/disabled/>) (<https://www.marshall.edu/disability/>)

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.

Please see "Students with Disabilities" in the section titled "University Policies and Procedures."

Graduate Student Council

www.marshall.edu/gsc (<http://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 (<http://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.

Please see "Students with Disabilities" in the section titled "University Policies and Procedures."

Housing and Residence Life

Mistie Bibbee, 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/.

Information Technology

www.marshall.edu/it (<http://www.marshall.edu/it/>)

Information Technology at Marshall University provides and creates an evolving, reliable, innovative, integrated and service-oriented information technology environment. This environment empowers, enhances and engages the academic, support and research activities of the university by delivering effective IT products and services that help students, faculty, and staff to achieve their goals. The IT Service

Desk provides the university community with technical support services on a variety of issues and platforms. Technical assistance is available in person, on the telephone, or online via e-mail and live chat. Some of the more common visits to the service desk include assistance with username/password issues, connecting to MU WiFi, setting up e-mail on mobile devices, and downloading software.

Intercultural Affairs

Maurice Cooley, Vice President

www.marshall.edu/mcip (<http://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/m (<http://www.marshall.edu/student-affairs/supportservices/military-veteran-affairs/>)ilitary (<https://www.marshall.edu/military/>)

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 also works with military dependents and their families. The office is located in Gullickson Hall 211. Telephone is 304-696-2364 or 304-696-5767.

MUOnline

Monica G. Brooks, Associate Vice President for Libraries and Online Learning
University Libraries

306 Drinko Library/304-696-6474

www.marshall.edu/muonline (<http://www.marshall.edu/muonline/>)
muonline@marshall.edu

MUOnline: 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 distance education courses and programs.

Online Learning: The Marshall University distance education program is supported by four Instructional Design specialists and a team of

well-trained student developers who aid faculty in developing and delivering online and hybrid courses. In addition to development support, the MUOnline Instructional Designers center staff also provide regular training and workshop opportunities to faculty who participate in any aspect of online course delivery and support.

The *Online Learning Instructional Design Center*, located in the Drinko Library room 235, 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 hybrid or face-to-face 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.

Online course development is facilitated and approved by faculty peers. The Distance Education Course Committee (DECC) is coordinated by a member of the faculty who provides guidance, support, and training. The DECC conducts regular online course reviews to ensure that new and existing online faculty meet best practices and technical requirements for delivery. The DECC was formed in 2002 under its original name, Faculty Development Committee for Online and Multimedia Instruction, with the ongoing responsibility to evaluate newly developed online courses according to a set of standard requirements formulated by the committee. DECC 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.

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 DECC 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, Library and Online Learning 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 University 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. Designation: Virtual Course (VC).

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 (<http://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, e 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 (<http://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 (<http://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.

Speech and Hearing Center

Pamela J. Holland, Director

www.marshall.edu/commdis/mushc (<http://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 (<http://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

www.marshall.edu/studenthealth/ (<https://www.marshall.edu/studenthealth/>)

Student Health Services are provided by Marshall Health, 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 visit¹ 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.¹

Prescription medications, as ordered by the medical staff, are provided from a formulary with a \$5 co-payment. See Pharmacy Services for more details.

¹ Policies and fees are subject to change.

Student Life

Matt James, Assistant Dean of Student Life

james65@marshall.edu

www.marshall.edu/student-affairs/student-involvement/ (https://

www.marshall.edu/student-affairs/student-involvement/)

The Office of Student Affairs is dedicated to fostering an educational, entertaining and exciting environment outside of the classroom. With over 240 active student organizations, 19 Greek-lettered social fraternities and sororities, an active community outreach and volunteer services office, and various recreational sports teams, you will never not find something to do! Explore this part of our website and become familiar with the countless excellent opportunities available to you. Get out of your residence hall, come to campus and get involved!

Student Transportation

All Marshall students are connected to the Tri-State Transit Authority's entire regional line through Marshall's partnership with TTA. The Green Machine is the student TTA bus with stops specifically relevant to the Marshall community. So whether you need to get downtown for an art class, go grocery shopping at Kroger or Walmart, or take a day trip to the mall, all it takes is a swipe of your MUID to ride. Download the RouteShout v2 app for live bus tracking, or visit www.tta-wv.com for a full list of buses, schedules and stop times.

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.

Women's and Gender Center

Leah Tolliver, Director; Claire Snyder, Coordinator

<https://www.marshall.edu/wcenter/>

696-3338, Old Main

The Marshall University Women's Center serves to foster the personal growth and development of women as independent, confident, and healthy individuals. We seek to expand understanding within the University community of personal, political and social issues of concern and interest to women. The Women Center is committed to being a multicultural affirming resource through which women of varying race, ethnicity, sexual orientation, religion, ability, and chronological age are encouraged to seek out our services and participate in our programs and event. We strive to be a place for all men and women to gather and explore and celebrate the richness and diversity of life.

The center provides information, educational programming, training, referrals, victim advocacy, and services to facilitate education on issues related to feminism, women, men, and gender. The center organizes events of interest to women and men such as discussion groups, speaker series, workshops, festivals, and films. The center also maintains a resource library with information on sexual assault, stalking, domestic violence, dating violence, sexual harassment, women's health, body image, eating disorders, and date rape drugs.

Violence Prevention and Response Program

Leah Tolliver, Director; Liv Giovingo, coordinator

www.marshall.edu/violence-prevention/ (https://www.marshall.edu/violence-prevention/)

304-696-5701

The Violence Prevention & Response Program is dedicated to creating and maintaining a safe and respectful campus environment by leading comprehensive and collaborative prevention initiatives, fostering a culture of community responsibility, and offering advocacy and support services to victims of interpersonal violence.

Wellness Center

Leah Tolliver, Director, Jeannie Harrison Coordinator

www.marshall.edu/wellness/ (https://www.marshall.edu/wellness/)

MUWellness@marshall.edu

A healthy lifestyle is the foundation for success and fulfillment, and the habits created in college can be carried throughout one's life. The Marshall Wellness Center is committed to nurturing the physical and mental health of students in order to help them achieve academic success, personal development and lifelong wellness through education, health promotion, and community building.

Wellness Center Services

- Alcohol and drug education, online training, and personal risk reduction meetings
- Tobacco cessation resources
- Sexual health testing, education, and resources
- Stress management programming and resources
- Recovery support and resources
- Campus events and volunteer opportunities

Writing Center

Laura Sonderman, Director

www.marshall.edu/writingcenter (<http://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 Information and Resources

Academic Affairs

Jaime Taylor, 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, Associate Vice President for Libraries and Online Learning

University Libraries

306 Drinko Library/304-696-6474

library@marshall.edu

www.marshall.edu/library (<http://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 Cabell Huntington Hospital, and the Library and Research Commons on the South Charleston campus. Together, the University Libraries' holdings support teaching and research needs, with close to 3 million total items (including government publications and audiovisual materials) and access to more than 50,000 periodical titles.

Students may use print and electronic books, periodicals, documents, CD-ROMs, videocassettes, sound recordings, electronic journals, online reference materials 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 format, often in a matter of hours. Courier services also enhance turnaround time and overcome geographical limitations.

The *John Deaver Drinko Library* is open 24/5 and houses more than 150,000 volumes, current print 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 over 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 *Library and Research Commons* on the South Charleston campus is located in the Robert C. Byrd Academic and Technology Center. This facility supports the undergraduate and graduate programs offered on this campus. Access to all Marshall Libraries electronic resources is available, along with a professional staff to assist students and faculty with their information and research needs. 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. The Library and Research Commons is also the site on the South Charleston campus for taking Marshall photo IDs. For details on services and hours, go to the South Charleston library's home page at www.marshall.edu/musclibrary (<http://www.marshall.edu/musclibrary/>).

Center for Teaching and Learning

Karen McComas, Executive Director

www.marshall.edu/catl (<http://www.marshall.edu/catl/>)

The mission of the Center for Teaching and Learning (CTL) is to empower faculty in their teaching and research by cultivating a campus culture that values pedagogical, disciplinary, and program-based inquiry in support of student learning. More specifically, CTL provides opportunities for faculty to engage with, and develop, the

instruments of teaching and learning (e.g., curricula and pedagogy) and the processes of teaching and learning (e.g., data-driven teaching strategies, 2017-18 Undergraduate Catalog Learning Opportunities and Resources 55 reflective and metacognitive practices). In addition to professional development opportunities, the center administers the annual faculty awards, conducts classroom observations, directs a New Faculty Orientation program, hosts an annual teaching conference, and maintains a library of resource books related to a variety of teaching and learning topics. Housed within CTL are the Writing Across the Curriculum and Community-Based Learning programs.

Community-Based Learning

C. Damien Arthur, Director

304-696-2764

www.marshall.edu/cbl (<http://www.marshall.edu/cbl/>)

Marshall University Community-Based Learning assists faculty, students, and community partners in course-specific collaborations that connect learning objectives to public service and civic engagement. The combination of Community-Based Learning and academic theory enhances personalized education for students and creates opportunities to connect key course concepts with relevant real-world experiences. Engaging the community empowers students as learners, teachers, achievers, and leaders as students can make a more meaningful and long-term impact on Marshall University and in the community. CBL will empower students who want to become more involved with the community and who wish to learn in an interactive, transformative environment. Community-Based Learning is a mechanism by which the university mission is enhanced. A course in which all learning is passive memorization and library research will not create an environment wherein students can reach their full learning potential. Therefore, the inclusion of CBL in coursework enhances student research skills and offers them an opportunity to participate in community transformations. CBL coursework provides an element of pedagogy that propels students towards future successes. Participating in Community-Based Learning courses also provides students with the tools they need to be successful in the working world, providing resume-building opportunities and potential contacts for employment.

Information Technology

www.marshall.edu/it (<http://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 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/it/itc/policies/ (<https://www.marshall.edu/it/itc/policies/>).

Computer Purchases

Recommendations on student computer purchases are available online at www.marshall.edu/it/recommendations (<http://www.marshall.edu/it/recommendations/>).

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/it (<http://www.marshall.edu/it/>).

Information Security

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

You can always get updated information on the main university IT page located at www.marshall.edu/it (<http://www.marshall.edu/it/>) or by contacting the IT Service Desk at itservicedesk@marshall.edu or by calling 304-696-3200.

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 (<http://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/student-guide (<http://www.marshall.edu/it/student-guide/>).

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.

International Student Services

Tammy Johnson, Dean of Admissions and Enrollment Services

www.marshall.edu/cip (<http://www.marshall.edu/cip/>)

The Office of International Student Services 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 office: International Students and Scholars Program, Study Abroad Programs, China Projects, and global academic partnerships and agreements.

Academic Requirements and Regulations

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/ (<http://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 Course Grade or an Action Based on Academic Performance or Dishonesty

This section presents the process for students wishing to appeal a course grade, dismissal or sanction based on academic performance or conduct, or charge of academic dishonesty. For other complaints, please see the Administrative Steps for Filing a Complaint section.

The following is a 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.

Course Grade Appeals

Students may only appeal the final course grade, not grades for individual assignments. Moreover, course grades may be appealed only under the following conditions:

1. The grade assigned for a course reflects an error in calculation or reporting (e.g., a computational error, oversight of submitted materials, or posting the wrong grade);
2. Standards different from those established in the written department or Graduate College policies, if specific policies exist, were used in assigning the grade;

3. The instructor departed from his or her previously articulated, written standards, without notifying graduate students, in determining the grade.

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 extraordinary circumstances require urgent action.

Step 2) Submit Course Grade Appeal (located online at www.marshall.edu/graduate/graduate-student-appeals (<http://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 Course Grade Appeal to the department/unit head in which the grade was issued and the instructor's response. Note that Course Grade Appeal 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 Course Grade Appeal and required materials.

Step 3) Submit Course Grade Appeal to the Graduate College Dean: Submit Course Grade Appeal, 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

Students may appeal their dismissal from an academic program, sanction from an academic program based on the student's academic performance or conduct, or finding of academic dishonesty.

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 Performance Appeal form (located online at www.marshall.edu/graduate/graduate-student-appeals (<http://www.marshall.edu/graduate/graduate-student-appeals/>)) to the Graduate College Dean: Within thirty (30) days of receiving notification of the action, submit Performance Appeal 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: Submit the response from Step 2, which will include the Graduate College Dean's Response, to the Graduate College Dean and request a hearing of the Graduate Council. The Graduate Dean will forward all materials to the chair of the Graduate Council, who will then form a subcommittee of no fewer than three members of the Graduate Council. 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 the Performance

Appeal 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.

Concerns About the Operation of an Academic Program, Academic Department, College, or University Office

The faculty, staff, and administration want all students to have a rewarding experience as they pursue their education. Students who have concerns or complaints regarding the operation of an academic program, academic department, college, or university office, should contact the appropriate director, head, or dean. The university's directory lists the leadership of each office.

Please refer to the Administrative Steps for Appealing a Course Grade or an Action Based on Academic Performance or Dishonesty for the process to appeal a course grade, dismissal from a program, or charge of academic dishonesty.

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. Students may repeat courses for which they earned a low grade. Please review Repeating Courses for more information. 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 and Pharmacy Students

Medical School and School of Pharmacy students should consult the appropriate publications of their schools 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
 - a. of his/her failure to meet or maintain an academic standard,
 - b. of the methods, if any, by which the student may correct the failure, and
 - c. 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.
- 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 Graduate Degree Options

Marshall University offers an accelerated path through a number of its master's degree programs. We encourage qualified undergraduates to participate in an Accelerated Graduate Degree (AGD) option, as it allow them to complete the requirements for the baccalaureate and graduate degree in less time and at lower cost.

Undergraduates accepted into an AGD program can begin taking graduate coursework during their senior year. Programs offering an accelerated master's degree option may allow up to 12 hours of graduate level coursework. Programs offering an accelerated doctoral degree option may allow up to 18 hours of graduate level coursework.

Programs may use one of two models for the AGD option. For those offering a 3+ graduate option, the department may allow specified graduate-level courses to double-count as fulfilling a portion of the bachelor's and master's degree requirements. For those offering an accelerated graduate degree option, the department will specify the graduate-level courses that to double count as fulfilling a portion of the bachelor's and master's degree requirements and those graduate-level courses that will serve as electives for completion of the baccalaureate degree but not the graduate degree. Each program offering an AGD will clearly list how students may count courses for both degrees in the description of the degree options presented subsequently in this catalog.

Advantages of an Accelerated Degree

- complete the bachelor's degree with fewer credit hours (*Note:* Students must meet all other degree requirements for the bachelor's degree);
- begin work on the graduate degree during the senior year;
- complete a portion of graduate credits paying undergraduate tuition rates;
- earn a bachelor's and graduate degree in less time.

Eligibility Requirements for Accelerated Graduate Degree

- 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:* AGD 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 AGD 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 AGD 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 AGD program is subject to the approval of the Plan of Study by the Dean of the Graduate College.
3. Students accepted into the AGD 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 AGD Degree Program

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

Withdrawal from the AGD

A student may withdraw at any time from an approved AGD 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 AGD

- Criminal Justice
- Geography
- Health Informatics
- Mechanical Engineering

- Political Science
- Psychology
- Public Health
- 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 (<http://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. Applications for graduation, prior to the published deadline, are completed through myMU.

For diploma fee information, see "Special Student Fees" at www.marshall.edu/bursar (<http://www.marshall.edu/bursar/>). 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 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 Admissions office 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 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-2 (<http://www.marshall.edu/graduate/current-students/forms-and-information-2/>) 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;
 - day of Commencement in December;
 - day of Commencement for the spring semester.
- Students who complete all requirements for a degree at any time other than the above dates will be graduated on the next successive date. Students will not be graduated on any dates other than those noted above. Students who are graduated at the end of summer terms are invited to attend the fall Commencement Exercises.

Comprehensive Assessment

In addition to all general requirements for graduate degrees, each student will complete a comprehensive assessment that reviews the student's content knowledge, mastery of disciplinary or creative or research methods, critical analysis, comprehension of disciplinary theory and perspectives, and ability to apply these to comprehensive questions related to the discipline. 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 dissertation committee would be understood to serve as the final Comprehensive Assessment Committee, if that doctoral dissertation project is considered to be the final comprehensive assessment. For additional information, see specific requirements in the appropriate program section as each program has unique options for fulfilling this requirement. Responsibility for development, scheduling and administration of the comprehensive assessment rests with the faculty of the student’s program and the appropriate dean.

The Comprehensive Assessment is the final assessment of the student’s capacity to complete scholarly research or creative work in the discipline. Typical letter grades are not assigned to the Comprehensive Assessment as the student is expected to demonstrate a level of competence equivalent to others who have earned the degree to be awarded. In other words, expectations for performance are higher than those for individual courses.

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

Letter Grade	Description
E	Pass with distinction, indicating superior performance. This distinction is reserved for only those students whose performance far exceeded expectations established by the department.
P	Pass, indicating competent performance (equivalent to a B grade or higher).
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, consisting of at least two faculty members with the appropriate graduate faculty status, 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 member(s) 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 (p.).

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 Medical Science, M.M.S.
- 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 Mechanical Engineering, M.S.M.E.
- Master of Science in Electrical Engineering, M.S.E.E.
- Master of Science in Nursing, M.S.N.
- Master of Social Work, M.S.W.
- Education Specialist, Ed.S.
- Doctor of Education, Ed.D.
- Doctor of Nurse Anesthesia Practice and Management, D.N.A.P.
- 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.

Several programs maintain a policy that stipulates dismissal of students who earn two grades of *C* or less. Repeating a course for a higher grade does not negate the existence of the former grade. As such, a student may be dismissed from the program upon earning a second grade of *C* or less even if the student repeated a course and earned a higher grade. Students are advised to review with care the degree requirements for their program of study in the *Graduate Catalog* published the year they began the program.

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 *and* Repeating Courses for more information.

Doctoral Degrees

Marshall University follows The U.S. Department of Education's definition of a doctoral degree as an earned degree that carries the title of Doctor. The Doctor of Philosophy degree (Ph.D.) requires mastery within a field of knowledge and demonstrated ability to perform scholarly research. Other doctor's degrees are awarded for fulfilling specialized requirements in professional fields, such as education (Ed.D.), management practice in nurse anesthesia (D.M.P.N.A), pharmacy (Pharm.D.), physical therapy (D.P.T.), and psychology (Psy.D.). (<https://nces.ed.gov/programs/coe/glossary.asp>)

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 Nurse Anesthesia Practice and Management (D.N.A.P.) 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 Individual Courses

- *Day classes:* Students can drop individual courses after the Schedule Adjustment period and during the Withdrawal period which lasts until the Friday of the tenth week of class during a regular semester. The exact last day for dropping individual courses is always published in the Academic Calendar for any given semester or term. A student must get a "Schedule Adjustment and Class Drop Form" from the Registrar's Office, or any departmental office, fill in the required course drop information, and then obtain the signature of the course instructor. If a student is on academic probation, he/she must also get the approval and signature of the Graduate Dean associate dean of his/her college and bring the completed form to the Registrar's Office, or the registration area in South Charleston.
- *E-Course Withdrawal Period:* The withdrawal policy for e-courses parallels that for regular courses. A student can withdraw from an individual e-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 e-courses also parallels that of regular courses.
- *Night or Off-Campus classes, or E-Courses:* Classes that meet at 4:00 p.m. or after, off campus, or online do not require instructor signature and may be withdrawn in person at the Office of the Registrar, by sending an e-mail from the student's MU e-mail address to registrar@marshall.edu, or by mailing a request for withdrawal to the Registrar. If a student is on academic probation he/she must have the approval signature of his/her associate dean. The date of the e-mail or postmark on mail requests is 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.

The student must submit a withdrawal form to the Registrar, e-mail registrar@marshall.edu, or mail a request for withdrawal to the Registrar. The effective date of withdrawal is the date that the withdrawal form is submitted to the Registrar. The date of the e-mail or postmark on mail requests is 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 withdrawal 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. Students wishing to drop a course after the last day to withdraw must withdraw from all courses in which they are enrolled. 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 an areas of emphasis in Curriculum and Instruction. 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 Graduate 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.

See Repeating Courses for more information.

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:

Letter Grade	Description
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 (<http://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.

Grade Point Average and Other Requirements for Graduation

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

- Only grades of *C* or better may be used to fulfill degree requirements and no more than six hours of *C* may be applied toward fulfilling the degree. All students should review their degree program with care as some programs may have more stringent requirements.
- In addition to thesis/dissertation credit, up to six hours of *CR* or *S* may be included within a degree program. These grades do 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. All students should consult their degree program as many require more than 30 hours for the degree.
- Students must complete a minimum of 18 hours in the major subject. The major department may optionally require a minor with a minimum of 6 hours in another subject.
- With the approval of the advisor, students may complete courses in a third field. In special teacher-education curricula, courses may be distributed among several fields with the approval of the advisor.
- Graduate courses range in number from 500 to 899. Selected courses allow enrollment of undergraduate as well as graduate courses with undergraduates enrolled in the 400 level section and graduate students enrolled in the 500 level section. The graduate students enrolled in these courses will complete more work than undergraduates including, but not limited to, additional extensive reading, additional course projects, and other tasks the instructor deems necessary for graduate course credit.
- A Marshall University course taken at the 400 level cannot be retaken at the 500 level; it will not be applicable to the graduate 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 greater.
- Students whose Plan of Study requires a thesis or dissertation must complete all required course work as specified in the previous points and have the manuscript of the thesis/ dissertation approved for publication in the ProQuest database (www.proquest.com/index (<https://www.proquest.com/index/>)) by the Dean of the Graduate College.

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. Some programs may require specific performance on a national exam as a requirement for graduation.

During the seven-year time limit, Marshall University reserves the right to advise students pursuing the master's or Ed.S. degrees of their status on academic performance related to the probability of receiving a degree within the prescribed time limit.

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.

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 follows The U.S. Department of Education's definition of a master's degree as a degree awarded for successful completion of a program generally requiring 1 or 2 years of full-time college-level study beyond the bachelor's degree. The Master of Arts (M.A.) and the Master of Science (M.S.) are programs offered by several of the university's colleges for advanced scholarship in the discipline and demonstrated ability to perform scholarly research. A second type of master's degree is awarded for the completion of a professionally oriented program of study in business administration (M.B.A.), education (M.Ed. and M.A.T.), engineering (M.S.E.), journalism (M.A.J.), nursing (M.S.N.), public health (M.P.H.), social work (M.S.W.), and public administration (M.P.A.) (<https://nces.ed.gov/programs/coe/glossary.asp>)

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/Emergency Withdrawal Policy

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

A student may request and be considered for a medical or emergency withdrawal when extraordinary circumstances, such as a serious illness, injury, or catastrophic situation prevents the student from continuing classes. The policy covers physical and mental health, as well as life-changing difficulties.

A medical/emergency withdrawal from the university will constitute a full withdrawal from all academic classes for the requested semester, with the exception of those classes whose completion dates occurred prior to the withdrawal. Refund of tuition and fees will be a separate determination, as will eligibility for future financial aid. These decisions will follow policies, guidelines and schedules set forth by the university and state and federal government.

If a student is currently enrolled, consideration should be given to withdrawing from those courses through the regular process prior to requesting a medical/emergency withdrawal.

A request for a medical/emergency withdrawal must be filed within six months of the end of the semester involved unless the student can provide rationale and documentation to show that it was not possible to make the request within this timeframe. Students may apply for a medical/emergency withdrawal by following the guidelines provided below. Application for a medical/emergency withdrawal does not guarantee that a withdrawal will be granted. All requests are evaluated on an individual basis.

All students requesting a medical/emergency withdrawal submit a complete packet of information to the Associate Dean of Student Affairs. The packet must include:

1. Completed Request for medical/emergency withdrawal in the form of a typed, signed letter, or e-mail from the student's Marshall e-mail account, explaining how the illness, condition, or situation affected their ability to maintain their status as a student at the university and why withdrawing from courses through the regular process is/was not an option for them. The request must also include the student's Marshall ID number and mailing address. Incomplete grades in courses may be arranged in compliance with university policy, and may be an option for students to consider instead of a medical/emergency withdrawal.
2. *For medical withdrawal:* Typed letter from the student's treating physician(s) recommending a withdrawal for medical reasons. The letter must state the specific rationale for the recommendation, including diagnosis or medical impressions; why the illness or condition prevented the student from maintaining their status as a student at the university; the effective date of the onset of the illness or condition; dates of treatment; and anticipated date of resolution, if applicable. The letter must be on official letterhead and must be signed by the service provider. The letter may be faxed from the treatment provider's fax machine. Medical information will be kept confidential.

For withdrawal due to catastrophic event: Documentation sufficient to support the student's claim of involvement in a catastrophic situation. Said documentation will vary depending on the situation and should follow guidelines set forth by the Associate Dean of Student Affairs.

A request for a medical/emergency withdrawal without the supporting rationale will not be considered.

3. Complete Medical/Emergency Withdrawal Consultation Form, Financial Aid.
4. Complete Medical/Emergency withdrawal Consultation Form, Residence Services (if applicable)
5. Complete Medical/Emergency withdrawal Consultation Form, International Students (if applicable)
6. Other relevant supporting documentation as needed.

If the withdrawal is granted, the student will be unable to register for classes until he or she provides the Office of Student Affairs with a letter from their health care provider(s) (in the case of a medical withdrawal) releasing the student to return to the university and outlining the student's sufficient ability to manage coursework at Marshall. In the case of a catastrophic event, the student must provide a written statement that outlines the satisfactory resolution of the negative impact of the event.

The Office of Student Affairs will send a notice to the student regarding the outcome of the medical/emergency withdrawal request.

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 Hybrid 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 (<http://www.marshall.edu/bursar/>). Students may visit www.marshall.edu/muonline (<http://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. See Repeating Courses for more information.

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.

Repeating Courses

Students who earn a grade of C or less may repeat the course with the goal of earning a higher grade. If the course is required for the student's plan of study, the more current grade will be used to fulfill degree requirements. All course grades, original and repeated, will be listed on the student's *Plan of Study* and transcript and will be used in the calculation of GPAs.

Several programs maintain a policy that stipulates dismissal of students who earn two grades of C or less. Repeating a course for a higher grade does not negate the existence of the former grade. As such, a student may be dismissed from the program upon earning a second grade of C or less even if the student repeated a course and earned a higher grade. See Grade Point Average and Other Requirements for Graduation for more information. See also *Effects of Repeated Courses* in the *Student Financial Assistance* section.

Revalidation of Coursework

See *Time Limitation*.

Roles and Responsibilities of the Thesis/Dissertation Committee

The roles and responsibilities of the faculty serving on a student's thesis/dissertation committee are manifold. In essence, the members of the committee help the student demonstrate the ability to plan and execute a scholarly and creative project while developing an expertise within the discipline. To this end, the members of the committee advise the student to ensure he or she has identified a project that will sufficiently challenge his or her skills, make use of appropriate disciplinary research and creative methods, and be completed using available resources in a timely manner. The members of the committee also ensure the highest quality of the published thesis/dissertation by requiring the student to submit a final thesis/dissertation that conforms to the preferred editorial guidelines of the discipline and the Graduate College. As such, the signature page included in the thesis/dissertation verifies that the faculty have read with care the thesis/dissertation to ensure the student's work is without error in the form, substance, and expression of the student's work. The members of the committee sign this page once the student has prepared a formal draft of the approved thesis/dissertation and affirm that the work meets the editorial standards of the Graduate College. The Graduate College will review the thesis/dissertation and may require revisions to ensure the work meets the required editorial guidelines before the thesis/dissertation is released for publication.

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 (<http://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.
- 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/Dissertation

Several degree programs require or allow a student to prepare a thesis/ dissertation as partial completion of the degree requirements. These programs will specify the number of credits required for the thesis/dissertation project. If optional, the thesis/dissertation advisor and student will design a project that meets departmental requirements and the student's needs and interests.

Students pursuing a master's degree 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.

Each student planning to write a thesis/dissertation will, in collaboration with his or her advisor, form a thesis/dissertation committee. Membership on the committee is determined by Board of Governor's Policy AA-20 which stipulates who may chair and serve on the committee. All thesis/dissertation committees must have at least a chair and two qualified faculty members. Before starting the thesis/dissertation research, the student must submit required documentation to the Office of Research Integrity (<https://www.marshall.edu/ori/>) for approval.

- Students pursuing a master's degree who will prepare 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 CHM 682 Research. The student continues to register for Thesis 681 or CHM 682 Research, as appropriate, and pay tuition for the number of hours per semester as agreed to between the student and the thesis advisor.
- Students pursuing a doctoral degree who will prepare with a dissertation will enroll in thesis hours as directed by the student's Plan of Study.
- Depending on the department's published grading system, the thesis/dissertation advisor reports an appropriate grade 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/dissertation must be prepared according to the instructions provided at the Graduate College website, www.marshall.edu/graduate/current-students/edt (<http://www.marshall.edu/graduate/current-students/edt/>).
- When completed, the student submits a manuscript to the advisor and committee for tentative approval. The candidate must then give a presentation open to the academic community based upon the results of the thesis/dissertation and give a satisfactory defense of the work before the committee. Upon successful defense of the thesis/dissertation, the advisor with the concurrence of the committee assigns a grade which applies to all hours earned for the thesis.

- The members of the student's committee may require revision of the manuscript before it may be submitted for publication. Upon completion of all required revisions, they will submit the manuscript for publication following the instructions for electronic theses and dissertations (ETD's) located at: www.marshall.edu/graduate/current-students/edt (<http://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. The student is eligible to graduate once the Graduate Dean submits the manuscript for publication.
- The advisor may report a final grade of *F* or *NC* 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.

Value and Nature of Thesis/Dissertation

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/dissertation may be of great value. To be urged to write a thesis/dissertation is a compliment to one's ability. The presentation and oral defense of the project emphasizes the importance of graduate student research in the academic environment and give public credit to the student's achievements. The objectives of a thesis/dissertation project 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 graduate degree;
- Demonstrated the ability to write in a professional and scholarly style;
- Produced a study that is of value to the subject field or professional education.

Three-Plus-Two Programs

See Accelerated Graduate 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 course work 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 \$10.00 for paper copies and \$12.00 for electronic copies, and requests will be processed within 1 to 2 business days of receipt. Processing time may be extending at the end of a term due to posting grades and degrees. Students with outstanding financial, social, or other obligations forfeit rights to a transcript until the obligations are resolved. Requests for official transcripts can be completed at www.marshall.edu (<http://www.marshall.edu>), faxed, or

made in person at the Office of the Registrar. Students may obtain unofficial transcripts at no cost at the Office of the Registrar or through 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.

Students may not transfer courses completed seven years before the transfer request. Students may not revalidate transfer courses. If a transfer course is no longer valid, the students will need to complete an equivalent Marshall University course.

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 (<http://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 (<http://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, 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.

Degree Programs by College

College of Arts and Media

Dr. Wendell Dobbs, Interim Dean

www.marshall.edu/cam (<http://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. Avinandan Mukherjee, Dean

www.marshall.edu/cob (<http://www.marshall.edu/cob/>)

- Accountancy, M.S.
- Business Administration, M.B.A.
- Health Care Administration, M.S.
- Health Informatics, M.S.
- Human Resource Management, M.S.
- Doctor of Nurse Anesthesia Practice and Management, D.N.A.P.

Other programs: graduate certificates in Accessibility Awareness (interdisciplinary with College of Engineering and Computer Sciences), Data Analytics for Health Care, and Nursing Informatics

College of Education and Professional Development

Dr. Teresa Eagle, Dean

www.marshall.edu/coepd (<http://www.marshall.edu/coepd/>)

- Adult and Continuing Education, M.S.
- Counseling, M.A., Ed.S.
- Curriculum and Instruction, Ed.S.
- Doctor of Education, Ed.D.
- Education, M.A.
- Leadership Studies, M.A.
- 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 (<http://www.marshall.edu/cohp/>)

- Athletic Training, M.S.
- Biomechanics, M.S.
- Communication Disorders, M.S.
- Dietetics, M.S.
- Exercise Science, M.S.
- Nursing, M.S.N.
- Physical Therapy, D.P.T.
- Public Health, M.S.
- Social Work, M.S.W.
- 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 Engineering and Computer Sciences

Dr. David Dampier, Interim Dean

www.marshall.edu/cite (<http://www.marshall.edu/cite/>)

- Computer Science, M.S.
- Cybersecurity, M.S.
- Data Science, M.S.
- Electrical and Computer Engineering, M.S.
- Engineering, M.S.E.
- Environmental Science, M.S.
- Information Systems, M.S.
- Mechanical Engineering, 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 (<http://www.marshall.edu/cola/>)

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

Other programs: minors in Anthropology, 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, Public History, Women's Studies

College of Science

Dr. Charles Somerville, Dean

www.marshall.edu/cos (<http://www.marshall.edu/cos/>)

- Biological Sciences, M.A., M.S.
- Chemistry, M.S.
- Criminal Justice, M.S.
- Cyber Forensics and Security, M.S.
- Forensic Science, M.S.
- Mathematics, M.A.
- Physics, M.S.
- Physics and Applied Sciences, M.S.

Other program: graduate certificate in Bioinformatics

Joan C. Edwards School of Medicine

Dr. Joseph Shapiro, Dean

<http://musom.marshall.edu>

- Biomedical Research, M.S., Ph.D.
- Clinical and Translational Science, M.S.
- Physician Assistant, M.M.S.

Other program: graduate certificate in Digital Forensics

School of Pharmacy

Dr. Gayle A. Brazeau, Dean

www.marshall.edu/pharmacy (<http://www.marshall.edu/pharmacy/>)

- Pharmacy, Pharm.D.
- Pharmaceutical Sciences, M.A., M.S.

Graduate Programs A-Z

A

- Accessibility Awareness, Graduate Certificate (p. 160)
- Accountancy, M.S. (p. 86)
- Adult and Continuing Education, M.S. (p. 121)
- Anthropology, Minor (p. 241)
- Appalachian Studies, Graduate Certificate (p. 241)
- Athletic Training (Professional), M.S. (p. 193)

B

- Behavioral Statistics, Graduate Certificate (p. 242)
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- Biological Sciences, M.A. (p. 275)
- Biological Sciences, M.S. (p. 276)
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- Biomedical Research, M.D./Ph.D. (p. 293)
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C

- Chemistry, M.S. (p. 277)
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College of Arts and Media

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cam@marshall.edu

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Courses

Journalism and Mass Communications

JMC 500 Digital Imaging II**3 Credit hours**

Advanced methods of taking and editing still and video images for print, broadcast and online publication.

Grade Mode: Normal Grading Mode

JMC 501 Multi-Media Writing**3 Credit hours**

Principles and techniques of cross-media news writing for graduate student reporters and public relations professionals who have no prior experience in news writing.

Grade Mode: Normal Grading Mode

JMC 502 Law of Mass Communication**3 Credit hours**

Legal aspects of mass communications as they apply to the professional journalist.

Grade Mode: Normal Grading Mode

JMC 504 Hist Am JRN & Mass Comm**3 Credit hours**

The development of the press in the United States, the contributions of American journalist, the rise of radio and television, and the relationship of communication developments to political, economic and social trends in America.

Grade Mode: Normal Grading Mode**JMC 506 Branding****3 Credit hours**

Creative direction in developing the personality, reputation, appearance and character of great brand consistent in all aspects of a brand.

Grade Mode: Normal Grading Mode**JMC 508 Research and Analytics****3 Credit hours**

Introduction to methods and tools used to monitor, inform and evaluate advertising-public relations decisions including applications of research methods and analytics.

Grade Mode: Normal Grading Mode**JMC 510 Magazine Editorial Prac****3 Credit hours**

Study of the organization, and functions of the magazine editorial department, with practice in planning magazine content, laying out pages and establishing production procedures.

Grade Mode: Normal Grading Mode**JMC 514 Reporting Public Affairs****3 Credit hours**

Advanced instruction in cross media reporting local, state, and federal government; politics, finance, and labor; social and environmental issues, with emphasis on background and interpretation. Course includes field trips and guest speakers.

Grade Mode: Normal Grading Mode**JMC 515 Content Strategy****3 Credit hours**

Students will analyze advertising-public relations content problems, propose strategic solutions, create content and present strategies. Students will write, design and produce content for a variety of media. 3 hours.

Grade Mode: Normal Grading Mode**JMC 524 Media Strategy****3 Credit hours**

Focuses on the delivery of advertising-public relations messages with attention to the development of audience personas, content management and analytics for traditional, digital and social media.

Grade Mode: Normal Grading Mode**JMC 530 Magazine Article Writing****3 Credit hours**

Fundamentals of researching and writing popular, factual magazine articles; techniques of selling articles to magazines.

Grade Mode: Normal Grading Mode**JMC 532 AD-PR Video Production****3 Credit hours**

Students will create and produce various informational, promotional, and training videos for companies and organizations. Students will learn to make and critique AD-PR videos that inform, persuade and entertain. Development of the use of video for communication and instruction in businesses, agencies, and education. Production and utilization of video units for specific objectives.

Grade Mode: Normal Grading Mode**JMC 534 Advanced Video****3 Credit hours**

Development of the elements necessary for the production of detailed video projects. Students study the creation and production of public affairs, educational and creative video programming. (PR: JMC 332)

Grade Mode: Normal Grading Mode**JMC 536 International Mass Comm****3 Credit hours**

Development of various systems of mass communications and comparison with the United States.

Grade Mode: Normal Grading Mode**JMC 537 Public Relations Planning****3 Credit hours**

Public relations planning, writing and pitching of strategies and tactics to clients.

Grade Mode: Normal Grading Mode**JMC 538 Public Relations Case Studies****3 Credit hours**

Examination of the handling of public relations problems and opportunities by business, educational, governmental, and social organizations, with particular emphasis on public relations analysis and problem solving. (PR JRN 330)

Grade Mode: Normal Grading Mode**JMC 539 AD-PR Campaigns****3 Credit hours**

Students function as an AD-PR firm that researches, plans, implements, and evaluates advertising and public relations campaigns for clients.

Pre-req: JMC 537 and JMC 538.**Grade Mode:** Normal Grading Mode**JMC 550 Contemp Issues Radio-TV****3 Credit hours**

An examination of the current political, social, economic and legal issues affecting the decision making process in the newsrooms and programming centers of the electronic media. (PR: Jr. standing)

Grade Mode: Normal Grading Mode**JMC 551 Television Reporting I****3 Credit hours**

Students report, shoot, edit, write, produce, and anchor "MU Report," a student-produced newscast. The class makes use of university broadcast facilities and West Virginia Public Television as available.

Grade Mode: Normal Grading Mode**JMC 552 Advanced TV Reporting****3 Credit hours**

Students report, shoot, edit, write, produce, and anchor "MU Report," a student-produced newscast, on a more advanced level. The class makes use of university broadcast facilities and West Virginia Public Television as available.

Pre-req: JMC 551.**Grade Mode:** Normal Grading Mode**JMC 555 Race Gender & Mass Media****3 Credit hours**

A seminar that explores the participation of women and people of color in mass media; representations of gender and race are examined.

Grade Mode: Normal Grading Mode**JMC 562 Web Design for Mass Media****3 Credit hours**

Creative and practical aspects of typography, design and interactivity of online communications for the mass media.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**JMC 568 Environmental Mass Comm****3 Credit hours**

Identifying, analyzing and discussing issues that challenge environmental communications, strategizing the creation of comprehensible environmental messages and examining philosophies that underpin environmental communications.

Grade Mode: Normal Grading Mode**JMC 575 Documentary Journalism****3 Credit hours**

Students will produce an original 15-minute film, defend their filmmaking technique in an oral presentation, and perform an in-depth written and oral presentation on one filmmaker.

Grade Mode: Normal Grading Mode

JMC 580 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours	JMC 605 Master's Network 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 Project. Grade Mode: Normal Grading Mode	3 Credit hours
JMC 581 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours	JMC 609 Sem In Public Relations 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. Grade Mode: Normal Grading Mode	3 Credit hours
JMC 585 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours	JMC 612 Hist Mass Communications Analysis of mass media development in the United States and of current media problems, with emphasis on research. Grade Mode: Normal Grading Mode	3 Credit hours
JMC 586 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours	JMC 620 PR in Health Care This JMC course examines public relations practices and techniques used in health care. Grade Mode: Normal Grading Mode	3 Credit hours
JMC 587 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours	JMC 630 Seminar Media Criticism Intensive critical analysis of broadcasting programs and programming procedures from the sociocultural, literary, political and industry points of view. (PR: JMC 433 or JMC 533 or equivalent) Grade Mode: Normal Grading Mode	3 Credit hours
JMC 588 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours	JMC 640 Design Thinking This course engages students in the human-centered design thinking process for the innovative transformation of products and services. Grade Mode: Normal Grading Mode	3 Credit hours
JMC 590 Jrn & Mass Comm Internship I Supervised journalistic work with the professional media. Course is for students without substantial professional media experience. Arrangements must be made in advance the School of Journalism internship director. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1-3 Credit hours	JMC 641 Web Strategies for JMC 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. Grade Mode: Normal Grading Mode	3 Credit hours
JMC 591 Jrn & Mass Comm Intern II Supervised journalistic or mass communications work with professional media including newspapers, magazines, radio, television, advertising and public relations departments or agencies. Students must have completed a previous internship. (PR: Permission and JMC 590) Grade Mode: Normal Grading Mode	1-3 Credit hours	JMC 643 New Media Cultures This course investigates the political, economic, and cultural influences of new communications technologies, both in history and in today's world. Grade Mode: Normal Grading Mode	3 Credit hours
JMC 600 Proseminar in Mass Comm Introduction to the graduate studies for mass communicators. Emphasis on theories and methods used to investigate human/mediated communication in social science. Includes introductions to vocabulary, research, protocol and presentation. Grade Mode: Normal Grading Mode	3 Credit hours	JMC 650 Special Topics Grade Mode: Normal Grading Mode	1-3 Credit hours
JMC 601 Theory of Mass Comm Major theoretical concepts in mass communications are studied as a basis for understanding the communications process and the institutional impact of the mass media on the individual and on society. Required of all majors. Grade Mode: Normal Grading Mode	3 Credit hours	JMC 651 Special Topics Grade Mode: Normal Grading Mode	1-3 Credit hours
JMC 602 Mass Comm Research & Methods Research techniques applied to problems of mass communications including computer applications, with emphasis on mastery gained by participation in specialized research projects. Required of all majors. Pre-req: JMC 601 and EDF 517 or PSY 517. Grade Mode: Normal Grading Mode	3 Credit hours	JMC 678 Organization Storytelling 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. Grade Mode: Normal Grading Mode	3 Credit hours
JMC 603 Media Management An in-depth examination of the process and practice of media management. Grade Mode: Normal Grading Mode	3 Credit hours	JMC 681 Thesis Attributes: No Textbook Required Grade Mode: Credit/No Credit Grade Only	1-6 Credit hours
JMC 604 Law and Ethics The course examines the legal framework of American media from an ethical perspective. It also covers a basic framework of both the law and ethics. Grade Mode: Normal Grading Mode	3 Credit hours	JMC 682 Master's Initiative Creation of a non-traditional digital thesis in an applicable professional or scholarly subject through intensive research and creative technique. Grade Mode: Credit/No Credit Grade Only	6 Credit hours

JMC 685 Independent Study**1-4 Credit hours**

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

Music**MUS 502 Grad Music History Rev 2****2 Credit hours**

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.

Grade Mode: Normal Grading Mode

MUS 503 Choral Union**1 Credit hour**

Large choral ensemble available to university and regional singers without audition.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 504 University Chorus**1 Credit hour**

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.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 506 Opera Workshop**1 Credit hour**

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)

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 507 Chamber Choir**1 Credit hour**

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)

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 508 Orchestra**1 Credit hour**

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)

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 510 Intro to World Music**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

MUS 511 Orff-Schulwerk**3 Credit hours**

Experiences in Orff-Schulwerk include poetry, rhymes, games, songs and dances in teaching music. Singing, movement, and instrument playing and the spoken word are the primary learning tools.

Grade Mode: Normal Grading Mode

MUS 512 Adv Jazz Ped & Cond**3 Credit hours**

Advanced study of methods and materials for jazz curriculum. Ensemble organization, rehearsal and conducting techniques. Selection of literature and equipment. Organization and presentation of public performances.

Grade Mode: Normal Grading Mode

MUS 513 Adv Jazz Styles / Analysis**2 Credit hours**

Advanced study of structural forms used in jazz. Detailed analysis of extended forms. Techniques for solo transcriptions. Harmonic practices in specific styles. In-depth study of significant jazz composers, performers, genres.

Grade Mode: Normal Grading Mode

MUS 532 Electronic Music Composition**2 Credit hours**

The theory and practice of electronic media used for musical composition. History, Synthesis, and Digital Audio processing will be emphasized.

Grade Mode: Normal Grading Mode

MUS 537 Brass Band**1 Credit hour**

A community/university ensemble modeled after the British-style brass band.

Grade Mode: Normal Grading Mode

MUS 540 Graduate Theory Review**3 Credit hours**

Review of undergraduate music theory for entering graduate students who are deficient or wish to review music theory skills. Pre: Graduate standing or POI.

Grade Mode: Normal Grading Mode

MUS 545 Piano Ensemble**1 Credit hour**

Study and perform a wide variety of musical styles for multiple pianists on 1-5 pianos. (PR: Instructor Audition)

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 550 Guitar Literature**2 Credit hours**

A survey of the literature for guitar from c. 1400 to the twentieth century.

Grade Mode: Normal Grading Mode

MUS 551 Guitar Pedagogy**2 Credit hours**

A survey of guitar pedagogy literature, and a practicum in teaching classical guitar.

Grade Mode: Normal Grading Mode

MUS 552 Cello Ensemble**1 Credit hour**

Cello students will rehearse and perform works from the major literature for cello ensemble.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 553 Guitar Ensemble**1 Credit hour**

An ensemble for guitar majors and qualified guitar elective students; focus on sight reading skills, ensemble accuracy and position playing.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 554 Flute Ensemble**1 Credit hour**

Performs a wide variety of musical styles from full choir to quartets, trios, etc. (PR: Audition)

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 555 String Ensemble Chamber ensemble experience for string players. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1 Credit hour	MUS 570 Musical Prods Practicum Specialized practical training in aspects of performance production, preparation, and execution. May be repeated once. may be taken four times. Grade Mode: Normal Grading Mode	1 Credit hour
MUS 556 Woodwind Ensemble Chamber ensemble experience for woodwind players. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1 Credit hour	MUS 571 African Drum & Dance Ensemble Ensemble devoted to the performance fo traditional African drumming and dance. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1 Credit hour
MUS 557 Percussion Ensemble An ensemble dedicated to performing a wide variety of musical styles on instruments in the percussion family. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1 Credit hour	MUS 572 Fife and Drum Corps Performing/marching/uniformed ensemble devoted to the music of the American Revolution and Chief Justice John Marshall. Instruments featured include fifes and drums. (PR: Permission or Audition Required) Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1 Credit hour
MUS 558 Brass Ensemble Chamber ensemble experience for brass players. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1 Credit hour	MUS 574 Irish Ceili Band Ensemble devoted to the performance of Irish Ceili and dance music. Grade Mode: Normal Grading Mode	1 Credit hour
MUS 559 Jazz Ensemble 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) Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1 Credit hour	MUS 580 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours
MUS 560 Jazz Improv Ensemble Ensemble improvisation from duet to tentet. Emphasis on music sightreading, recognition and application of chord/scale relationships in a performance setting. Ensemble playing skills. May be repeated for credit. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1 Credit hour	MUS 581 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours
MUS 565 Symphonic Band 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. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1 Credit hour	MUS 582 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours
MUS 566 Marching Thunder The Marching Thunder rehearses three times a week and performs a varied selection of music every home game as well as exhibitions around the country. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1 Credit hour	MUS 583 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours
MUS 567 Wind Symphony A select, auditioned group of wind and percussion players who study and perform original and transcribed works for wind orchestra and works for small mixed chamber ensembles. (PR: Audition) Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1 Credit hour	MUS 584 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours
MUS 568 Sixth Man Band The Marshall University Sixth Man Band performs at all home men's and women's basketball games. The band provides music to enhance the overall game experience for players and fans. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1 Credit hour	MUS 585 Independent Study Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1-4 Credit hours
MUS 569 Contemporary Music Ensemble Performance of contemporary music in various media. Grade Mode: Normal Grading Mode	1 Credit hour	MUS 586 Independent Study Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1-4 Credit hours
		MUS 587 Independent Study Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1-4 Credit hours
		MUS 588 Independent Study Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1-4 Credit hours
		MUS 591 Workshop Grade Mode: Normal Grading Mode	1-4 Credit hours
		MUS 592 Workshop Grade Mode: Normal Grading Mode	1-4 Credit hours
		MUS 593 Workshop Grade Mode: Normal Grading Mode	1-4 Credit hours
		MUS 594 Workshop Grade Mode: Normal Grading Mode	1-4 Credit hours

- MUS 601 Orchestral Literature** 3 Credit hours
A survey of orchestra literature beginning with the 16th century; the Mannheim composers, Viennese classics, the Romantists, the national schools, and late European, South American and American developments.
Grade Mode: Normal Grading Mode
- MUS 602 Band/Wind Ens Lit** 3 Credit hours
A survey of major works originally written for wind band, major transcriptions, and works in all grade levels for school bands.
Grade Mode: Normal Grading Mode
- MUS 604A Keyboard Literature** 2 Credit hours
A survey of keyboard literature from the 14th to the 20th century. Emphasis is on stylistic developments and formal procedures.
Grade Mode: Normal Grading Mode
- MUS 604B Chamber Music Literature** 2 Credit hours
A survey of chamber music literature from the Baroque Era to the 20th century. Analysis of form emphasized in the study of string quartet trio, quintet, and various other combinations.
Grade Mode: Normal Grading Mode
- MUS 604C Song Literature** 2 Credit hours
The song literature of Western Europe and America, also including contemporary material from other countries; interpretation, song study, program building, languages, and interpretation of accompaniments. For singers and accompanists.
Grade Mode: Normal Grading Mode
- MUS 604D Choral Literature** 2 Credit hours
A comprehensive study of the forms and styles of Choral Composition from Renaissance to present day.
Grade Mode: Normal Grading Mode
- MUS 604F Percussion Lit** 2 Credit hours
A survey of instructional and performance literature for solo brass instruments and brass ensembles.
Grade Mode: Normal Grading Mode
- MUS 604G String Literature** 2 Credit hours
A survey of instructional and performance literature for solo brass instruments and brass ensembles.
Grade Mode: Normal Grading Mode
- MUS 604H Woodwind Literature** 2 Credit hours
A survey of instructional and performance literature for flute, oboe, clarinet, bassoon and/or saxophone in both solo and ensemble settings.
Grade Mode: Normal Grading Mode
- MUS 604I Brass Literature** 2 Credit hours
A survey of instructional and performance literature for solo brass instruments and brass ensembles.
Grade Mode: Normal Grading Mode
- MUS 610 Hist and Phil of Music Ed** 3 Credit hours
Basic concepts of music education and their application to problems of music teaching, supervision and administration.
Grade Mode: Normal Grading Mode
- MUS 611 Music Psy and Lrng Theory** 3 Credit hours
Vibrational stimuli, resultant reactions, and factors involved in development of musical skills, as well as measures of aptitude and achievement.
Grade Mode: Normal Grading Mode
- MUS 612 Projects & Problems Music** 1-3 Credit hours
Detailed investigation of problems and/or projects in the student's area of specialization. Special problems and projects chosen by the student for investigation. Extensive study of a single problem or project in detail.
Grade Mode: Normal Grading Mode
- MUS 614 Sem in Teach Mus Appreciation** 1 Credit hour
Methods and materials for teaching music appreciation. Required of all graduate assistants teaching MUS 142 Music Appreciation. May be repeated for credit. Advanced methods and materials for teaching appreciation of music in grades 1-12.
Grade Mode: Normal Grading Mode
- MUS 615 Adv Tech for Marching Band** 3 Credit hours
The marching band. The marching and musical problems which are encountered in training and operating a band for foot-ball games and other events involving marching and playing.
Grade Mode: Normal Grading Mode
- MUS 616 Mus Curr and Admin** 3 Credit hours
Survey of recent developments in public school curricula and their effect on music offerings. Preparation of course and curricular content.
Grade Mode: Normal Grading Mode
- MUS 617 Seminar Music Education** 3 Credit hours
Specialized study of advanced concepts and current problems in music education. An advanced study of basic concepts of current problems in music education.
Grade Mode: Normal Grading Mode
- MUS 619A Seminar in Vocal Pedagogy** 2 Credit hours
A study of the techniques of singing and their application to private and class voice instruction. Emphasis placed upon diagnosis of problems, and teaching under supervision.
Grade Mode: Normal Grading Mode
- MUS 620A Instrumental Tech and Material** 3 Credit hours
Problems of the instrumental teacher at all levels; practical work in the techniques of handling beginning classes and ensembles of all types.
Grade Mode: Normal Grading Mode
- MUS 620B Choral Tech and Materials** 3 Credit hours
A practicum approach to problems of choral techniques and materials with special emphasis placed upon high school and junior high school levels.
Grade Mode: Normal Grading Mode
- MUS 621 Music Research Methods** 3 Credit hours
Introduction to music research with emphasis on investigative methods and applications, procedures, and bibliography. Concentration on expository writing style and format.
Grade Mode: Normal Grading Mode
- MUS 622 Styles and Analysis** 3 Credit hours
Identification of structural principles and compositional idioms characteristic of historical eras and representative composers from the Ars Antiqua to the present day.
Pre-req: MUS 540.
Grade Mode: Normal Grading Mode
- MUS 629 Choral Conduct and Interp** 3 Credit hours
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.
Grade Mode: Normal Grading Mode

MUS 630 Instru Conduct & Interp	3 Credit hours	MUS 653 Music in Classical Era	3 Credit hours
Advanced study in literature, conducting techniques, score preparation and analysis, interpretation, rehearsal planning and execution for the instrumental ensemble. May be repeated for credit three times.		The historical and stylistic study of music of the Classical Era, ca 1720 to ca. 1820. Pre-Classic styles and the formation of a classical style in music in symphony, concerto, opera, the sonata, and choral music through Beethoven.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MUS 631 Adv Jazz Improv	2 Credit hours	MUS 654 Music in the Romantic Era	3 Credit hours
Advanced skills, techniques, and performance practices for jazz improvisation. Continued study of bebop, post-bebop, extended forms, contemporary, and non-Western styles and improvisation techniques. Transcription and performance of representative literature.		The historical and stylistic study of music of the Classical Era, ca 1800 to ca. 1900 A study and evaluation of Beethoven's principal works and the life and works of Schubert, Mendelssohn, Chopin, Schumann, Brahms, and their contemporaries.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MUS 640A Music Theory	3 Credit hours	MUS 655 Music ca 1900 to the Present	3 Credit hours
Analytical and writing techniques of 19th and 20th music.		Musical developments since Wagner: Debussy, Stravinsky, Mahler, Strauss, Schoenberg, Bartok and their contemporaries . Developments in electronic and aleotonic music, and new notations.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MUS 641 Advanced Counterpoint	3 Credit hours	MUS 656 Sem Performance Practice	2 Credit hours
An intensive study of contrapuntal techniques, styles, and forms through composition and analysis.		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. Students will prepare and perform music from a selected style period, making their own editions with correct realization and ornamentation. May be repeated for credit.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MUS 645 Original Composition	2 Credit hours	MUS 657 Jazz History	3 Credit hours
Attributes: No Textbook Required		Comprehensive study of the development of jazz and related forms from its inception to recent trends. Relationships between aesthetic, technological, and social changes and their effects. Study of historic recordings.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MUS 646 Advanced Choral Arranging	3 Credit hours	MUS 670 Cur Trends in Mus Ed PreK-5	3 Credit hours
Techniques of choral composition and arranging with emphasis on the mixed choir. Arrangements and original works sung by choral groups and conducted by students.		A comprehensive survey of available materials in singing, reading, listening, rhythm, and creating program of school music for the elementary grades; use of such materials in the methodology of teaching.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MUS 647 Advanced Band Arranging	3 Credit hours	MUS 675 Music in Erly Child (Birth-5)	3 Credit hours
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.		Ways of using creative activity in the music program, methods of presenting creative song writing, rhythms, instrument construction, instrumental expressing, dramatiza- tion, program building.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MUS 648 Advanced Orchestration	3 Credit hours	MUS 679 Problem Report	1-3 Credit hours
Scoring compositions from other media for modern orchestras of various sizes.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MUS 680 Saxophone	1-2 Credit hours
MUS 649 Advanced Jazz Arranging & Comp	3 Credit hours	Attributes: No Textbook Required	
Comprehensive techniques and analysis of jazz masterworks applied to composing and arranging in various instrumental and vocal jazz styles. Techniques of orchestration and composition for both large and small ensembles.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MUS 681 Thesis	1-6 Credit hours
MUS 650 Music of the Middle Ages	3 Credit hours	Attributes: No Textbook Required	
Ancient Greek musical theory, Gregorian chant and its outgrowths, secular monophony, sacred and secular polyphony and its development through the fourteenth century.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MUS 682 Flute	1-2 Credit hours
MUS 651 Music of the Renaissance	3 Credit hours	Attributes: No Textbook Required	
The historical and sylistic study of music of the Renaissance, ca 1400 to ca 1600. The English, Burgundian and Netherland schools; secular forms; chanson, madrigal, and lied; instrumental music; mannerism and the end of an age.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MUS 683 Oboe	1-2 Credit hours
MUS 652 Music of the Baroque Era	3 Credit hours	Attributes: No Textbook Required	
The historical and stylistic study of music of the Baroque Era, ca 1600 to ca 1750. The monodic revolution: madrigal to cantata, opera, oratorio; Italian leaders; Vivaldi, Bach, and Handel.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode			

MUS 684 Clarinet

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 685 Bassoon

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 686 French Horn

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 687 Trumpet

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 688 Trombone

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 689 Euphonium

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 690 Tuba

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 691 Violin

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 692 Viola

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 693 Cello

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 694 String Bass

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 695 Piano

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 696 Voice

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 697 Organ

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 698 Percussion

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

MUS 699 Guitar

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

1-2 Credit hours**1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours**

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 Requirements

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,
- 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.

Plan of Study

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

Code	Title	Credit Hours
Required Courses		
JMC 562	Web Design for Mass Media	3
JMC 641	Web Strategies for JMC	3
Select nine hours of the following:		9
JMC 500	Digital Imaging II	
JMC 501	Multi-Media Writing	
JMC 532	AD-PR Video Production	
JMC 575	Documentary Journalism	
Total Credit Hours		15

Integrated Strategic Communications, Graduate Certificate

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,

Digital Communications, Graduate Certificate

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,

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 Requirements

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,
- 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.

Plan of Study

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

Code	Title	Credit Hours
Required Courses		
JMC 508	Research and Analytics	3
JMC 515	Content Strategy	3
or JMC 538	Public Relations Case Studies	
Select nine hours of the following:		9
JMC 515	Content Strategy (if not taken as part of required six hours)	
JMC 532	AD-PR Video Production	
JMC 537	Public Relations Planning	
JMC 538	Public Relations Case Studies (if not taken as part of required six hours)	
JMC 539	AD-PR Campaigns	
JMC 609	Sem In Public Relations	
JMC 641	Web Strategies for JMC	
Total Credit Hours		15

Journalism, 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, multimedia journalist, online journalism, print journalism, public relations, radio-television, strategic communications, sports journalism, and video production.

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/ (<https://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
1.0 = 28
1.5 = 43
2.0 = 57
2.5 = 71
3.0 = 85
3.5 = 99
4.0 = 113
4.5 = 128
5.0 = 142
5.5 = 156
6.0 = 170

3. International student applicants must demonstrate English proficiency according to university standards. See the Admissions section for information.

Program Requirements

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 Hist Mass Communications, 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.

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.

Plan of Study

Code	Title	Credit Hours
A Graduate Statistics course is not required if student completed an acceptable statistics course before enrolling in the master's program.		
EDF 676	Statistical Methods	
PSY 517	Inter Behavioral Stat (or another acceptable statistics course)	
JMC 600	Proseminar in Mass Comm	3
JMC 601	Theory of Mass Comm	3
JMC 602	Mass Comm Research & Methods	3
JMC 604	Law and Ethics	3
JMC 612	Hist Mass Communications	3
Electives (or Electives and Thesis)		15
Total Credit Hours		30

Area of Emphasis in Health Care Public Relations

Code	Title	Credit Hours
Curriculum Core		
JMC 600	Proseminar in Mass Comm	3
JMC 601	Theory of Mass Comm	3
JMC 602	Mass Comm Research & Methods	3
JMC 604	Law and Ethics	3
JMC 612	Hist Mass Communications	3
Other Required Courses		
JMC 620	PR in Health Care	3
JMC 539	AD-PR Campaigns	3
JMC 501	Multi-Media Writing (required if no JMC background)	3
Select one of the following: ¹		3
CLS 105 	Medical-Lab Terminology (CT)	
Other medical terminology course approved by the graduate coordinator		
EDF 676	Statistical Methods	3
or PSY 517	Inter Behavioral Stat	
Select from the following to total a minimum of 30:		
JMC 537	Public Relations Planning	
JMC 641	Web Strategies for JMC	
HCA 600	The Health Care System	
HCA 640	The Health Care Professional	
HCA 655	Health Care Marketing	

JMC 508	Research and Analytics	
Total Credit Hours		30

¹ Required if no background in health care

Area of Emphasis in New Media Studies

Code	Title	Credit Hours
Curriculum Core		
JMC 604	Law and Ethics	3
JMC 640	Design Thinking	3
JMC 605	Master's Network	3
JMC 682	Master's Initiative	6
Advisor Approved Course		3
Required JMC Electives		
Select six hours from the following:		6
JMC 500	Digital Imaging II	
JMC 562	Web Design for Mass Media	
JMC 612	Hist Mass Communications	
JMC 641	Web Strategies for JMC	
JMC 678	Organization Storytelling	
JMC 643	New Media Cultures	
Required Branch Electives		
Select six hours with advisor's approval from available Marshall Graduate courses outside of the School of Journalism and Mass Communications program		6
Total Credit Hours		30

Media Management, Graduate Certificate

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 Requirements

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,
- 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.

Plan of Study

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

Code	Title	Credit Hours
Required Courses		
JMC 603	Media Management	3
JMC 604	Law and Ethics	3
Select nine hours of the following:		9
JMC 510	Magazine Editorial Prac	
JMC 536	International Mass Comm	
JMC 550	Contemp Issues Radio-TV	
JMC 555	Race Gender & Mass Media	
JMC 612	Hist Mass Communications	
JMC 641	Web Strategies for JMC	
Total Credit Hours		15

Music, M.A.

Program Description

The mission of the Marshall University School of Music is to equip students for pursuing careers in their chosen field of musical study and for making a positive impact in their communities and the profession, to provide opportunities for enriching musical experiences for all Marshall University students, and to serve as an important cultural resource for the region.

In the pursuit of our mission, we are committed to the following goals:

- to foster a student-centered environment that inspires musical, academic, and personal growth and excellence
- to educate students to think critically, work creatively, communicate effectively, and become technologically literate
- to champion the creation, performance, teaching, research, and study of music through the professional work of our music faculty
- to provide leadership within the University and the region in all matters pertaining to music
- to function as a vital and visible contributor to the cultural life of the University and community by providing performances, festivals, and other presentations, as well as by engaging in arts partnerships and other collaborations

The School of Music 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 (<https://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>).

In addition, applicants must:

- Have a bachelor's degree from an accepted, regionally accredited institution with a major in music or the equivalent.
- Submit an application to the School of Music, available at www.marshall.edu/music (<https://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 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 Handbook.

Program Requirements 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 History/Literature

Thesis and Non-Thesis Options

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 Elementary German I, GER 102 Elementary German II, GER 203 Intermediate German I and GER 204 Intermediate German II, 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>.

Plan of Study

Master of Arts with Emphasis in Jazz Studies

(32 credits)

Code	Title	Credit Hours
Required Courses		
MUS 512	Adv Jazz Ped & Cond	3
MUS 513	Adv Jazz Styles / Analysis	2
Four Credits of MUS 559 Jazz Ensemble		4
Four Credits of MUS 560 Jazz Improv Ensemble		4
MUS 621	Music Research Methods	3
MUS 681	Thesis	3
Applied Music		8
Electives		
Select five credits from the following:		5
MUS 649	Advanced Jazz Arranging & Comp	
MUS 631	Adv Jazz Improv	
MUS 657	Jazz History	
Other Graduate Music Courses		
Total Credit Hours		32

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

Master of Arts with Emphasis in Music Education – Thesis Option

(32 credits)

Code	Title	Credit Hours
Required Courses		
MUS 622	Styles and Analysis	3
MUS 610	Hist and Phil of Music Ed	3
MUS 611	Music Psy and Lrng Theory	3
MUS 616	Mus Curr and Admin	3
MUS 621	Music Research Methods	3

MUS 681	Thesis	3
Specialization		
Select 8-10 credits from the following:		8-10
MUS 511	Orff-Schulwerk	
MUS 615	Adv Tech for Marching Band	
MUS 620A	Instrumental Tech and Material	
MUS 630	Instru Conduct & Interp	
MUS 604D	Choral Literature	
MUS 619A	Seminar in Vocal Pedagogy	
MUS 620B	Choral Tech and Materials	
MUS 629	Choral Conduct and Interp	
MUS 670	Cur Trends in Mus Ed PreK-5	
MUS 675	Music in Erly Child (Birth-5)	
Electives		
Select 2-6 credits from the following:		2-6
Graduate Music Courses		
1-4 credits in Applied Music		
1-2 credits in Ensembles		
Graduate Education Courses		
Total Credit Hours		28-34

Master of Arts with Emphasis in Music Education – Non-Thesis Option

(36 credits)

Code	Title	Credit Hours
Required Courses		
MUS 622	Styles and Analysis	3
MUS 610	Hist and Phil of Music Ed	3
MUS 611	Music Psy and Lrng Theory	3
MUS 616	Mus Curr and Admin	3
MUS 621	Music Research Methods	3
Specialization		
Select 12-20 credits from the following:		12-20
MUS 511	Orff-Schulwerk	
MUS 615	Adv Tech for Marching Band	
MUS 620A	Instrumental Tech and Material	
MUS 604D	Choral Literature	
MUS 619A	Seminar in Vocal Pedagogy	
MUS 620B	Choral Tech and Materials	
MUS 670	Cur Trends in Mus Ed PreK-5	
MUS 675	Music in Erly Child (Birth-5)	
Electives		
Select 1-9 credits from the following:		1-9
Graduate Music Courses		
1-4 credits in Applied Music		
1-2 credits in Ensembles		
Graduate Education Courses		
Total Credit Hours		28-44

Master of Arts with Emphasis in Music History/Literature – Thesis Option

(32 credits)

Code	Title	Credit Hours
Required Courses		
MUS 622	Styles and Analysis	3
MUS 612	Projects & Problems Music	2
MUS 621	Music Research Methods	3
MUS 640A	Music Theory	3
Music History Period Courses		
Select 12 credits from the following:		12
MUS 510	Intro to World Music	
MUS 650	Music of the Middle Ages	
MUS 651	Music of the Renaissance	
MUS 652	Music of the Baroque Era	
MUS 653	Music in Classical Era	
MUS 654	Music in the Romantic Era	
MUS 655	Music ca 1900 to the Present	
MUS 681	Thesis	3
Electives		
Select 6 credits from the following:		6
Graduate Music Course		
1-4 credits in Applied Music		
1-2 credits in Ensembles		
Total Credit Hours		32

Master of Arts with Emphasis in Music History/Literature – Non-Thesis Option

(36 credits)

Code	Title	Credit Hours
Required Courses		
MUS 622	Styles and Analysis	3
MUS 612	Projects & Problems Music	2
MUS 621	Music Research Methods	3
MUS 640A	Music Theory	3
Music History Period Courses		
Select 12 credits from the following:		12
MUS 510	Intro to World Music	
MUS 650	Music of the Middle Ages	
MUS 651	Music of the Renaissance	
MUS 652	Music of the Baroque Era	
MUS 653	Music in Classical Era	
MUS 654	Music in the Romantic Era	
MUS 655	Music ca 1900 to the Present	
Music Electives		
Select 7 credits from the following:		7
Graduate Music Courses		
1-4 credits in Applied Music		
1-2 credits in Ensembles		

Non-Music Electives

Select 6 credits in consultation with advisor from the following areas: Art, Classics, English, Humanities, Languages, Philosophy, Religious Studies, Sociology, Theatre

Total Credit Hours 36

Master of Arts with Emphasis in Music Performance

(32 credits)

Code	Title	Credit Hours
Required Courses		
MUS 622	Styles and Analysis	3
MUS 621	Music Research Methods	3
MUS 640A	Music Theory	3
	Applied Music	8
	Literature courses in Principal Applied Area	2
	Graduate History Course	3
MUS 681	Thesis (Recital) ¹	3
Track Electives		
	Select 7 credits from one of the following tracks:	7
<i>Instrumental Track Electives</i>		
	Graduate Music Courses	
<i>Vocal Track Electives</i> ²		
MUS 619A	Seminar in Vocal Pedagogy	
	Two Graduate Ensemble Credits	
	Graduate Music Courses	
Total Credit Hours		32

¹ Students must follow departmental policies in preparing and presenting the graduate performance recital.

² 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.

Master of Arts with an Emphasis in Music Composition

(32 credits)

Code	Title	Credit Hours
Required Courses		
MUS 532	Electronic Music Composition	2
MUS 622	Styles and Analysis	3
MUS 621	Music Research Methods	3
MUS 640A	Music Theory	3
MUS 641	Advanced Counterpoint	3
MUS 655	Music ca 1900 to the Present	3
MUS 645	Original Composition (Take four times)	2
MUS 645	Original Composition	2
MUS 645	Original Composition	2
MUS 645	Original Composition	2
MUS 681	Thesis (Recital) ¹	3
Electives		

Select 4 credits from the following:	4
MUS 646	Advanced Choral Arranging
MUS 647	Advanced Band Arranging
MUS 648	Advanced Orchestration
MUS 649	Advanced Jazz Arranging & Comp
Additional courses from applied, history, theory, technology	
1-4 credits in Applied Music	
1-2 credits in Ensembles	
Total Credit Hours	32

¹ Students must follow departmental policies in preparing and presenting the graduate performance recital.

Lewis College of Business

Contacts: Dr. Avinandan Mukherjee, Dean

Website: <https://www.marshall.edu/cob> (<https://www.marshall.edu/cob/>)

lcob@marshall.edu

Brad D. Smith Schools of Business Programs

Brad D. Smith School of Business

- Accessibility Awareness, Graduate Certificate (p. 160)
- Accountancy, M.S. (p. 86)
- Business Administration, D.B.A. (p. 87)
- Business Administration, M.B.A. (p. 89)
- Health Care Administration, M.S. (p. 91)
- Health Informatics, M.S. (p. 92)
- Human Resource Management, M.S. (p. 93)
- Nurse Anesthesia Practice and Management, D.N.A.P. (p. 94)
- Nursing Informatics, Graduate Certificate (p. 95)
- Online Data Analytics in Health Care, Graduate Certificate (p. 96)

Courses

Accounting

ACC 510 Survey of Accounting **3 Credit hours**

A survey of financial and managerial accounting principles and procedures that supports external financial reporting and management decision making for business entities.

Grade Mode: Normal Grading Mode

ACC 512 Govt NFP Accounting **3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ACC 544 Consulting for CPAs **3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ACC 580 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours	ACC 632 Auditing AIS 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. Grade Mode: Normal Grading Mode	3 Credit hours
ACC 581 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours	ACC 640 Forensic ACC Civil Litigation 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. Pre-req: ACC 613. Grade Mode: Normal Grading Mode	3 Credit hours
ACC 582 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours	ACC 648 Tax Research 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. Grade Mode: Normal Grading Mode	3 Credit hours
ACC 612 Account Function Business The meaning, uses, and limitations of the historical and projected quantitative data produced by the accounting process. Emphasis is given to the utilization of accounting information: (1) by 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. Pre-req: ACC 510 or ACCT 501G. Grade Mode: Normal Grading Mode	3 Credit hours	ACC 650 Special Topics Pre-req: ACC 510 or ACCT 501G. Grade Mode: Normal Grading Mode	1-3 Credit hours
ACC 613 Profit Planning & Control Determination, analysis, and reporting of data for planning and controlling operations. Includes flexible budgets, standard costs, and systems of determining historical costs. Pre-req: ACC 510. Grade Mode: Normal Grading Mode	3 Credit hours	ACC 651 Special Topics Grade Mode: Normal Grading Mode	1-3 Credit hours
ACC 614 Theory of Accounting History and development of accounting principles; intensive study of theoretical problems related to determination of income and presentation of financial conditions. Pre-req: ACC 510 or ACC 501G. Grade Mode: Normal Grading Mode	3 Credit hours	ACC 660 Independent Study 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. admissions or permission of GSM academic advisor) Pre-req: ACC 510. Grade Mode: Normal Grading Mode	1-4 Credit hours
ACC 615 Audit Theory & Practice Legal and social responsibilities of the auditor. Verification of financial statements by independent public accountants and internal auditors. Pre-req: ACC 510 or ACCT 501G. Grade Mode: Normal Grading Mode	3 Credit hours	ACC 681 Thesis (Permission of the division head and full M.B.A. admission) Pre-req: ACC 510 or ACCT 501G. Grade Mode: Normal Grading Mode	1-6 Credit hours
ACC 616 Adv Income Tax Procedure A study of selected topics in the Internal Revenue code and Regulations with emphasis on tax accounting and research. Pre-req: ACC 510 or ACCT 501G. Grade Mode: Normal Grading Mode	3 Credit hours	ACC 698 Ethics in Accounting This course examines ethical issues facing professional accountants. Professional codes of conduct and corporate governance mechanisms will be applied to manage ethical situations. Grade Mode: Normal Grading Mode	3 Credit hours
ACC 617 Advanced Controllershship Functions of the modern corporate controller. Topics and problems demonstrating the integrative nature of the controller's role are investigative. The use of the computer is integrated into the course. Pre-req: ACC 613. Grade Mode: Normal Grading Mode	3 Credit hours	ACC 699 Bus Policy & Strategy Study of administrative decision making under conditions of uncertainty. Policy construction are top administrative level with emphasis on strategy with consideration of major functions of the business organization. Pre-req: ACC 510 or ACCT 501G. Grade Mode: Normal Grading Mode	3 Credit hours
ACC 618 Accounting Research Examination and evaluation of current theories, issues, and problems relating to accounting. Primary emphasis on accounting theory and research. Pre-req: ACC 510. Grade Mode: Normal Grading Mode	3 Credit hours	Economics ECN 501 Economic Analysis A survey of essential economics principles and techniques, including both microeconomic and macroeconomics topics. For students who have not had a two semester principles of economics sequence as undergraduates. Grade Mode: Normal Grading Mode	3 Credit hours
ACC 620 Analytic Modeling Acct Students will learn how to build accounting analytic models and analyze accounting data to increase profitability, reduce costs, and improve operational costs. Grade Mode: Normal Grading Mode	3 Credit hours	ECN 515 Regional Economics A study of location theory and regional development within a framework of economic theory. Grade Mode: Normal Grading Mode	3 Credit hours

ECN 561 Economic Educ Workshop 3 Credit hours

Intensive review of subject matter and teaching methods in economics for elementary and high school teachers.

Grade Mode: Normal Grading Mode

ECN 580 Special Topics 1-4 Credit hours

Members of the department may teach, when necessary, any economics subject not listed among the current course offerings.

Grade Mode: Normal Grading Mode

ECN 630 Managerial Economics 3 Credit hours

Utilization of microeconomic theory and optimization techniques for management decision making.

Pre-req: (MGT 601 or MGT 500) and ECN 501.

Grade Mode: Normal Grading Mode

ECN 650 Special Topics 1-3 Credit hours

Members of the department may teach, when necessary, any economics subject not listed among current course offerings.

Grade Mode: Normal Grading Mode

ECN 651 Special Topics 1-3 Credit hours

Members of the department may teach, when necessary, any economics subject not listed among current course offerings.

Grade Mode: Normal Grading Mode

ECN 660 Independent Study 1-4 Credit hours

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)

Grade Mode: Normal Grading Mode

ECN 681 Thesis 3-6 Credit hours

(PR: Permission of division head and full M.B.A. admissions)

Grade Mode: Normal Grading Mode

ECN 699 Bus Policy & Strategy 3 Credit hours

Study of administrative decisions making under conditions of uncertainty. Policy construction at top administrative level with emphasis on strategy with consideration of major functions of the business organization.

Grade Mode: Normal Grading Mode

Entrepreneurship**ENT 680 Entrepreneurship 3 Credit hours**

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.

Grade Mode: Normal Grading Mode

Finance**FIN 510 Prin Business Finance 3 Credit hours**

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: Permission of MBA director).

Pre-req: ACC 510 and ECN 501 and MGT 500.

Grade Mode: Normal Grading Mode

FIN 532 Fin Advising FINRA S-7 3 Credit hours

This course prepares students for the Series 7 exam that entitles the holder to sell all types of securities products with the exception of commodities and futures.

Grade Mode: Normal Grading Mode

FIN 556 Income Tax Planning 3 Credit hours

This course focuses on principles and current law of income taxation and its impact on financial planning for individuals, couples and families as investors, employees and business owners.

Pre-req: FIN 551.

Grade Mode: Normal Grading Mode

FIN 558 Estate Planning 3 Credit hours

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.

Pre-req: FIN 551.

Grade Mode: Normal Grading Mode

FIN 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

FIN 581 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

FIN 620 Financial Management 3 Credit hours

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.

Pre-req: MGT 601.

Grade Mode: Normal Grading Mode

FIN 623 Investments 3 Credit hours

A study of fundamental investment principles, modern portfolio theory, and portfolio formation process and the evaluation of portfolio performance.

Pre-req: FIN 501G or FIN 501.

Grade Mode: Normal Grading Mode

FIN 625 Financial Prob Business 3 Credit hours

Recognizing and solving financial problems through the use of case presentations and/or corporate annual and interim reports.

Pre-req: FIN 620.

Grade Mode: Normal Grading Mode

FIN 626 Sec Anlysis-Portfolio Mgt 3 Credit hours

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.

Pre-req: FIN 620.

Grade Mode: Normal Grading Mode

FIN 627 Fin Institution & Markets 3 Credit hours

An in-depth study of the flow of funds in the 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.

Pre-req: FIN 620.

Grade Mode: Normal Grading Mode

FIN 630 Multinational FIN MGT 3 Credit hours

This course analyzes the challenges of multinational corporations' financial management. It covers three areas: foreign exchange market transactions, exchange rate risk and hedging, and corporate financial decisions of an MNC.

Grade Mode: Normal Grading Mode

FIN 650 Special Topics**1-3 Credit hours**

(Permission of the division head, full M.B.A. admission, and permission of GSM academic advisor)

Pre-req: FIN 501G or FIN 510.

Grade Mode: Normal Grading Mode

FIN 651 Special Topics**1-3 Credit hours**

Pre-req: FIN 620.

Grade Mode: Normal Grading Mode

FIN 660 Independent Study**1-4 Credit hours**

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)

Pre-req: FIN 620.

Grade Mode: Normal Grading Mode

FIN 681 Thesis**1-6 Credit hours**

(PR: Permission of the division head and full M.B.A. admission)

Grade Mode: Normal Grading Mode

FIN 699 Business Policy & Strategy**3 Credit hours**

Study of administrative decisions making under conditions of uncertainty. Policy construction at top administrative level with emphasis on strategy with consideration of major functions of the business organization.

Grade Mode: Normal Grading Mode

Health Care Administration**HCA 600 The Health Care System****3 Credit hours**

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)

Grade Mode: Normal Grading Mode

HCA 610 Health Care Financial Mgt**3 Credit hours**

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)

Pre-req: HCA 600.

Grade Mode: Normal Grading Mode

HCA 611 QUANT METHODS IN HEALTH CARE M**1 Credit hour****HCA 615 Health Care Econ****3 Credit hours**

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.

Pre-req: HCA 600.

Grade Mode: Normal Grading Mode

HCA 620 Ethical Dimensions/Hlth Care**3 Credit hours**

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 all allocation of scarce resources, the type and availability of care for special populations, and conflicts of interest. (PR: HCA 600)

Pre-req: HCA 600 or HCA 600G.

Grade Mode: Normal Grading Mode

HCA 622 Utilization of HSR**3 Credit hours**

Provides an introduction to methods of undertaking research and program evaluation within health services organizations and delivery systems.

Pre-req: HCA 600 and MKT 511.

Grade Mode: Normal Grading Mode

HCA 630 Legal Issues/Health Care Mgt**3 Credit hours**

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)

Pre-req: HCA 600 or HCA 600G.

Grade Mode: Normal Grading Mode

HCA 640 The Health Care Professional**3 Credit hours**

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 accountabilities 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)

Grade Mode: Normal Grading Mode

HCA 641 Clinical Experiences at CAMC**3-9 Credit hours**

Grade Mode: Credit/No Credit Grade Only

HCA 650 Comparative Health Systems**3 Credit hours**

A survey of health care provision systems throughout the world. Survey of health care provision systems throughout the world.

Grade Mode: Normal Grading Mode

HCA 651 Health Care Operations**3 Credit hours**

Investigation of the use of operations management techniques and methodologies that are useful in the health care industry.

Grade Mode: Normal Grading Mode

HCA 652 Health Care Finance**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

HCA 653 Integrated Health Care Del Sys 3 Credit hours

Provides an in-depth knowledge of health care delivery systems with emphasis on the major managerial issues faced by integrated delivery systems.

Grade Mode: Normal Grading Mode

HCA 654 Human Res Manage in Hlth Care 3 Credit hours

Investigation of the human resource function found within contemporary health care provision systems. Discussion of future challenges facing the function in this turbulent environment.

Grade Mode: Normal Grading Mode

HCA 655 Health Care Marketing 3 Credit hours

An investigation of the role of marketing in today's health care organizations. Specific topics include market segmentation, consumer behavior, promotion, and environmental analysis.

Grade Mode: Normal Grading Mode

HCA 656 Mgt of Medical Technology 3 Credit hours

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.

Grade Mode: Normal Grading Mode

HCA 657 Health Care Law and Policy 3 Credit hours

An examination of the legal, regulatory, and policy-making interactions between government, society, and health care organizations and providers.

Grade Mode: Normal Grading Mode

HCA 658 Long Term Care 3 Credit hours

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.

Grade Mode: Normal Grading Mode

HCA 659 Rural Health Care 3 Credit hours

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.

Grade Mode: Normal Grading Mode

HCA 671 Health Care Practicum 1-6 Credit hours

Project-oriented experience in health care operations and organizations. Intended for those students with insufficient experience in the field.

Grade Mode: Normal Grading Mode

HCA 695 Fld Res/Health Care Mgt 3 Credit hours

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: Completion of all 600-level required HCA courses, plus permission of program director)

Grade Mode: Normal Grading Mode

HCA 697 Topics Health Care Admin 3 Credit hours

The course is designed to allow group study of selected topics of current interest in health care management. (PR: Consent of instructor)

Grade Mode: Normal Grading Mode

HCA 698 Independent Study-Health Care Admin 1-3 Credit hours

Pre-req: HCA 600 or HCA 600G.

Grade Mode: Normal Grading Mode

HCA 699 Seminar in Health Care Admin 3 Credit hours

Grade Mode: Normal Grading Mode

HCA 750 Field Research/Health Care Mgt 3 Credit hours

Pre-req: (HCA 610 or HCA 610G) and (HCA 620 or HCA 620G) and (HCA 630 or HCA 630G).

Grade Mode: Normal Grading Mode

HCA 797 Thesis 6 Credit hours

Grade Mode: Normal Grading Mode

Health Informatics**HIN 605 The Role of EHR and PHR 3 Credit hours**

Students will be introduced to the main concepts and software applications of Electronic Health Records and Personal Health Records.

Grade Mode: Normal Grading Mode

HIN 610 Analytics for Health Care 3 Credit hours

Data analytic tools useful in healthcare data analysis and healthcare administrative decision-making including health data analysis, visualization, and reporting techniques.

Grade Mode: Normal Grading Mode

HIN 615 Health Quality and Safety 3 Credit hours

Provide an experience that will prepare students to work effectively in professional positions, and to bridge the learning gained in course work with the world of practice.

Grade Mode: Normal Grading Mode

HIN 620 Legal Health & Informatics 3 Credit hours

The course will introduce students to IT governance, health information ethics and legal requirements to improve health care processes, customer response and business competitiveness.

Grade Mode: Normal Grading Mode

HIN 630 Research Methods and Data 3 Credit hours

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 process.

Grade Mode: Normal Grading Mode

HIN 650 Health Informatics Practicum 3 Credit hours

Provide an experience to prepare students to work effectively in professional positions, and bridge the learning gained in course work with the world of practice.

Pre-req: HIN 605 with a minimum grade of D and HCA 656 with a minimum grade of D.

Grade Mode: Normal Grading Mode

HIN 685 Independent Study 1-4 Credit hours

Independent Study relates to projects that do not fall specifically within an individual department's curriculum.

Grade Mode: Normal Grading Mode

HIN 686 Independent Study 1-4 Credit hours

Independent Study relates to projects that do not fall specifically within an individual department's curriculum.

Grade Mode: Normal Grading Mode

HIN 687 Independent Study 1-4 Credit hours

Independent Study relates to projects that do not fall specifically within an individual department's curriculum.

Grade Mode: Normal Grading Mode

HIN 688 Independent Study**1-4 Credit hours**

Independent Study relates to projects that do not fall specifically within an individual department's curriculum.

Grade Mode: Normal Grading Mode

Human Resources Management

HRM 600 Development of Labor Relations**3 Credit hours**

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)

Grade Mode: Normal Grading Mode

HRM 605 Human Resource Economics**3 Credit hours**

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 253 or ECN 501 plus GSM admission)

Grade Mode: Normal Grading Mode

HRM 610 Collective Bargaining**3 Credit hours**

A comprehensive survey of collective bargaining with special emphasis given to philosophy, structure and the process of negotiations. attention is also given to important developments and emerging trends in collective bargaining. (PR: HRM 600)

Grade Mode: Normal Grading Mode

HRM 615 Arbitration/Grievance Procedur**3 Credit hours**

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)

Grade Mode: Normal Grading Mode

HRM 625 HRIS and Knowledge Mgmt**3 Credit hours**

The development, use, and impact of Human Resource Information Systems and the management of organizational knowledge including knowledge management systems, procedures, policies, and other issues.

Grade Mode: Normal Grading Mode

HRM 630 Labor Law**3 Credit hours**

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)

Grade Mode: Normal Grading Mode

HRM 632 HR for Special Population**3 Credit hours**

An introduction to disabilities focusing on adulthood and employment. The course includes a survey of disability laws, disabilities (physical, sensory, and cognitive), and workplace impacts (accessibility, assistive technology, accommodations).

Grade Mode: Normal Grading Mode

HRM 650 Industrial Psychology**3 Credit hours**

Survey of the applications of psychological principles and of research methodologies to the various human problems in industry, such as personnel selection and appraisal; the organizational and social context of human work; the job and work situation; human errors, accidents, and safety; and the psychological aspects of consumer behavior. (PR: GSM admission)

Grade Mode: Normal Grading Mode

HRM 660 Adm of Compen/Fringe Benefits**3 Credit hours**

The development and administration of wage and salary programs, and an analysis of both private and public health, welfare and pension plans. Topics investigated include motivation theory, factors influencing compensation levels, forms of compensation, including incentive plans and fringe benefits, a critical examination of financing, administration, and general effectiveness of the plans, special issues of managerial compensation, comparable worth, special and related issues. (PR: MGT 620 and GSM admission)

Grade Mode: Normal Grading Mode

HRM 670 Personnel Select & Trng**3 Credit hours**

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)

Grade Mode: Normal Grading Mode

HRM 671 Human Resource Internship**3 Credit hours**

Project-oriented experience in Human Resources intended for those students with insufficient experience in the field. (PR: Permission of program director and HRM 600)

Pre-req: HRM 600.

Grade Mode: Normal Grading Mode

HRM 675 Human Resource Devel & Trng**3 Credit hours**

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)

Grade Mode: Normal Grading Mode

HRM 680 Labor Rel in Public Empl**3 Credit hours**

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)

Grade Mode: Normal Grading Mode

HRM 698 Independent Study in Ind Rel**1-3 Credit hours**

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)

Grade Mode: Normal Grading Mode

Marketing

MKT 511 Marketing and Management 3 Credit hours

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.

Grade Mode: Normal Grading Mode

MKT 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

MKT 581 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

MKT 600 Marketing Management 3 Credit hours

Grade Mode: Normal Grading Mode

MKT 610 Mkt/Nonprofit Organizations 3 Credit hours

Grade Mode: Normal Grading Mode

MKT 625 Hosp and Tourism Marketing 3 Credit hours

Examination of marketing principles and the unique aspects of services marketing for the purpose of strategic decision making, marketing management and developing marketing plans in the tourism and hospitality industry.

Grade Mode: Normal Grading Mode

MKT 650 Special Topics 1-4 Credit hours

Pre-req: MKT 501.

Grade Mode: Normal Grading Mode

MKT 651 Special Topics 1-3 Credit hours

Grade Mode: Normal Grading Mode

MKT 660 Independent Study 1-4 Credit hours

Pre-req: MKT 682.

Grade Mode: Normal Grading Mode

MKT 681 Thesis 1-6 Credit hours

Grade Mode: Normal Grading Mode

MKT 682 Adv Marketing Management 3 Credit hours

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.

Pre-req: MKT 511.

Grade Mode: Normal Grading Mode

MKT 683 Adv Marketing Research 3 Credit hours

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.

Pre-req: MKT 682 and MGT 601.

Grade Mode: Normal Grading Mode

MKT 684 Global Marketing 3 Credit hours

This course provides a decision-oriented approach to global marketing; focus will be placed on market entry strategies, segmentation techniques, and marketing mix decisions in a multi-national environment.

Grade Mode: Normal Grading Mode

MKT 685 Marketing Problems 3 Credit hours

Determination of the marketing mix within the framework of the problem-solving and decision-making process.

Pre-req: MKT 682.

Grade Mode: Normal Grading Mode

MKT 686 IMC for Prof Services 3 Credit hours

The importance and application of integrated marketing communications in marketing professional services are examined. Information is drawn from business and other areas of study and experiential learning activities are incorporated.

Pre-req: MKT 501.

Grade Mode: Normal Grading Mode

MKT 698 Independent Study in Marketing 1-3 Credit hours

Grade Mode: Normal Grading Mode

MKT 749 Research Paper 3 Credit hours

Grade Mode: Normal Grading Mode

MKT 797 THESIS 6 Credit hours

Grade Mode: Normal Grading Mode

Management

MGT 500 Analytic Methods & Tech 3 Credit hours

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.

Grade Mode: Normal Grading Mode

MGT 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

MGT 601 Quant Methods-Business 3 Credit hours

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: Full MBA Admission or Permission of MBA Director)

Pre-req: MGT 500.

Grade Mode: Normal Grading Mode

MGT 610 OPERATIONS MANAGEMENT 3 Credit hours

Grade Mode: Normal Grading Mode

MGT 611 Military Management I 3-9 Credit hours

MGT 611 concerns the theory and practice of a military officer's management plans to attain outcomes consistent with the organization's mission and goals including strategy formulation, implementation and control.

Grade Mode: Credit/No Credit Grade Only

MGT 612 Military Management II 3-9 Credit hours

MGT 612 concerns the theory and practice of a military officer's strategic human resource management plans to attain outcomes consistent with the organization's mission and goals including strategy formulation, implementation and control.

Grade Mode: Credit/No Credit Grade Only

MGT 613 Military Management III 3-9 Credit hours

MGT 613 concerns the theory and practice of a military officer's quantitative and analytical management plans to attain outcomes consistent with the organization's mission and goals including strategy formulation, implementation and control.

Grade Mode: Credit/No Credit Grade Only

MGT 620 Human Resource Management**3 Credit hours**

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: MGT 320 or MKT 511; and GSM admission or permission of GSM academic advisor)

Pre-req: MKT 511.**Grade Mode:** Normal Grading Mode**MGT 630 Mgt & Supervisory Skills Devel****3 Credit hours**

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)

Pre-req: MGT 672 or MGT 503G.**Grade Mode:** Normal Grading Mode**MGT 650 Special Topics****1-4 Credit hours**

PR: Permission of the division head and full M.B.A. admission or permission of GSM academic advisor.

Pre-req: MGT 503 or MGT 503G.**Grade Mode:** Normal Grading Mode**MGT 651 Special Topics****1-3 Credit hours**

PR: Permission of the division head and full M.B.A. admission or permission of GSM academic advisor.

Grade Mode: Normal Grading Mode**MGT 655 Management of Small Business****3 Credit hours****Pre-req:** MGT 501 or MGT 501G.**Grade Mode:** Normal Grading Mode**MGT 660 Independent Study****1-4 Credit hours**

Independent study of a specific nature under the

Grade Mode: Normal Grading Mode**MGT 665 MANAGEMENT INFORMATION SYSTEMS****3 Credit hours****Grade Mode:** Normal Grading Mode**MGT 670 Management Consulting Skills****3 Credit hours****Pre-req:** MGT 672 or MGT 503G.**Grade Mode:** Normal Grading Mode**MGT 671 Business Admin Internship****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**MGT 672 Organizational Behavior****3 Credit hours**

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 the organizational behavior and theory.

Grade Mode: Normal Grading Mode**MGT 673 Prob Personnel Management****3 Credit hours**

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; role of government in manpower administration.

Pre-req: MGT 672 or MGT 503G.**Grade Mode:** Normal Grading Mode**MGT 674 Prod/Operation Management****3 Credit hours**

The study of operations management methods used in production, manufacturing, services and other business operations. Includes project management, capacity planning and transportation problems. (PR: MGT 601 and Full MBA Admission or Permission of MBA Director)

Pre-req: MGT 601.**Grade Mode:** Normal Grading Mode**MGT 675 Prob Labor-Mgt Relations****3 Credit hours**

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.

Pre-req: MGT 672 or MGT 503G.**Grade Mode:** Normal Grading Mode**MGT 676 Organization Theory Design****3 Credit hours**

Analysis of organizational systems and subsystems incorporating traditional, behavioral, and situational approaches to organizational and work unit design. Emphasizes environmental interface and interdependencies as function of internal systems phenomena.

Pre-req: MGT 672 or MGT 503G.**Grade Mode:** Normal Grading Mode**MGT 677 Supply Chain Management****3 Credit hours**

This course is a study of efforts to optimize actions of manufacturers, suppliers, distributors, retailers, and other selected modes in their endeavors to serve the ultimate customers.

Grade Mode: Normal Grading Mode**MGT 680 Entrepreneurship****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MGT 681 Thesis****1-6 Credit hours****Grade Mode:** Normal Grading Mode**MGT 692 Ethics/Global Aspects Bus****3 Credit hours**

An examination of the Manager's social, ethical, and environmental responsibilities, not only to their domestic constituents, but also in the increasingly competitive international arena.

Pre-req: MGT 672.**Grade Mode:** Normal Grading Mode**MGT 696 Admin Policy & Strategy****3 Credit hours**

Capstone graduate business course for Master of Science students (HRM & HCA). Emphasis on policy and strategy issues in a service and/or public setting instead of within a "for-profit" environment.

Grade Mode: Normal Grading Mode**MGT 698 Independent Study in Mgmt****1-3 Credit hours****Grade Mode:** Normal Grading Mode

MGT 699 Strategic Management**3 Credit hours**

The study and application of top management's plan to attain outcomes consistent with the organization's mission and goals, including; strategy formulation, implementation and control. (PR: Permission of GSM academic advisor)

Grade Mode: Normal Grading Mode**MGT 749 RESEARCH PAPER****3 Credit hours****Grade Mode:** Normal Grading Mode**MGT 797 THESIS****6 Credit hours****Grade Mode:** Normal Grading Mode**MGT 799 Business Policy****3 Credit hours****Grade Mode:** Normal Grading Mode

Management and Practice, Nurse Anesthesia

MPNA 700 Health Policy and Delivery**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 710 Fin Mgmt for Health Care Prof****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 711 Mkt & Mgt for Health Care Prof****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 715 Health Economics****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 724 Evidence Based Rsrch Mthds I****3 Credit hours**

This course is designed 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. Student will be IRB certified by the end of the course.

Pre-req: MPNA 700.**Grade Mode:** Normal Grading Mode**MPNA 725 Evidence Based Rsrch Mthds II****3 Credit hours**

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.

Pre-req: MPNA 724.**Grade Mode:** Normal Grading Mode**MPNA 726 Statistical Methods for Resear****3 Credit hours**

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.

Pre-req: MPNA 700.**Grade Mode:** Normal Grading Mode**MPNA 730 Medical/Legal Issues****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 734 Principles of Anesthesia Prac****4 Credit hours**

Principles of patient assessment, airway management, anesthesia machine, monitoring devices, fluid and blood therapy, positioning, and prevention of infection. Recognition and management of selected anesthetic complications.

Grade Mode: Normal Grading Mode**MPNA 734A Simulation Lab****1-5 Credit hours**

In this course students will apply knowledge of the basic principles of anesthesia to "hands on" experience in the simulation lab. Areas covered include the anesthesia machine and other equipment, monitoring modalities, airway management, and all phases of anesthetic management.

Co-req: MPNA 734**Grade Mode:** Normal Grading Mode**MPNA 735 Senior Seminar****3 Credit hours**

Management decisions related to complex anesthesia situations including but not limited to: unusual co-existing disease, uncommon operative procedure, adverse complications or unexpected events.

Grade Mode: Normal Grading Mode**MPNA 743 Management and Leadership****6 Credit hours**

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.

Pre-req: NUR 741.**Grade Mode:** Normal Grading Mode**MPNA 745A Pediatrics for Nurse Anesth I****3 Credit hours**

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.

Grade Mode: Normal Grading Mode

MPNA 745B Obstetrics for Nurse Anesth II**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 745C Case Seminar****6 Credit hours**

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.

Pre-req: NUR 741.**Grade Mode:** Normal Grading Mode**MPNA 753 Mgmt Complex Health Care****3 Credit hours**

In this course, 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.

Pre-req: MPNA 700.**Grade Mode:** Normal Grading Mode**MPNA 755 Mkt Goods/Serv Med Env****3 Credit hours**

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.

Pre-req: MPNA 700.**Grade Mode:** Normal Grading Mode**MPNA 756 Clinical and Admin IS****3 Credit hours**

Foundations of clinical information use starting with information collection, processing, decision making and recording. Special emphasis on management information systems to support the nurse's work and health care delivery.

Pre-req: MGT 678.**Grade Mode:** Normal Grading Mode**MPNA 772 Organizational Behavior****3 Credit hours**

Advanced level theories of effective organization management as they relate to health care organizations will be provided. Topics include: managing diverse work groups in the health care system, planning and organizing, decision making models, various leadership styles, and controlling and evaluating management effectiveness.

Grade Mode: Normal Grading Mode**MPNA 777 Moral Management****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 796 Policy Strategy Entrepreneur****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 799 Research Project****3 Credit hours**

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.

Grade Mode: Normal Grading Mode

Management Information Systems

MIS 650 Special Topics**1-4 Credit hours**

Permission of the division head and full MBA admission.

Grade Mode: Normal Grading Mode**MIS 651 Special Topics****1-4 Credit hours**

Permission of the division head and full MBA admission

Grade Mode: Normal Grading Mode**MIS 678 Management Infor Systems****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MIS 680 Health Comm Telematics****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MIS 685 Bus Intel/Analytics****3 Credit hours**

Introduction to methods to improve fact-based managerial decision making. Focus on analytics types and data manipulation to discover patterns and generate information associated with products and services.

Pre-req: MIS 678.**Grade Mode:** Normal Grading Mode

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 (<https://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>).

In addition to the requirements for admission to Marshall University's Graduate College, 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 coursework;
or

2. Completed the following or equivalent with a 3.0 GPA or higher:

Code	Title	Credit Hours
ACC 311	Intermediate Accounting I	3
ACC 312	Intermediate Accounting II	3
ACC 318	Cost Accounting I	3
ACC 341	Acc Information Systems	3
ACC 348	Federal Taxation	3
ACC 429	Auditing I	3

or

3. A score of 500 or better on the Graduate Management Admission Test (GMAT) or an index of 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 students admitted to the program will complete the following undergraduate courses with a C or better. Students who have completed equivalent courses as a part of their undergraduate degree will receive credit for this requirement. Those who have not completed the courses will complete them as a part of the degree requirements.

Code	Title	Credit Hours
ACC 311	Intermediate Accounting I	3
ACC 312	Intermediate Accounting II	3
ACC 318	Cost Accounting I	3
ACC 341	Acc Information Systems	3
ACC 348	Federal Taxation	3
ACC 429	Auditing I	3

- Conditional Admission can be granted for one term if the applicant meets all program requirements for admission except they have not officially graduated with their bachelor's degree. Once the degree is granted, the applicant would need to resubmit his or her official transcripts for full admission.

Plan of Study

The following courses must be completed:

Code	Title	Credit Hours
Functional Studies		
ACC 615	Audit Theory & Practice	3
ACC 616	Adv Income Tax Procedure	3
ACC 617	Advanced Controllershship	3
ACC 618	Accounting Research	3
ACC 632	Auditing AIS	3

ACC 698	Ethics in Accounting	3
LE 691	Gov Bus Relationships	3

Accounting Electives

Select six hours (any two courses) from graduate accounting courses	6
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Other Elective

Select one of the following:	3
Any graduate Accounting course	
ENT 680	Entrepreneurship
FIN 623	Investments
FIN 626	Sec Anlysis-Portfolio Mgt
FIN 630	Multinational FIN MGT
MGT 601	Quant Methods-Business
MGT 620	Human Resource Management
MGT 677	Supply Chain Management
MGT 692	Ethics/Global Aspects Bus
MIS 685	Bus Intel/Analytics
MKT 682	Adv Marketing Management
MKT 684	Global Marketing
MKT 686	IMC for Prof Services

Total Credit Hours	30
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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.

Business Administration, D.B.A.

Program Description

The Marshall University Doctor of Business Administration program is a research-based doctoral program that combines a disciplined approach to scholarship with a focus on compelling problems of practice. Students will study seminal and contemporary business literature to develop research questions in their area of interest. They will perform literature reviews, design and perform research studies, analyze data, and draw relevant conclusions that affect economic development and business innovation. Students will choose a concentration that focuses on one broad business area, and they will be required to complete a proposal and dissertation as part of the program.

Duration of Degree Program

The proposed D.B.A. program is a 66-credit hour cohort program extending over three years with the course work completed during the first two years. The third year is devoted to the completion of the dissertation. There is no part-time option. The entry term is in August (Fall Semester).

Concentrations

There are three concentration areas to choose from, accounting, health care management, or management and entrepreneurship. Students must declare one of these concentration areas when entering the program and finalize their choice during the first semester of study. D.B.A. program students will be required to attend two academic

conferences related to their concentration area that are approved by the D.B.A. Program Committee.

Dissertation

D.B.A. program students will complete and submit a doctoral dissertation to their Dissertation Committee. The D.B.A. dissertation will need to show relevance to practice, consistency with the appropriate literature, and have appropriate methodology and analysis to support the conclusions drawn. Research at the doctoral level should contribute to knowledge in the student's discipline and should demonstrate the student's ability to develop and carry out independent research. Students must submit all research involving the use of human subjects to Marshall's Institutional Review Board for review and approval.

Students will take the dissertation courses (DBA 791) both semesters of the third year upon satisfactory completion of all other coursework and the proposal defense. These courses require students to work toward completing their proposed research and writing a dissertation about the research and findings. Students must defend their dissertation upon completion of the 18 dissertation credit hours.

Grades and Time Frame

Proposal and dissertation courses are graded pass/fail. Students must pass these courses and complete all other courses with a grade of "B" or better. Should a student fail to pass or complete a course with the required grade, the DBA Program Committee may offer an alternative activity as a substitute or place the student on academic probation that, in some circumstances, could lead to dismissal from the program. Students must enroll in, and pay for, additional Dissertation (DBA 791) credits if they do not complete their dissertation after the 66 required hours. The D.B.A. Program Committee will handle other delays in progress on a case-by-case basis. Students must complete the D.B.A. dissertation and program within six years of admittance to the program.

Program Delivery

Classes in the proposed D.B.A. program will be delivered using the hybrid method that includes both online and face-to-face interactions. The face-to-face portion of the classes will be scheduled to meet approximately two times during the fall and spring semesters, and once in the summer semester (e.g., fall term: September and November, spring term: February and April, summer term: June). These face-to-face classes will be scheduled on Fridays and Saturdays and will consist of approximately 12 to 15 hours of instruction. The remainder of the instruction and coursework will be completed online using Marshall's MUOnline learning platform. These online courses will be delivered asynchronously so that each student may work at a personal pace. Students will be required to possess a personal computer that is compatible with MU software for completion of the coursework.

Admission Requirements

The program will admit students every fall semester in a cohort. Students must meet all MU requirements for admission and be admitted to the Marshall University Graduate College. Please refer to their webpage at <https://www.marshall.edu/graduate/select-your-degree-orcertificate> (<https://www.marshall.edu/graduate/select-your-degree-orcertificate> program/how-to-apply-for-admission/)

[program/how-to-apply-for-admission/](https://www.marshall.edu/graduate/select-your-degree-orcertificate).

The admission process for the D.B.A. program will be competitive and will emphasize academic ability, professional work experience, and other indicators of potential for program success. The D.B.A. Program Committee will consider the following items as preferred qualifications:

- A completed master's degree in business or a related area from an appropriately accredited institution (must have a bachelor's degree at minimum);
- GMAT or GRE scores;
- Relevant professional and/or senior level management experience; and
- Other evidence of achievements and experience including written or oral contributions to the field of expertise, professional certifications, professional development programs, and awards/honors.

The D.B.A. Program Committee is more likely to consider candidates for admission to the program if they have more of these qualifications. The materials that are required in the application package include:

- A cover letter and resume listing and describing the applicant's academic and work experience, and other qualifications;
- A personal interest statement that is 4 to 5 pages in length and explains the candidate's objectives for joining the program, goals upon graduation, potential research questions of interest, and how the candidate's work experience will contribute to this research;
- Academic transcripts showing all undergraduate work and graduate work, if applicable; and
- Three letters of recommendation.

The D.B.A. Program Committee will review all documents to identify candidates who have a high likelihood of succeeding in the program. The D.B.A. Program Committee will interview these candidates before making a final offer.

Plan of Study

Code	Title	Credit Hours
<i>First Semester (Fall)</i>		
DBA 701	Res Bus & Econ Dev	3
DBA 710	Bus Research Design Method	3
DBA 711	Bus Quant Methods I	3
<i>Second Semester (Spring)</i>		
DBA 702	Cur Research Bus Innovation	3
DBA 712	Bus Quant Method II	3
Choose one of the following depending on area of concentration:		
DBA 720	Research Sem in Man Acct	
DBA 730	Research Sem in HC Delivery	
DBA 740	Research Sem HRM	
<i>Third Semester (Summer)</i>		
DBA 703	Cur Research Issues Bus Tech	3
Choose one of the following depending on area of concentration:		
DBA 721	Research Sem in Audit	
DBA 731	Res Mgr Epidemiology	
DBA 741	Res Op Bus Models & Strat	

<i>Fourth Semester (Fall)</i>		
DBA 704	Research Global & Intl Bus	3
DBA 713	Bus Quant III	3
Choose one of the following depending on area of concentration:		
DBA 722	Research Sem in Fin Acct	
DBA 732	Res Sem HC Inform Mgt	
DBA 742	Res Sem in Entr, Sm Bus, & FF	
<i>Fifth Semester (Spring)</i>		
DBA 705	Ped in Bus Schools	3
DBA 714	Qual Methods	3
DBA 790	Dissertation Design	3-6
<i>Sixth Semester (Summer)</i>		
DBA 790	Dissertation Design	3-6
<i>Seventh Semester (Fall)</i>		
DBA 791	Dissertation	9-18
<i>Eighth Semester (Spring)</i>		
DBA 791	Dissertation	9-18

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 undergraduate prerequisite 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:

Code	Title	Credit Hours
Undergraduate prerequisite business courses, as determined by the M.B.A. Director and/or the GSM Academic Advisor		

M.B.A. Functional Studies courses	36
Total Credit Hours	36-54

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.

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., with M.B.A. or M.S. in Accountancy, 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 Accountancy, 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.

Dual Degree: Pharm.D. and M.B.A.

Students admitted to the School of Pharmacy may also seek admission to the Graduate College to pursue a Master of Business Administration (M.B.A.) degree. The application procedure and the student's enrollment status will vary depending on the student's undergraduate degree.

All students wishing to pursue the dual degree option must first consult with the Pharm. D. advisor regarding when they should apply for admission. Students who are admitted to the M.B.A. program will be advised by a Pharm. D. advisor and an M.B.A. advisor. The advisors are responsible for ensuring students are making appropriate progress toward both degrees, enroll in the proper sequence of courses, and enroll in the proper section of the courses.

Pharm. D. Students Holding a Baccalaureate Degree: All students who have earned a baccalaureate degree from a regionally accredited college or university may apply for admission to the M.B.A. program. Students must meet the published admission criteria and complete the published degree requirements for the M.B.A. program. When admitted, the student will be classified depending upon his or her completion of core business courses.

Pharm. D. Students Who Do Not Have a Baccalaureate Degree: Students who have not earned a baccalaureate degree from a regionally accredited college or university may apply for admission to the M.B.A. program and pursue the degree under the following conditions. During their enrollment in the two degree programs, students who do not hold the baccalaureate will be continuously classified as Provisionally Admitted for the M.B.A. program. Students beginning the final

semester of the Pharm. D. program of study will apply for graduation. Students in good academic standing in both programs and eligible to receive both degrees at the end of the term will be reclassified as Fully Admitted to the M.B.A. program. Students who withdraw or are dismissed from the Pharm. D. program will also be withdrawn from the M.B.A. program regardless of level of degree completion or academic standing.

Admission Requirements

Full Admission

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: www.marshall.edu/graduate (<https://www.marshall.edu/graduate/>).

Applicants must submit a copy of their resume, and 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.
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, in addition to the resume, two letters of recommendation. Applicant may also submit additional documents such as statement of purpose, test scores, etc.
3. Have successfully completed the undergraduate prerequisite business courses with a 3.0 or higher.
or
4. Have a doctoral degree from a regionally accredited institution.

Conditional Admission

Conditional Admission can be granted for one term if the applicant meets all program requirements for admission except they have not officially graduated with their bachelor's degree. Once the degree is granted the applicant would need to resubmit their official transcripts for full admission.

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.

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 (<https://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>).

A student required to take undergraduate prerequisite business courses may not take a 600-level course without the approval of the GSM Academic Advisor.

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 required within the final, integrated capstone course, MGT 699 Strategic Management, "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 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

All students are required to complete 36 hours of M.B.A. Functional Studies courses and 0-18 hours of undergraduate prerequisite business 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 Strategic Management, "Business Policy and Strategy."

Area of Concentration

Students who choose to take two elective courses in either Accounting, Marketing, Finance, Management, Health Care Administration, or Human Resource Management in addition to the functional studies courses can receive a concentration in that functional area. Active military personnel electing to transfer 9 credit hours from the accepted military schools/courses in addition to the functional studies courses can receive a concentration in military management.

Plan of Study

Code	Title	Credit Hours
Undergraduate Foundation Courses		
ACC 215 	Accounting Principles (CT)	
ECN 250	Principles Microeconomics	
FIN 323	Principles of Finance	
MGT 218	Business Quantitative Methods	
MGT 320	Principles of Management	
MKT 340	MKT Concepts and Applications	
M.B.A. Functional Studies Courses		
MGT 601	Quant Methods-Business	3
ACC 613	Profit Planning & Control	3
FIN 620	Financial Management	3
MGT 672	Organizational Behavior	3
MKT 682	Adv Marketing Management	3
MIS 678	Management Infor Systems	3
ECN 630	Managerial Economics	3
MGT 674	Prod/Operation Management	3
MGT 699	Strategic Management	3
Select three elective courses		9
Total Credit Hours		36

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 (<https://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>).

Applicants also must submit a copy of their resume and 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. An undergraduate degree from a regionally accredited institution with a minimum undergraduate GPA of 2.5-2.99 on a 4.0 scale for

all previously completed undergraduate university work, and, in addition to the resume, two letters of recommendation. Applicant may also submit additional documents such as statement of purpose, test scores, etc.

or

3. Have a doctoral degree from a regionally accredited institution.

Conditional Admission

Conditional Admission can be granted for one term if the applicant meets all program requirements for admission except they have not officially graduated with their bachelor's degree. Once the degree is granted, the applicant would need to resubmit his or her official transcripts for full admission.

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 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, HCA 695 Fld Res/Health Care Mgt.

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 M.B.A. Director. Cooperative programs with other departments must be approved by the M.B.A. 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.

Plan of Study

Code	Title	Credit Hours
Course Requirements		
HCA 600	The Health Care System	3
HCA 640	The Health Care Professional	3
HCA 610	Health Care Financial Mgt	3
HCA 615	Health Care Econ	3
HCA 653	Integrated Health Care Del Sys	3
HCA 630	Legal Issues/Health Care Mgt	3
HCA 656	Mgt of Medical Technology	3
HCA 658	Long Term Care	3
HCA 655	Health Care Marketing	3
HCA 695	Fld Res/Health Care Mgt	3
Two Electives approved by advisor (one must be an HCA elective)		6
Total Credit Hours		36

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 (<https://www.bls.gov> (<http://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.

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 <https://www.marshall.edu/cob/graduate/health-informatics/>.

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/ (<http://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 2.5 or higher on a 4.0 scale from their undergraduate degree granting institution.

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.

Health Informatics Practicum

(400 hours)

MSHI students will be required to complete the Health Informatics Practicum (HP 650 Health Infor Practicum), 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 Health Infor Practicum. For more details about the practicum, see the MSHI Practicum Web page.

Plan of Study

Students must take courses from 3 colleges:

Code	Title	Credit Hours
College of Health Professions Courses		
HP 605	The Role of EHR and PHR	3
HP 615	Health Quality and Safety	3
HP 650	Health Infor Practicum	3
HP 620	Legal Health & Informat	3
HP 630	Research Methods and Data	3
Select one of the following:		1-4
HP 686	Independent Study	
HP 687	Independent Study	
HP 688	Independent Study	
College of Business Courses		
MIS 678	Management Infor Systems	3
HCA 600	The Health Care System	3
HCA 656	Mgt of Medical Technology	3
MIS 680	Health Comm Telematics	3
College of Information Technology and Engineering Courses		
IS 623	Database Management	3
EM 660	Project Management	3
IS 665	Health Care Enterpr Info Syst (or elective)	3
TM 664	Health Informatics	3
Total Credit Hours		40-43

Human Resource Management, M.S. Program Description

The Master of Science in Human Resource Management degree program prepares graduates for research and administrative positions

in human resource management. Graduates will be qualified for careers in both the public and private sector. Potential employers would include: small, mid-size, and large private sector organizations; labor unions; other employee associations; local, state, and federal government; and agencies concerned with employer-employee relations. Content areas include: human resource management; trade unionism and collective bargaining; the recruitment and selection process; employee training and development; and legal and public policy issues, which may relate to any of the preceding. Content is examined through the varied paradigms of societal, legal, organizational, economic, and political considerations. The study of human resource management is grounded in the knowledge and methods developed in a number of traditional areas of study. The major disciplines represented in the program are psychology, sociology, management, and law.

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 (<https://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>).

Applicants also must submit a copy of their resume and 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. An undergraduate degree from a regionally accredited institution with a minimum undergraduate GPA of 2.5-2.99 on a 4.0 scale for all previously completed undergraduate university work, and, in addition to the resume, two letters of recommendation. Applicant may also submit additional documents such as statement of purpose, test scores, etc.
or
3. Have successfully completed the Management Foundations Certificate program with a 3.0 or higher
or
4. 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.

Conditional Admission

Conditional Admission can be granted for one term if the applicant meets all program requirements for Admission except they have not officially graduated with their bachelor degree. Once the degree is granted the applicant would need to resubmit their official transcripts for full admission.

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 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 696 Admin Policy & 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.

Plan of Study

Code	Title	Credit Hours
Foundation Courses		
Required as determined by the Academic Advisor		0-3
M.S.H.R.M Core Courses		
HRM 600	Development of Labor Relations	3
HRM 610	Collective Bargaining	3
MGT 620	Human Resource Management	3
HRM 630	Labor Law	3
HRM 660	Adm of Compen/Fringe Benefits	3
HRM 670	Personnel Select & Trng	3

HRM 675	Human Resource Devel & Trng	3
MGT 672	Organizational Behavior	3
MGT 696	Admin Policy & Strategy	3
Electives		
Select three hours of electives		3
Total Credit Hours		30-33

Nurse Anesthesia Practice and Management, D.N.A.P. Program Description

The Doctor of Nurse Anesthesia Practice and Management (D.N.A.P.) program is an innovative practice doctorate developed jointly by the Lewis College of Business and the Charleston Area Medical Center Health Education and Research Institute School of Nurse Anesthesia (CAMC). The program offers a unique combination of advanced professional nurse anesthesia practice and entrepreneurial business management training.

The 36-month program is delivered in an integrated classroom and clinical format designed to prepare certified registered nurses for a career in the field of nurse anesthesia. At the end of the program, graduates will have completed 127 hours of study and clinical practice as well as a comprehensive doctoral research project. Students attend classes at the Marshall University South Charleston campus as well as CAMC's medical facilities in Charleston.

The program is accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs (COA). The COA is fully accredited by the U.S. Department of Education (USDE) and the Council for Higher Education Accreditation (CHEA).

Admission Requirements

Full Admission

All applicants must meet the following criteria. The program does not offer conditional or provisional admission.

1. Graduate from an approved baccalaureate or higher degree generic program in nursing or graduate from an approved associate degree with an appropriate baccalaureate degree.
2. Minimum baccalaureate GPA of 3.0 on a 4.0 scale will be verified by reviewing transcript of degree-granting institution
3. Graduate Record Examination (GRE) scores submitted from the Education Testing Service, sent directly to Marshall University Graduate College, whose Institutional Code reporting number is 5396.
 - a. A photo copy of the student report GRE scores should be included with the CAMC application.
 - b. GRE scores must be no older than five (5) years.
 - c. Preferred minimum scores are Verbal 153 and Quantitative 144.
 - d. Please note the dates of score reporting in the GRE booklet and schedule the test so that the scores will be reported in time for full consideration of your application.
4. A current, valid, professional registered nursing license in one jurisdiction of the United States, which satisfies the requirements of the West Virginia Board of Examiners for Registered Professional

Nurses. Once admitted, the School requires all in state and out of state students to maintain licensure in the State of West Virginia.

5. A minimum of one year full time work experience (two years preferred) or its part time equivalent, as a RN in a critical care setting. The applicant must have developed as an independent decision-maker, capable of using and interpreting advanced monitoring techniques based on knowledge of physiological and pharmacological principles.
6. Three (3) references by persons in the medical profession who are familiar with the applicant's qualifications. One must be from the applicant's immediate supervisor.
7. Resume detailing education and work experience.
8. A personal interview may be requested.

Program Requirements

Plan of Study

All students in this program are required to complete a comprehensive program of study including the courses listed below. The department maintains a well-established rotation of courses that allows students to complete the degree requirements in a timely manner.

Grade Point Average

All students must maintain a 3.0 overall GPA in all program coursework. Students are advised to read the department's Student Handbook with care, as that document lists other program requirements for students to remain in good standing.

Final Research Project

The culminating requirement for the D.M.P.N.A. degree is a research project that allows the student an opportunity to develop and demonstrate a synthesis of graduate knowledge and skills within the context of improving health care. Every research project will include the synthesis of strategic, creative thinking, decision making, planning, project management, and communication skills that are hallmarks of a D.M.P.N.A. graduate. The D.M.P.N.A. program at Marshall University follows a practitioner-scholar model. The emphasis is on understanding the field of nurse anesthesia as an empirically-informed discipline. A D.M.P.N.A. student must develop his or her proposal in consultation with his/her research project committee chair, and the final project report must both be approved by the entire research project committee. The research project must receive Office of Institutional Integrity approval and the student must successfully defend the written and oral presentation.

Plan of Study

Code	Title	Credit Hours
BSC 716	Adv Cell Phys Nurse Anesthesia	2
BSC 717	Adv Ana Phy Path Nurse 1	3
BSC 718	Adv Ana Phy Path Nurse 2	3
BSC 719	Adv Ana Phy Path Nurse 3	3
CHM 723	Chemistry and Physics	3
MPNA 700	Health Policy and Delivery	3
MPNA 710	Fin Mgmt for Health Care Prof	3
MPNA 711	Mkt & Mgt for Health Care Prof	3
MPNA 715	Health Economics	3
MPNA 724	Evidence Based Rsrch Mthds I	3

MPNA 725	Evidence Based Rsrch Mthds II	3
MPNA 726	Statistical Methods for Resear	3
MPNA 730	Medical/Legal Issues	3
MPNA 734	Principles of Anesthesia Prac	4
MPNA 734A	Simulation Lab	1-5
MPNA 743	Management and Leadership	6
MPNA 745A	Pediatrics for Nurse Anesth I	3
MPNA 745B	Obstetrics for Nurse Anesth II	3
MPNA 745C	Case Seminar	6
MPNA 753	Mgmt Complex Health Care	3
MPNA 755	Mkt Goods/Serv Med Env	3
MPNA 756	Clinical and Admin IS	3
MPNA 772	Organizational Behavior	3
MPNA 777	Moral Management	3
MPNA 796	Policy Strategy Entrepreneur	3
MPNA 799	Research Project	3
MPNA 799	Research Project	3
MPNA 799	Research Project	3
NUR 720	Adv Pharm Nurse Anes I	4
NUR 721	Adv Pharm Nurse Anesth II	3
NUR 735	Clinical Practice Inquiry	3
NUR 741	Adv HC Prac/Phys As	6
NUR 741A	Health Care Clinical Practicum (Mentoring)	1
NUR 741A	Health Care Clinical Practicum	1
NUR 741A	Health Care Clinical Practicum	1
NUR 741A	Health Care Clinical Practicum	1
NUR 741A	Health Care Clinical Practicum	1
NUR 741A	Health Care Clinical Practicum	1
NUR 741B	Nurse Anesth Prof Practice	3
NUR 741C	Health Care Practicum	6
NUR 741C	Health Care Practicum	6
NUR 741C	Health Care Practicum	6
NUR 741C	Health Care Practicum	6
NUR 744	Regional Anesthesia	1

Total Credit Hours

138-142

Nursing Informatics, Graduate Certificate

According to the American Nurse Association (ANA), nursing informatics is a specialty that integrates nursing science, computer science, and information science to manage and communicate data, information, knowledge, and wisdom in the nursing practice. The ultimate goal of Nursing Informatics is to improve patient health through information technology. Nursing Informatics strives to

1. enhance the productivity of nurses by utilizing information technology,
2. facilitate innovative solutions in healthcare, and
3. reduce costs through evidence-based decisions obtained from clinical data.

The Marshall University Nursing Informatics certificate is designed to enable nurses to evaluate and design new or modified information solutions, analyze data in order to improve nursing workflow and

reduce errors, act as a liaison between nurses and technical engineers, develop strategies and policies involving information technology in nursing, and understand how information technology is used to ensure patient security and confidentiality.

Nursing informatics is for individuals that have passion for nursing and can see information technology as a tool to achieve improvement in the healthcare arena. The certificate is designed to complement existing nursing degrees and to suit the needs of students and professionals who want to specialize in the fast-expanding field of nursing information. Students who should apply for the certificate program would be individuals with a bachelor's in nursing.

In the HIMSS 2014 Nursing Informatics Workforce Survey, conducted by the Healthcare Information and Management Systems Society, the median salary reported for Nurse Informaticist was \$93,000. The average salary reported was \$100,717. Health informatics is a rapidly expanding career field. According to the American Medical Informatics Association (AMIA), around 70,000 specialists in this field will be needed within the next few years -including nursing Informaticist.

Admission Requirements

Applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website. (Submit all materials to the Graduate Admissions Office.) Students must meet the following admission requirements:

- Each student must hold a B.S.N. degree from a program accredited by ACEN, CCNE, or an equivalent accrediting body.
- Cumulative Grade Point Average of 3.0 on a 4.0 scale for all undergraduate coursework.
- Undergraduate coursework must include 3 semester credit hours of basic statistics and 3 semester credit hours of basic research with a grade of C or better.

If a student plans to sit for the ANCC-informatics nursing credentialing, they must also:

- Hold a current, active RN license in a state or territory of the United States or hold the professional, legally recognized equivalent in another country.
- Have practiced the equivalent of 2 years full time as a registered nurse immediately prior to application.

Plan of Study

Code	Title	Credit Hours
Course Requirements		
HP 605	The Role of EHR and PHR	3
HP 615	Health Quality and Safety	3
HP 620	Legal Health & Informat	3
HP 630	Research Methods and Data	3
IS 535	Applied Healthcare DB	3
or IS 623	Database Management	
HP 650	Health Infor Practicum	3
Total Credit Hours		18

Courses in the certificate can be also applied to a master's degree in health informatics.

Online Data Analytics in Health Care, Graduate Certificate

Data analytics is the process of acquiring, extracting, integrating, transforming, and modeling data with the goal of deriving useful information. Its application is growing rapidly in health care organizations across the globe. Data Analytics in Health Care enables the systematic use of data to drive fact-based decision-making to assist in health care planning, management and measurement. However, many organizations lack the knowledge to effectively utilize data analytics. As a result, according to a survey published by Journal of AHIMA (2015), healthcare big data analytics and informatics skills will be among the most sought-after competencies for health information management (HIM) professionals in the next few years.

The Marshall University Online Data Analytics in Health Care certificate is designed to provide health care professionals with the skills required to compete for data analysis jobs amid rising demand in the health care industry. The certificate program will explore the intricacies of data analytics and expose students to various topics related to data processing, integration, analysis, and visualization. Individuals who complete this program will have a solid framework of data analytics methodologies accompanied by exposure to the tools used for knowledge discovery pertinent to health care.

The certificate is intended for students who are interested in transforming the massive data being produced in the health care industry into meaningful information. They are the individuals who want to determine what decisions or actions should be taken to generate value from the healthcare data produced every day.

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 for all previously completed undergraduate university work, and ORE scores from ORE test taken within the past five years.

Plan of Study

Students must take the following courses:

Code	Title	Credit Hours
HP 605	The Role of EHR and PHR	3
HP 610	Analytics for Healthcare	3
HP 630	Research Methods and Data	3
IS 535	Applied Healthcare DB	3
or IS 623	Database Management	
IS 545	Healthcare Data Analytics	3
Total Credit Hours		15

Courses in this certificate program can also be applied to a master's degree in health informatics.

College of Education and Professional Development

Contacts: Dr. Teresa Eagle, Dean

Website: <https://www.marshall.edu/coepd> (<https://www.marshall.edu/coepd/>)

coepd@marshall.edu

Programs

- Adult and Continuing Education, M.S. (p. 121)
- Counseling, M.A. (p. 123)
- Curriculum and Instruction, Ed.D. (p. 126)
- Curriculum and Instruction, Ed.S. (p. 127)
- Education, M.A. (p. 127)
- Leadership Studies, Ed.D. (p. 131)
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- Literacy Education, Ed.S. (p. 132)
- Literacy Education, M.A. (p. 134)
- Program Evaluation, Certificate (p. 135)
- School Psychology, Ed.S. (p. 135)
- School Superintendent, Licensure (p. 136)
- Social Service and Attendance, Certificate/Licensure (p. 137)
- Special Education, M.A. (p. 137)
- Supervisor of Instruction, Licensure (p. 139)
- Teaching, M.A.T. (p. 139)
- Violence, Loss and Trauma Counseling, Graduate Certificate (p. 142)

Courses

Adult & Continuing Education

ACE 503 Intro to Adult Learning Theory 3 Credit hours

Designed to acquaint the student with the field of adult education and its underpinnings and the various adult learning theories and/or approaches.

Grade Mode: Normal Grading Mode

ACE 505 Inst Methods in Tech Training 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ACE 508 Teach Methods Career Tech Educ 3 Credit hours

Correlating Lab instruction with classroom instruction; individual and group instruction sheets and materials; the four teaching steps in career and technical education; and physical factors relating to classroom and lab.

Grade Mode: Normal Grading Mode

ACE 510 Developing Selling Curriculum 3 Credit hours

Conduct library research, review selling content, select content objectives, identify content appropriate for the target group, prepare teaching outlines, and design evaluation instruments.

Grade Mode: Normal Grading Mode

ACE 511 Intro to Career and Tech Educ 3 Credit hours

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 teacher competence.

Grade Mode: Normal Grading Mode

ACE 512 Crs Constr Plan Career Tech Ed 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ACE 513 Org Manage Sch Shops & Labs 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ACE 520 Principles Cooperative Ed 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ACE 521 Occupational Analysis 3 Credit hours

Assist the instructor in analyzing an occupation; goals and objectives to form a basis for curriculum; classifying and describing occupations; analysis procedures; course content, and technical skills and knowledge.

Grade Mode: Normal Grading Mode

ACE 522 Admin of Cooperative Programs 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ACE 524 Safety in Career Technical Ed 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ACE 525 Computer Appl Bus & Mkt 3 Credit hours

Study of computer applications and software for Business and Marketing Education.

Grade Mode: Normal Grading Mode

ACE 535 Methods of Exam Career Tech Ed 3 Credit hours

Develop written and performance evaluation instruments: develop and use progress charts; determine appropriate grading procedures. Develop rating scales, objectives tests, classroom tests, manipulative tests, introduction to statistics.

Grade Mode: Normal Grading Mode

ACE 536 Coord Coop Career Tech Ed 3 Credit hours

Background of Coordination; methods and techniques for evaluating and selecting work stations, student selection, placement and follow-up; role of advisory committees; method of evaluating cooperative work experience.

Grade Mode: Normal Grading Mode

ACE 540 Dev Merch/Sales Prom Curr	3 Credit hours	ACE 580 Special Topics	1-4 Credit hours
Conduct library research, review merchandising and sales promotion content, objectives, identify content appropriate for the target group, prepare teaching outlines, and design evaluation instruments.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ACE 581 Special Topics	1-4 Credit hours
ACE 542 Prin Prevoc Exploration	3 Credit hours	Grade Mode: Normal Grading Mode	
Study of the prevocational exploration delivery system and develop instructional units which include goals, objectives, and criteria for evaluation of students.		ACE 582 Special Topics	1-4 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ACE 547 Computer Appl Career Tech Ed	3 Credit hours	ACE 583 Special Topics	1-4 Credit hours
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.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ACE 584 Special Topics	1-4 Credit hours
ACE 548 Appl Basic Skills Career Tech	3 Credit hours	Grade Mode: Normal Grading Mode	
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.		ACE 585 Independent Study	1-4 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ACE 549 Occup Analysis Instruct Design	3 Credit hours	ACE 586 Independent Study	1-4 Credit hours
Analyzing an occupation to identify knowledge and skill; use of the analysis to develop problem solving objectives and instructional plans; emphasis on approach to facilitate student achievement of objectives.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ACE 587 Independent Study	1-4 Credit hours
ACE 550 Interper Skills in Workplace	3 Credit hours	Grade Mode: Normal Grading Mode	
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.		ACE 588 Independent Study	1-4 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ACE 552 Hist & Phil of Career Tech Ed	3 Credit hours	ACE 591 Workshop	1-4 Credit hours
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.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ACE 592 Workshop	1-4 Credit hours
ACE 559 Coord Career Tech Youth Activ	3 Credit hours	Grade Mode: Normal Grading Mode	
Organize and develop a co-curricular student organization; defining the purpose of the organization; plan application and integration into the career and technical program; competencies in leadership and team building.		ACE 593 Workshop	1-4 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ACE 565 Career Exploration & Develop	3 Credit hours	ACE 594 Workshop	1-4 Credit hours
Exploring principles and techniques for career planning and job search. An overview of strategies for gaining a competitive edge in the labor market and experiencing a successful career beginning.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ACE 595 Hist Dev in Workforce Prep	3 Credit hours
ACE 569 Bus & Occupation Teach Methods	3 Credit hours	An overview of the historical evolution of technical education legislation; analysis of Technical Education Acts as they relate to state and local planning of technical education programs.	
Survey of materials and methods for developing competencies in teaching business education and/or occupational training programs.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ACE 600 Aspects of Train and Dev	3 Credit hours
ACE 570 Practicum Adult & Tech Ed	1-4 Credit hours	Overview of the training and development profession and theories that support the profession; emphasis on the variety of solutions used by HRD professionals to help improve individual and organizational performance.	
Individually designed field experience under supervision of the faculty; such experience related to the student's future professional role. (GRADING: CR/NC)		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ACE 601 Philosophy Workforce Prep	3 Credit hours
		Overview of the historical origins of technical education and their relationship to educational philosophies; foundations of areas of technical education; analysis of questions fundamental to a philosophy of technical education.	
		Grade Mode: Normal Grading Mode	
		ACE 603 Intro to Adult Ed & Learners	3 Credit hours
		Designing to acquaint the student with the field of adult and continuing education, its foundations and development in this country and future trends	
		Grade Mode: Normal Grading Mode	
		ACE 605 Foundations Bus & Mkt Ed	3 Credit hours
		Application of philosophy and principles of business and marketing education to the objectives, curriculum, guidance, and teacher preparation, emphasizing the techniques for coordination of federally aided programs.	
		Grade Mode: Normal Grading Mode	

ACE 609 Develop Training Plans for B/I**3 Credit hours**

Analysis of factors in developing local plans for business and industry; emphasis on implications of federal guidelines; factors which impinge upon programs during implementation; developing evaluation procedures.

Grade Mode: Normal Grading Mode**ACE 610 Current Issues Bus & Mkt Ed****3 Credit hours**

Individual and group analysis of current issues in business and marketing; identification of issues significant to the direction of sound business and marketing education programs.

Grade Mode: Normal Grading Mode**ACE 614 ACE & Econ Dev****3 Credit hours**

Study of the sources of data on employment needs; relationship to planning techniques for conducting a community survey; organizing data for analysis and applying the findings to the planning process.

Grade Mode: Normal Grading Mode**ACE 615 Student Career Organizations****3 Credit hours**

A study of various facets of existing state/national student organizations. Special emphasis is placed upon the organizations of student career organizations and parliamentary procedures. (PR: ACE 542 or equivalent)

Grade Mode: Normal Grading Mode**ACE 616 Community Relations in ACE****3 Credit hours**

Study of community organizations and the relationship of adult and continuing education; consideration of models for analyzing employment opportunities and occupational training needs and the process in securing community commitment.

Grade Mode: Normal Grading Mode**ACE 618 Literature Adult Contin Educ****3 Credit hours**

A program of readings and reports on specific areas in adult education or particular problems within an area of adult and continuing education. Readings to be selected cooperatively with advisor.

Grade Mode: Normal Grading Mode**ACE 628 Adult Inst Envir & Pers Aspect****3 Credit hours**

The course examines both environmental and personal factors which may impact on the adult learning process and is designed to foster awareness, which will be translated into appropriate intervention strategies.

Grade Mode: Normal Grading Mode**ACE 631 Survey Prac Computer Appl****3 Credit hours**

An introductory course for persons who want to become familiar with the application of computers in the business/industrial fields represented by adult and technical education.

Grade Mode: Normal Grading Mode**ACE 635 Spec Pract Comp App Bus & Ind****3 Credit hours**

An advanced course for persons who want to further their knowledge of the application of computers in the business and industrial fields, which are represented by adult and continuing education.

Grade Mode: Normal Grading Mode**ACE 637 Indiv Computer Prog App****3 Credit hours**

Individually designed learning activities that involve the application of previously learned theories, processes, operations, techniques, or systems. The applications are studied, analyzed, and evaluated. (PR: ATE 631, Equivalent or appropriate experience, CR/NC Grading).

Pre-req: ACE 631 or ATE 631.**Grade Mode:** Normal Grading Mode**ACE 643 Teaching EFL Abroad****3 Credit hours**

Designed to explore the educational history of teaching a foreign language in different countries.

Grade Mode: Normal Grading Mode**ACE 650 Career Educ Curriculum Dev****3 Credit hours**

Instructional unit is developed to assist children and youth to achieve academic, general, or technical education and also career education goals; includes goals, objectives, procedures, student activities, resources, and evaluation.

Grade Mode: Normal Grading Mode**ACE 651 Developing Marketing Curr****3 Credit hours**

Conduct library research, review marketing content, select content objectives, identify content appropriate for the target group, prepare teaching outlines, and design evaluation instruments.

Grade Mode: Normal Grading Mode**ACE 652 Field Based Job Analysis****3 Credit hours**

Field study of job analysis, curriculum, course and program design.

Grade Mode: Normal Grading Mode**ACE 653 Develop Management Curr****3 Credit hours**

Conduct library research, review management content, select content objectives, identify content appropriate for the target group, prepare teaching outlines, and design evaluation instruments.

Grade Mode: Normal Grading Mode**ACE 655 Developing Human Resources Cur****3 Credit hours**

Conduct library research, review personnel content, select content objectives, identify content appropriate for the target group, prepare teaching outlines, and design evaluation instruments.

Grade Mode: Normal Grading Mode**ACE 656 Instr Planning for Adults****3 Credit hours**

An examination and application of the process involved in the development, operation, and evaluation of adult programs in the community, business, and industry.

Grade Mode: Normal Grading Mode**ACE 659 EFL Methods****3 Credit hours**

Designed to provide students with the latest methodologies associated with teaching English as a Foreign Language (EFL) to the adult learner. (PR: ACE 643)

Grade Mode: Normal Grading Mode**ACE 661 Practicum ACE****3 Credit hours**

Individually designed to provide field experience under the supervision of the faculty, such experience to be related to the student's project role in adult and continuing education.

Grade Mode: Normal Grading Mode**ACE 662 App Field Exp Prevoc Explor****3 Credit hours**

Students are assisted in making revisions in instructional units, organizing an advisory committee, and organizing Career Exploration Club as an integral part of the classroom function. (PR ACE 542)

Grade Mode: Normal Grading Mode**ACE 663 Practicum EFL****3 Credit hours**

Designed to engage the student in hands-on teaching in a classroom setting. (PR ACE 659)

Grade Mode: Normal Grading Mode

ACE 664 Technical Ed Practicum**3 Credit hours**

Individually designed to provide field experience under the supervision of the faculty, such experience to be related to the student's profession. (CR/NC Grading) (PR: At least 8 of the following courses and permission of instructor: ACE 601, 609, 614, 646, 648, EDA 500, 600, 640, 740)

Grade Mode: Normal Grading Mode**ACE 667 Co-Op Ed Work Force Exp****1-10 Credit hours**

Alternating or parallel periods of study and paid employment for experiential learning related to student's academic and/or professional goals (Min 50 hours paid work experience per credit hour) (CR/NC GRADING)

Grade Mode: Normal Grading Mode**ACE 668 Internship Field Based Bus/Ind****3 Credit hours**

Internship in the technical content areas of marketing, merchandising, management, or technology. Evaluation of methods, and procedures in marketing, merchandising, management, or technology. (PR: ACE 609, 628, 652, and 656)

Grade Mode: Normal Grading Mode**ACE 671 Eval of Adult and Tech Educ****3 Credit hours**

An examination of the design and evaluation processes used in adult learning areas with emphasis on the T&D and technical fields as well as the general field.

Grade Mode: Normal Grading Mode**ACE 673 Assessment in Adult Tech****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ACE 675 Literature & Research ACE****3 Credit hours**

Program of readings and reports on specific areas of adult/continuing education or particular problems within an area of adult and continuing education; reading selected cooperatively with advisor.

Grade Mode: Normal Grading Mode**ACE 677 Research Method & Design ACE****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ACE 679 Problem Report****1-6 Credit hours****Grade Mode:** Normal Grading Mode**ACE 680 International Workforce Dev****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ACE 681 Thesis****1-6 Credit hours****Grade Mode:** Normal Grading Mode**ACE 685 ACE Capstone****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ACE 689 Grant Proposal Writing****3 Credit hours**

This course involves the development of a grant proposal and includes the steps required to produce a final document.

Grade Mode: Normal Grading Mode**ACE 690 Seminar****1-4 Credit hours****Grade Mode:** Normal Grading Mode**ACE 691 Seminar****1-4 Credit hours****Grade Mode:** Normal Grading Mode**ACE 692 Seminar****1-4 Credit hours****Grade Mode:** Normal Grading Mode**ACE 702 Analysis Lit Comm Tech Coll****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ACE 703 Interpret Utl App Res Tch****3 Credit hours**

Students will learn how to choose the appropriate statistics, interpret the outputs, and develop skills in writing about the meaning of the results.

Grade Mode: Normal Grading Mode**ACE 707 Professional Seminar I****1 Credit hour**

Selected topics in programs and institutional assessment related to community and technical colleges.

Grade Mode: Normal Grading Mode**ACE 708 Professional Seminar II****1 Credit hour**

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.

Grade Mode: Normal Grading Mode**ACE 709 Professional Seminar III****1 Credit hour**

Provides students an opportunity to synthesize prior course experience and to prepare and present a draft thesis prospectus.

Grade Mode: Normal Grading Mode**ACE 712 Class Asses Comm Tech Coll****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ACE 718 Ed and Employ Pre Diverse Pop****3 Credit hours**

The needs of diverse/special needs population, including youth and adults with disabilities, disadvantaged, limited English proficient, displaced workers, minorities, incarcerated, and single teen parents. Specific attention to federal legislation.

Grade Mode: Normal Grading Mode**ACE 723 Persp Strategies Teach Work Ed****3 Credit hours**

Teaching/learning process and consideration of teaching methods employed to encourage, guide, and evaluate community and technical college students' learning.

Grade Mode: Normal Grading Mode**ACE 726 Fund Plan Admin Issues CTC****3 Credit hours**

Governance and administration of the contemporary community and technical college in the United States with a focus on planning, funding, and selected administrative issues.

Grade Mode: Normal Grading Mode

ACE 781 Thesis**6 Credit hours**

Individual research in a selected field of community and technical college teaching under the direction of a graduate faculty member of the department.

Grade Mode: Normal Grading Mode

Adult & Technical Education

ATE 541 Adv Computer Applications**3 Credit hours**

To acquaint the student with advanced computer applications, which are frequently utilized by business and marketing professionals.

Grade Mode: Normal Grading Mode

ATE 544 Pract in Prevoc Explor I**3 Credit hours**

Participants make revisions to instructional units, organize a Career Exploration Club and recognize apprenticeship opportunities. (PR ATE 442/542)

Grade Mode: Normal Grading Mode

ATE 545 Career Explor & Develop**3 Credit hours**

Exploring principles and techniques for career planning and job search. An overview of strategies for gaining a competitive edge in the labor market and experiencing a successful career beginning.

Grade Mode: Normal Grading Mode

ATE 546 Pract in Prevoc Explor II**3 Credit hours**

Participants modify the 36-lesson plan project, incorporate additional "hands-on" activities, examine teaching strategies, and design activities for community involvement such as an advisory committee.

Grade Mode: Normal Grading Mode

ATE 560 Staff Development**1-4 Credit hours**

Inservice needs of school personnel. Credit may be used for certificate renewal and salary upgrading, if approved, but not in degree programs. Course titles will vary. (CR/NC Grading)

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

ATE 561 Staff Development**1-4 Credit hours**

Inservice needs of school personnel. Credit may be used for certificate renewal and salary upgrading, if approved, but not in degree programs. Course titles will vary. (CR/NC Grading)

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

ATE 562 Staff Development**1-4 Credit hours**

Inservice needs of school personnel. Credit may be used for certificate renewal and salary upgrading, if approved, but not in degree programs. Course titles will vary. (CR/NC Grading)

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

ATE 563 Staff Development**1-4 Credit hours**

Inservice needs of school personnel. Credit may be used for certificate renewal and salary upgrading, if approved, but not in degree programs. Course titles will vary. (CR/NC Grading)

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

ATE 575 Multimedia Based Instruct**3 Credit hours**

This course will assist students in designing multimedia instructional design for education and training. Focus will be on the development of web-based training programs.

Grade Mode: Normal Grading Mode

ATE 589 Grant Prop Writ Bus & Indus**3 Credit hours**

This course provides a step-by-step guide to the proposal writing process, from the initial stages of planning, to writing the first draft, to preparing the final document.

Grade Mode: Normal Grading Mode

ATE 640 Prog Design Technical Ed**3 Credit hours**

An overview of technical education history, philosophy, legislation, certification, evaluation, and operation. Comparison to academic programs to emphasize similarities and differences.

Grade Mode: Normal Grading Mode

Counseling

COUN 509 Interv:Grp Proc/Dynamics/Thrpy**3 Credit hours**

Pre-req: (COUN 500) and (COUN 507) and (COUN 551).

Grade Mode: Normal Grading Mode

COUN 515 Humanizing Ed-Person in Proces**3 Credit hours**

Study of career choice theory, career change, counseling approaches in career selection and resources to assist in career choice.

Grade Mode: Normal Grading Mode

COUN 555 Crisis Int & Conf Res**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

COUN 556 Death & Grief Counseling**3 Credit hours**

Death and dying orientation for professionals, nonprofessionals about essentials of life in its terminal stages. Presents practical, theoretical, social and psychological aspects to promote healthy, accepting attitudes.

Grade Mode: Normal Grading Mode

COUN 560 Staff Development**1-4 Credit hours**

To meet needs of school, student personnel, mental health, and other workers. Credit may be used for certificate renewal and salary upgrading, but not degree programs. Titles vary.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

COUN 561 Staff Development**1-4 Credit hours**

To meet needs of school, student personnel, mental health, and other workers. Credit may be used for certificate renewal and salary upgrading, but not degree programs. Titles vary. (CR/NR grading)

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

COUN 562 Staff Development**1-4 Credit hours**

To meet needs of school, student personnel, mental health, and other workers. Credit may be used for certificate renewal and salary upgrading, but not degree programs. Titles vary (CR/NR)

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

COUN 563 Staff Development**1-4 Credit hours**

To meet needs of school, student personnel, mental health, and other workers. Credit may be used for certificate renewal and salary upgrading, but not degree programs. Titles vary. (CR/NR grading)

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

COUN 571 Health & Wellness Couns**3 Credit hours**

Designed to help counselors deal with lifestyle issues related to physical well-being and demonstrate how health professionals can use counseling interventions in their work.

Grade Mode: Normal Grading Mode**COUN 574 Social & Cultural Found****3 Credit hours**

Recognize and use appropriate resources for effective counseling of people of different cultural, ethnic, social, class, racial, geographic, or other backgrounds. Learn when counseling is appropriate and in what form.

Grade Mode: Normal Grading Mode**COUN 575 Prev & Treat of Addict****3 Credit hours**

Course surveys assessment, diagnosis, and treatment of addiction from a bio-psycho-social perspective.

Pre-req: COUN 600 and COUN 603.**Grade Mode:** Normal Grading Mode**COUN 577 Stress Management Counseling****3 Credit hours**

Provides beginning counselors and others with comprehensive information and strategies for successful management of stress and its consequences. Students explore theoretical and practical alternatives in counseling the stressed individual.

Grade Mode: Normal Grading Mode**COUN 579 Pharmacology in Counseling****3 Credit hours**

Provides basic understanding of the role of therapeutic drugs in the treatment of psychiatric disorders, familiarize with most commonly used drugs, side effects, and adverse reactions in specific mental illness. (PR: COUN 600 & 601)

Grade Mode: Normal Grading Mode**COUN 580 Special Topics****1-4 Credit hours**

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)

Grade Mode: Normal Grading Mode**COUN 581 Special Topics****1-4 Credit hours**

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)

Grade Mode: Normal Grading Mode**COUN 582 Special Topics****1-4 Credit hours**

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)

Grade Mode: Normal Grading Mode**COUN 583 Special Topics****1-4 Credit hours**

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)

Grade Mode: Normal Grading Mode**COUN 585 Independent Study****1-4 Credit hours**

Individual or group study and research of various issues and fields of emphasis in counseling. (PR: Consent)

Grade Mode: Normal Grading Mode**COUN 586 Independent Study****1-4 Credit hours**

Individual or group study and research of various issues and fields of emphasis in counseling. (PR: Consent)

Grade Mode: Normal Grading Mode**COUN 600 Professional Orientation****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**COUN 601 Counsel Consulting Roles****3 Credit hours**

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 focus upon case applications and presentations. (PR: COUN 600 and 607)

Grade Mode: Normal Grading Mode**COUN 602 Human Devel and Adjustment****3 Credit hours**

The course will explore human growth and 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: COUN 600 and 603)

Grade Mode: Normal Grading Mode**COUN 603 Counseling Theories****3 Credit hours**

Survey of classical and contemporary counseling philosophies, history, and techniques as related to interpersonal relationships in the counseling process.

Pre-req: COUN 574 and COUN 600 and COUN 602 and EDF 621.**Grade Mode:** Normal Grading Mode**COUN 604 Group Coun & Tech****3 Credit hours**

Group dynamics, processes, counseling and consulting: includes theories, practices, methods, dynamics, facilitative skills, and supervised practice. (PR: COUN 574, 600, 602, EDF 621 or COUN 609)

Pre-req: COUN 574 with a minimum grade of D and COUN 600 with a minimum grade of D and COUN 602 with a minimum grade of D and (EDF 621 with a minimum grade of D or COUN 609 with a minimum grade of D).

Grade Mode: Normal Grading Mode**COUN 605 Theory Prac Human Appr****3 Credit hours**

Provide an understanding of 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 or COUN 609)

Pre-req: COUN 574 with a minimum grade of D and COUN 600 with a minimum grade of D and COUN 602 with a minimum grade of D and (EDF 621 with a minimum grade of D or COUN 609 with a minimum grade of D).

Grade Mode: Normal Grading Mode**COUN 606 Career & Lifestyle Develop****3 Credit hours**

A study of career development theories and decision-making models that impact career development and related life factors.

Pre-req: COUN 603 and COUN 604 and COUN 605 and COUN 607.**Grade Mode:** Normal Grading Mode

- COUN 607 Coun Tech & Human Relat** **3 Credit hours**
 Course focuses on learning and practicing individual counseling techniques from various theoretical perspective. Emphasis on basic interviewing, assessment, and counseling skills that facilitate the helping process. (PR: COUN 574, COUN 600)
Pre-req: COUN 574 with a minimum grade of D and COUN 600 with a minimum grade of D.
Grade Mode: Normal Grading Mode
- COUN 608 Practicum** **3 Credit hours**
 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: Consent. Students must have achieved a minimum grade of B in 606, 607, and EDF 621 or 625)
Pre-req: COUN 603 and COUN 604 and COUN 605 and COUN 607.
Grade Mode: Credit/No Credit Grade Only
- COUN 609 Research in Counseling** **3 Credit hours**
 Course provides the foundation of research methods including qualitative, quantitative and mixed methods. Students will also gain a fundamental understanding of basic statistical concepts.
Grade Mode: Normal Grading Mode
- COUN 611 Foundations Comm Coun** **3 Credit hours**
 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 procedures will be emphasized. (PR: COUN 603)
Grade Mode: Normal Grading Mode
- COUN 612 Int-Superv Field Placement K-8** **3 Credit hours**
Pre-req: CR 599 and EDF 517 and EDF 621.
Grade Mode: Normal Grading Mode
- COUN 613 Int-Suprv Field Placement 5-12** **3 Credit hours**
Pre-req: CR 599.
Grade Mode: Normal Grading Mode
- COUN 616 Domestic Violence** **1-3 Credit hours**
 An introduction to the epidemiology, dynamics, clinical interventions and treatment of domestic violence.
Pre-req: (COUN 603).
Grade Mode: Normal Grading Mode
- COUN 617 Seminar in Counseling** **3 Credit hours**
 Investigations in current problems of counseling agencies; content determined by needs of student.
Pre-req: CR 548 and CR 599.
Attributes: No Textbook Required
Grade Mode: Normal Grading Mode
- COUN 620 Workshop in Counseling** **1-6 Credit hours**
 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)
Grade Mode: Normal Grading Mode
- COUN 621 Intro to Child Abuse & Neglect** **1 Credit hour**
 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 and 603)
Pre-req: (COUN 600 and COUN 603) or CR 614.
Grade Mode: Normal Grading Mode
- COUN 622 Family Education** **3 Credit hours**
 Study of family education skills training for conducting family education groups and parent training. .
Grade Mode: Normal Grading Mode
- COUN 628 FAMILY THERAPY IMMERSION** **3 Credit hours**
- COUN 630 Intro to Ment Health Coun** **3 Credit hours**
 Provides an overview of key functions of the clinical mental health counselor. Areas covered include: ethical decision making, professional identity, theory development, assessment, and diagnosis (PR: COUN 574, 600, 603, 604, 631)
Pre-req: COUN 574 with a minimum grade of D and COUN 600 with a minimum grade of D and COUN 603 with a minimum grade of D and COUN 604 with a minimum grade of D and COUN 631 with a minimum grade of D.
Grade Mode: Normal Grading Mode
- COUN 631 Diag & Treatment Planning** **3 Credit hours**
 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 630)
Pre-req: COUN 600 and COUN 603 and COUN 607.
Grade Mode: Normal Grading Mode
- COUN 632 Intro Mar/Coup & Fam Coun** **3 Credit hours**
 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. (PR: COUN 600)
Pre-req: COUN 600 with a minimum grade of D.
Grade Mode: Normal Grading Mode
- COUN 635 Core Funct Addiction Coun** **3 Credit hours**
 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)
Grade Mode: Normal Grading Mode
- COUN 636 Couple Counseling** **3 Credit hours**
 This course is designed to introduce students to a variety theoretical concepts, techniques, and their application in the therapeutic setting. Emphasis is on basic interviewing, assessment, and counseling skills that facilitate the helping process through integration of various theoretical orientations.
Grade Mode: Normal Grading Mode
- COUN 637 Adult/Family Dev & Transition** **3 Credit hours**
Grade Mode: Normal Grading Mode
- COUN 638 Interven: Mar/Coup/Fam Coun** **3 Credit hours**
 An intensive practical experience in marriage, couples, and family therapy techniques to prepare the student to enter the supervised internship of the program. (PR: Students must have achieved a minimum grade of B in COUN 637)
Grade Mode: Normal Grading Mode
- COUN 639 Psychotheological Issues** **3 Credit hours**
 Specialization course offering topics germane to the concerns of Mental-Health workers, pastoral counselors, stress involved in counseling in religious settings.
Grade Mode: Normal Grading Mode

COUN 640 Sem Spirituality in Coun 3 Credit hours

Seminar will view spirituality across many Religious traditions. The seminar interweaves spiritual bases and spiritual growth in counseling to better understand responsibility for actions and emotions.

Grade Mode: Normal Grading Mode

COUN 641 Correction Coun Seminar 1-9 Credit hours

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)

Pre-req: COUN 600 and COUN 603 or CR 614.

Grade Mode: Normal Grading Mode

COUN 646 Correctn Coun: Client Advocacy 3 Credit hours

Techniques of collecting, recording & interpreting data.

Grade Mode: Normal Grading Mode

COUN 648 LEG/ETHIC/PROF ISSUES-MAR/FAMI 3 Credit hours

Psychological foundations of personality development with emphasis on principles of mental health as related to problems of everyday living.

Grade Mode: Normal Grading Mode

COUN 650 Seminar Career Coun 3 Credit hours

Counseling tools and techniques with emphasis on problem categories and patterns as related to the psychology of individual differences.

Pre-req: CR 599 and CR 548 and CR 614.

Grade Mode: Normal Grading Mode

COUN 651 Seminar Career Coun 3 Credit hours

Practical experiences in counseling under professional supervision.

Grade Mode: Normal Grading Mode

COUN 652 Career Coun Spec Populations 3 Credit hours

Post-Master's Internship designated to fulfill the requirement for State certification as a school counselor. Not offered in summer terms.

Pre-req: (COUN 500) and (COUN 507).

Grade Mode: Normal Grading Mode

COUN 653 Career Asses Tech & Rept 3 Credit hours

Supervised on-the-job experience in Agency Counseling. Supervised on-the-job experiences in counseling.

Pre-req: CR 672 and CR 651.

Grade Mode: Normal Grading Mode

COUN 654 Family Violence 3 Credit hours

The course will examine violence in families, covering ages from infancy to elder adulthood with a focus on variations in types of assault, violence, and abuse found within, among, or pertaining to family members across all ages.

Grade Mode: Normal Grading Mode

COUN 655 Coun Victims Dom Violence 3 Credit hours

This 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.

Grade Mode: Normal Grading Mode

COUN 656 DVIII: Children as Victims 3 Credit hours

This course will address issues related to the cognitive, behavioral, and emotional problems of children who are primary victims or witness of domestic violence, and explore appropriate interventions.

Pre-req: CR 661 and CR 651.

Grade Mode: Normal Grading Mode

COUN 657 DVI: Working with Victims 3 Credit hours

The course will focus on victim dynamics, diagnostic indicators that victims may present without revealing abuse, and treatment interventions that focus on victim strengths and empowerment.

Grade Mode: Normal Grading Mode

COUN 658 Community Response to DV 3 Credit hours

This course will examine community systems and best practices associated with a centralized approach to victim and child safety and batterer accountability.

Pre-req: CR 613 and CR 651.

Grade Mode: Normal Grading Mode

COUN 660 Intro to Student Affairs 3 Credit hours

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.

Pre-req: CR 548 and CR 599 and COUN 603.

Grade Mode: Normal Grading Mode

COUN 662 Current Issues in Stu Affairs 3 Credit hours

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)

Pre-req: COUN 603 and COUN 607.

Grade Mode: Normal Grading Mode

COUN 663 Adv Seminar in Coun Theory 3 Credit hours

Pre-req: (COUN 509).

Grade Mode: Normal Grading Mode

COUN 665 Community Resources 3 Credit hours

Pre-req: (COUN 500) and (COUN 507).

Grade Mode: Normal Grading Mode

COUN 668 LEGAL/ETHIC ASP COUNS & STU PE 3 Credit hours**COUN 669 Independent Study 1-6 Credit hours**

Grade Mode: Normal Grading Mode

COUN 670 Interv Current Issues Sch 3 Credit hours

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)

Pre-req: (COUN 600 and COUN 603) or CR 614.

Grade Mode: Normal Grading Mode

COUN 671 Voc Coun in the Schools 3 Credit hours

A basic course for the community agency counselor, this course will introduce the student to: Diagnostics, based on the DSM III, Records, Report Writing, Ethics, and Law. (Core courses or permission)

Pre-req: CR 548 and CR 599.

Grade Mode: Normal Grading Mode

COUN 672 Org & Admin of Sch Coun Prog 3 Credit hours

Provides students with a comprehensive view of community agency program management. The full range of community agencies and the services they provide will be examined and discussed.

Pre-req: COUN 670.

Grade Mode: Normal Grading Mode

COUN 673 Coun Child Adol Parents**3 Credit hours**

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 and 603)

Pre-req: COUN 600 and COUN 603.**Grade Mode:** Normal Grading Mode**COUN 674 Observe Sch Environment****3 Credit hours**

Introduction to the roles and functions of school pupil personnel professionals (general classrooms, exceptional student environments, support staff and administration), models of operation, problems, issues, and techniques. The organization and administration of school systems and philosophy of general and special education are considered. Students will spend a minimum of one-half day a week observing in K through 12 schools.

Grade Mode: Normal Grading Mode**COUN 675 Leg/Ethical Issues for Coun****3 Credit hours**

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 counseling; an overview of international, national, regional and state legal and ethical cases effecting the field of 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).

Pre-req: COUN 600 and COUN 603.**Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**COUN 682 Tr in Trauma Recovery****3 Credit hours**

This course explores types of trauma experience in modern society, the inter- and intrapersonal effects those types of trauma on clients, and an introduction to treatment modalities and evidence based practice.

Pre-req: COUN 555.**Grade Mode:** Normal Grading Mode**COUN 683 Psychophys of Trauma****3 Credit hours**

This course explores effects of trauma on the central nervous system, psychomotor abilities and physiological and emotional responses to trauma, PTSD, traumatic injury.

Pre-req: COUN 682.**Grade Mode:** Normal Grading Mode**COUN 684 Treating Complex Trauma & Loss****3 Credit hours**

This course focuses on the treatment of complex trauma and loss, through investigation of trauma theory, phases of post-traumatic recovery, evidence-based treatment, and practice implications for complex cases. (PR: COUN 556 and COUN 682)

Pre-req: COUN 556 with a minimum grade of C and COUN 682 with a minimum grade of C.**Grade Mode:** Normal Grading Mode**COUN 685 Military Cult & Treat Vets****3 Credit hours**

This course is designed to introduce students to the nature of military culture, the unique challenges of deployment and re-entry for both military personnel and their families, and various mental health best practices specific to those affected with combat-related PTSD, TBI, and other traumatic injury.

Pre-req: COUN 682.**Grade Mode:** Normal Grading Mode**COUN 686 Trauma and Suffering****3 Credit hours**

This course focuses on existential suffering caused by traumatic stress, and the counseling needs of affected individuals. It explores the nature of swelling, as well as a variety of philosophical, religious, and theoretical approaches to suffering. The course presents best practices for clinical approaches within professional counseling.

Pre-req: COUN 556 and COUN 682.**Grade Mode:** Normal Grading Mode**COUN 691 Intern Mental Health Coun****3-6 Credit hours**

Internship in Clinical Mental Health Counseling. CR/NC. 3-6 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)

Pre-req: COUN 608 and COUN 631.**Attributes:** No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**COUN 692 Intern Community Counseling****1-6 Credit hours**

Supervised experience in community counseling.

Pre-req: COUN 608 and COUN 631.**Grade Mode:** Normal Grading Mode**COUN 693 Internship Marr & Fam Coun****3-6 Credit hours**

Internship in Marriage and Family Counseling. CR/NC. 3-6 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 with grade of CR and minimum grade of B in COUN 638).

Pre-req: (COUN 608 and COUN 631) or CR 614.**Grade Mode:** Credit/No Credit Grade Only**COUN 695 Intern in Correct Coun****3-6 Credit hours**

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)

Pre-req: (COUN 608 and COUN 641) or CR 614.**Grade Mode:** Credit/No Credit Grade Only**COUN 696 Intern Career Coun****3-6 Credit hours**

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)

Grade Mode: Normal Grading Mode**COUN 697 Internship Student Aff Coun****3-6 Credit hours**

Supervised experience in career counseling. Participation in seminars on specified topics. Minimum 100 clock hours for each semester hour credit. (PR: COUN 608 and 652 with a minimum grade of B or permission.)

Grade Mode: Normal Grading Mode**COUN 698 Internship in School Coun****3-6 Credit hours**

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, 670, 672, 675).

Pre-req: COUN 608 with a minimum grade of D and COUN 670 with a minimum grade of D and COUN 672 with a minimum grade of D and COUN 675 with a minimum grade of D.**Grade Mode:** Credit/No Credit Grade Only

COUN 740 Internship**1-12 Credit hours**

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. Instructor will indicate in course syllabus whether class is letter graded or S/U. (PR: Consent)

Pre-req: (COUN 611) or (COUN 612) or (COUN 613) or (COUN 614) or (COUN 615) or (COUN 616).

Grade Mode: Credit/No Credit Grade Only

COUN 741 Prof Devel & Advocacy**3 Credit hours**

This course prepares professional counselors for community leadership roles related to client advocacy in multicultural settings, current political trends, theories of social change, social justice, and advocacy planning.

Grade Mode: Normal Grading Mode

COUN 742 Current Issues in School Couns**3 Credit hours**

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)

Pre-req: (COUN 509) and (ED 501) and (PSYC 584).

Grade Mode: Normal Grading Mode

COUN 746 Systems Intervention**3 Credit hours**

Examination of the major systems which may require intervention by a supervisor of counselors and training in effective intervention strategies. (PR: Consent)

Pre-req: (COUN 612) or (COUN 613).

Grade Mode: Normal Grading Mode

COUN 747 Adv Group Counseling**3 Credit hours**

The application of counseling theories in group settings, including supervised group leadership experiences. (PR: Consent)

Grade Mode: Normal Grading Mode

COUN 750 Seminar**1-6 Credit hours**

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 or S/U. (PR: Consent)

Pre-req: COUN 608 or COUN 603G or CR 614.

Grade Mode: Normal Grading Mode

COUN 755 Models of Counselor Supervision**3 Credit hours**

A survey of theoretical approaches and techniques counseling supervision. Emphasis is placed on supervision of counselors in various settings. (PR: Consent)

Pre-req: (COUN 612) or (COUN 613).

Grade Mode: Normal Grading Mode

COUN 756 Residency in Counselor Supervision**6 Credit hours**

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)

Grade Mode: Normal Grading Mode

COUN 760 Special Topics**1-6 Credit hours**

Study, reading, and research in specialized areas of counseling, human relations, guidance or other special The Master of Arts

Grade Mode: Normal Grading Mode

Curriculum Instruction Deaf/Hard of Hearing**CIDH 501 American Sign Language I****3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CIDH 502 American Sign Language II**3 Credit hours**

For professionals serving deaf/hard of hearing (D/HH) individuals. Includes deaf culture, functional language and legal issues in deaf education. (PR: CIDH 501)

Pre-req: CIDH 501.

Grade Mode: Normal Grading Mode

CIDH 503 American Sign Language III**3 Credit hours**

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. (PR: CIDH 502)

Pre-req: CIDH 502.

Grade Mode: Normal Grading Mode

CIDH 504 Auditory Habilitation**3 Credit hours**

Course will consist of lecture, demonstration, discussion, & 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. (PR: Instructor Consent)

Grade Mode: Normal Grading Mode

CIDH 505 Intro Deaf & Hard of Hearing**3 Credit hours**

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. (PR: Instructor Consent)

Grade Mode: Normal Grading Mode

CIDH 506 Curr & Meth Deaf/Hard of Hear**3 Credit hours**

Study of curriculum, methods, techniques and materials used in the education of deaf/hard of hearing students. Includes information on classroom organization, classroom management.

Grade Mode: Normal Grading Mode

CIDH 601 Teach Intern & Pract I**3 Credit hours**

This course represents a residential placement in which the student works with deaf and hard of hearing students in a classroom under the direction of a licensed teacher. (PR: Instructor Consent)

Grade Mode: Credit/No Credit Grade Only

CIDH 602 Tech Intern & Pract II**3 Credit hours**

This course represents a residential placement in which the student works with deaf and hard of hearing students in a classroom under the direction of a licensed teacher. (PR: Instructor Consent)

Grade Mode: Credit/No Credit Grade Only

CIDH 607 Dev & Remed of Rdg/Writ/Disc**3 Credit hours**

Pre-req: CIDH 505.

Grade Mode: Normal Grading Mode

Curriculum Instruction Educational Computing

CIEC 534 Appli Software Class Curr Area

3 Credit hours

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.

Grade Mode: Normal Grading Mode

CIEC 560 Staff Development

1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIEC 561 Staff Development

1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIEC 562 Staff Development

1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIEC 563 Staff Development

1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIEC 564 Staff Development

1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIEC 580 Special Topics

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIEC 581 Special Topics

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIEC 582 Special Topics

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIEC 583 Special Topics

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIEC 585 Independent Study

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIEC 586 Independent Study

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIEC 587 Independent Study

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIEC 588 Independent Study

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIEC 591 Workshop

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIEC 592 Workshop

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIEC 593 Workshop

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIEC 594 Workshop

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIEC 600 Instructional Design & Tech

3 Credit hours

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).

Grade Mode: Normal Grading Mode

CIEC 610 Local Area Net/Telecom in Sch

3 Credit hours

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)

Grade Mode: Normal Grading Mode

CIEC 615 Online Course Devel/Delivery

3 Credit hours

This course offers participants the opportunity to explore strategies and issues related to the development and delivery of online courses.

Grade Mode: Normal Grading Mode

CIEC 620 Software Eval & Selection

3 Credit hours

In-depth evaluation of software based on student-developed criteria. (PR: CIEC 600 or equivalent)

Grade Mode: Normal Grading Mode

CIEC 630 Authoring Systems & Multimedia

3 Credit hours

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.

Grade Mode: Normal Grading Mode

CIEC 635 Using Internet in Classroom

3 Credit hours

This course provides an introduction to the Internet, with an emphasis on the World Wide Web and its potential uses for teaching and learning.

Grade Mode: Normal Grading Mode

CIEC 660 Computers in Instruction

3 Credit hours

This course is designed for inservice teachers who are familiar with the "BASIC programming" language and who wants to learn how the microcomputer can be utilized in a content area. (PR: CI 530)

Grade Mode: Normal Grading Mode

CIEC 699 Final Project in Curr Area

3 Credit hours

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)

Grade Mode: Normal Grading Mode

CIEC 700 Technology and Curriculum

3 Credit hours

This course provides an overview of current issues related to technology in education while also providing participants with the opportunity to improve personal technology skills and use.

Grade Mode: Normal Grading Mode

Curriculum & Instruction Math Education

CIME 500 Math for the Elem Teach I

3 Credit hours

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.

Grade Mode: Normal Grading Mode

CIME 501 Math for the Elem Tchr II

3 Credit hours

Continuation of CIME 500. Continuation of CIME 500. (PR: CIME 500)

Grade Mode: Normal Grading Mode

CIME 555 Technical Math for Math Educa

3 Credit hours

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. This course will cover the objectives of applied and technical preparation mathematics for teachers, with an emphasis on methodologies appropriate for those students who are likely to comprise these classes.

Grade Mode: Normal Grading Mode

CIME 556 Finite Math for Math Educa

3 Credit hours

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. This course will cover the methods and objectives of business and technical preparation mathematics courses with an emphasis on teaching methodologies appropriate for those students who are likely to comprise these classes

Grade Mode: Normal Grading Mode

CIME 560 Staff Development

1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIME 561 Staff Development

1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIME 562 Staff Development

1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIME 563 Staff Development

1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIME 564 Staff Development

1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIME 580 Special Topics

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 581 Special Topics

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 582 Special Topics

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 583 Special Topics

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 584 Special Topics

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 585 Independent Study

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 586 Independent Study

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 587 Independent Study

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 588 Independent Study

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 591 Workshop

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 592 Workshop

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 593 Workshop

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 594 Workshop

1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 650 Algebra for Math Educator

3 Credit hours

Specialized mathematical knowledge for teaching: An in-depth study of topics typically found in a college algebra course.

Grade Mode: Normal Grading Mode

CIME 657 Precalculus for Math Educa

3 Credit hours

Specialized mathematical knowledge for teaching: A study of advanced algebraic structures and functions of change, including an introduction to calculus.

Grade Mode: Normal Grading Mode

CIME 658 Geometry for Math Educator

3 Credit hours

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.

Grade Mode: Normal Grading Mode

CIME 670 Teaching Mathematics

3 Credit hours

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.

Grade Mode: Normal Grading Mode

CIME 673 Elem Math Methds Practice K-6 3 Credit hours

Culmination course that provides a setting for examining research-based elementary math methods and leadership, and a supervised practicum teaching experience in an educational field-based environment.

Pre-req: CIME 500 and CIME 501 and CIME 555 and CIME 650 and CIME 658.

Grade Mode: Normal Grading Mode

CIME 675 Superv Field Prac/Math 5-12 3 Credit hours

Supervised practicum in which the student demonstrates and is assessed in mathematics teaching skills in a clinical setting in grades 5-9.

Grade Mode: Credit/No Credit Grade Only

CIME 677 Superv Field Pract/Math 5-12 3 Credit hours

Supervised practicum in which the student demonstrates and is assessed in mathematics teaching skills in a clinical setting in grades 9-12.

Grade Mode: Credit/No Credit Grade Only

Curriculum & Instruction Reading Education

CIRG 509 Rdg Recovery Theor Concerns 6 Credit hours

Grade Mode: Normal Grading Mode

CIRG 560 Staff Development 1-4 Credit hours

Courses and activities designed to meet the inservice needs of public school personnel. Credit in these courses may be used for renewal and salary upgrades if approved, but may not be used for degree programs. CR\NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIRG 561 Staff Development 1-4 Credit hours

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 degree programs. CR\NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIRG 562 Staff Development 1-4 Credit hours

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 degree programs. CR\NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIRG 563 Staff Development 1-4 Credit hours

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 degree programs. CR\NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIRG 564 Staff Development 1-4 Credit hours

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 degree programs. CR\NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIRG 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 581 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 582 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 583 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 585 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 586 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 587 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 588 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 601 Prof Guid Lit Spec 3 Credit hours

Professional guidance for the Literacy Specialist is an elective course for candidates in the Master's in Reading Education. It supports the program's assessment

Grade Mode: Credit/No Credit Grade Only

CIRG 610 Multimodal Literacy 3 Credit hours

This graduate class examines the theories, processes, and strategies of multi-modal classroom literacy. Intended for literacy specialists, the course investigates relevant theory, research, and practical applications to classroom literacy.

Grade Mode: Normal Grading Mode

CIRG 613 Children's Literature 3 Credit hours

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.

Grade Mode: Normal Grading Mode

CIRG 614 Rdg 9-Adult Lit Skill Dev 3 Credit hours

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.

Grade Mode: Normal Grading Mode

CIRG 615 Writing in Literacy Curriculum 3 Credit hours

Examine, develop, implement and evaluate traditional and electronic writing within a balanced literacy framework.

Grade Mode: Normal Grading Mode

CIRG 616 Lang Structures 3 Credit hours

This graduate class examines an approach to spelling instruction based on an understanding of English orthography and the way students develop as sellers, readers, and writers.

Grade Mode: Normal Grading Mode

CIRG 621 Curr Issues & Prob Reading 3 Credit hours

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)

Pre-req: CIRG 654.

Grade Mode: Normal Grading Mode

CIRG 622 Literacy Technology**3 Credit hours**

Candidates will plan for literacy instruction and use literacy technology in their classrooms. Emphasis will be given to the Internet and educational software.

Grade Mode: Normal Grading Mode

CIRG 623 Lit Facilitator Pract**3 Credit hours**

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.

Pre-req: CIRG 654.

Grade Mode: Normal Grading Mode

CIRG 636 Developmental Reading**3 Credit hours**

Principles and practices of teaching developmental reading.

Grade Mode: Normal Grading Mode

CIRG 637 Literacy Assessment**3 Credit hours**

Study and the causes of reading difficulties, devices and techniques, and remedial methods and materials. (PR: CIRG 636 and 644)

Grade Mode: Normal Grading Mode

CIRG 642 Special Needs in Reading**3 Credit hours**

Study of research findings, methodology and instructional materials for atypical learners, illiterate adults and others.

Pre-req: CIRG 654.

Grade Mode: Normal Grading Mode

CIRG 643 Tch Strug Readers Practicum**3 Credit hours**

Clinical experiences in the diagnosis and corrective treatment of reading disabilities. (PR: CIRG 654)

Pre-req: CIRG 654.

Grade Mode: Normal Grading Mode

CIRG 644 Literacy in the Content Area**3 Credit hours**

Principles underlying the teaching of reading in the content fields.

Grade Mode: Normal Grading Mode

CIRG 651 Prin of Family Literacy**3 Credit hours**

This course examines different family literacy programs and anchors the literacy needs of family members in what is know about linguistic, cognitive, and literacy development.

Grade Mode: Normal Grading Mode

CIRG 652 Develop/Eval Fam Lit Prog**3 Credit hours**

This is a development and evaluation course in family literacy intended for active practitioners.

Grade Mode: Normal Grading Mode

CIRG 653 Literacy Acquisition**3 Credit hours**

Literacy acquisition is a foundation course open to professionals whose interests require understanding of the process involved in becoming literate.

Grade Mode: Normal Grading Mode

CIRG 654 Aligning Assess with Instruct**3 Credit hours**

Experiences in analyzing diagnostic test results, preparing diagnostic reports, and selecting appropriate materials and procedures to meet specific reading needs. (PR: CIRG 637)

Pre-req: (CIRG 637 and CIRG 636 and CIRG 622 and CIRG 615 and CIRG 644 and CIRG 653).

Grade Mode: Normal Grading Mode

CIRG 701 Seminar I**3 Credit hours**

An investigation of research in reading that has made a difference in education, pupil achievement in reading, the role of reading, and role of the reading specialist. (PR: Master's degree, consent of instructor)

Grade Mode: Normal Grading Mode

CIRG 702 Seminar II**3 Credit hours**

An examination of research that has the potential to bring about changes in reading education and school curriculum.

Grade Mode: Normal Grading Mode

CIRG 703 Reading Tests & Techniques**3 Credit hours**

An examination of research related to the development of reading and reading-related diagnostic procedures. A detailed study will be made of standardized tests, the Informal Reading Inventory (IRI) and other similar diagnostic measures and competency-based instruments.

Grade Mode: Normal Grading Mode

CIRG 704 Advanced Instructional Tech**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CIRG 705 Applied Research**3-6 Credit hours**

Planning and implementing a study investigating aspects of reading theory. The study will necessitate deriving empirical data under field conditions.

Grade Mode: Normal Grading Mode

CIRG 706 Applied Research**3-6 Credit hours**

Planning and implementing a study investigation aspects of reading theory. The study will necessitate deriving empirical data under field conditions.

Grade Mode: Normal Grading Mode

CIRG 707 Issues in Reading**3 Credit hours**

A review of trends and issues in reading education focusing on the complexity of the reading process.

Grade Mode: Normal Grading Mode

CIRG 708 Phil & Hist of Reading Educa**3 Credit hours**

A study of the philosophical foundation of current reading programs. This course will review the historical background and progress in reading education.

Grade Mode: Normal Grading Mode

CIRG 709 Inservice: Aspect of Rdng Ed**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CIRG 710 Independent Study**3 Credit hours**

Individualized study of advanced topics in reading.

Grade Mode: Normal Grading Mode

Curriculum & Instruction Science Education

CISE 560 Staff Development**1-4 Credit hours**

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 degree programs. CR\NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CISE 561 Staff Development**1-4 Credit hours**

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 degree programs. CR\NC grading.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**CISE 562 Staff Development****1-4 Credit hours**

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 degree programs. CR\NC grading.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**CISE 563 Staff Development****1-4 Credit hours**

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 be used for degree programs. CR/NC grading.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**CISE 564 Staff Development****1-4 Credit hours**

Courses and activities designed to meet 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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**CISE 570 Flora & Fauna K-9****3 Credit hours**

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 flora and fauna that live here.

Grade Mode: Normal Grading Mode**CISE 571 Dev Thematic Sci Elem/Mdle Sch****3 Credit hours**

A study of the strategies and techniques needed to plan, implement and evaluate a thematic, coordinated, and integrated science program in the schools.

Grade Mode: Normal Grading Mode**CISE 572 Environ Ed Elem/Mdle Sch Tchr****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CISE 573 Chem for Elem/Middle School****3 Credit hours**

A study of the fundamental principles of chemistry focusing on developmentally appropriate methods, strategies and techniques to assist with concept development and attainment.

Grade Mode: Normal Grading Mode**CISE 574 Integrated Sci for Elem Sch****3 Credit hours**

Study an application of the concepts and activities included in an integrated science program for the elementary school.

Grade Mode: Normal Grading Mode**CISE 575 Integrated Sci/Middle School****3 Credit hours**

Study and applications of the concepts and activities included in an integrated science program for the middle school.

Grade Mode: Normal Grading Mode**CISE 576 Phy Wave Phen & Elect K-9****3 Credit hours**

A study of the fundamental principals of physics focusing on wave phenomena and electricity for the elementary/ middle school teacher.

Grade Mode: Normal Grading Mode**CISE 577 Physics: Energy & Matter K-9****3 Credit hours**

A study of the fundamental principles of physics focusing on energy and matter for elementary and middle school teachers.

Grade Mode: Normal Grading Mode**CISE 580 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISE 581 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISE 582 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISE 583 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISE 585 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISE 586 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISE 587 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISE 588 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISE 591 Workshop****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISE 592 Workshop****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISE 593 Workshop****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISE 594 Workshop****1-4 Credit hours****Grade Mode:** Normal Grading Mode

Curriculum & Instruction Second Language

CISL 550 Second Language Acquisition**3 Credit hours**

This course examines current theories of second language acquisition and their implications for second language teaching and learning.

Grade Mode: Normal Grading Mode**CISL 551 Linguistics for ESL****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CISL 552 Intercultural Comm/ESL****3 Credit hours**

This courses focuses on the interrelationship of language and culture and includes analyses of world cultures, with literature and the arts as bridges. Participants develop teaching materials for ESL classrooms.

Grade Mode: Normal Grading Mode**CISL 555 Practicum for ESL****3 Credit hours**

A culminating practicum that involves participation in ESL curriculum evaluation and development.

Pre-req: CISL 554.**Grade Mode:** Credit/No Credit Grade Only

CISL 560 Staff Development 1-4 Credit hours**Grade Mode:** Credit/No Credit Grade Only**CISL 561 Staff Development 1-4 Credit hours****Grade Mode:** Credit/No Credit Grade Only**CISL 562 Staff Development 1-4 Credit hours****Grade Mode:** Credit/No Credit Grade Only**CISL 563 Staff Development 1-4 Credit hours****Grade Mode:** Credit/No Credit Grade Only**CISL 564 Staff Development 1-4 Credit hours****Grade Mode:** Credit/No Credit Grade Only**CISL 653 Methods ESL:Language 3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CISL 654 Methods ESL: Literacy 3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CISL 655 Practicum for ESL 3 Credit hours**

A culminating practicum that involves participation in ESL curriculum evaluation and development.

Grade Mode: Credit/No Credit Grade Only

Curriculum Instruction Special Education

CISP 510 Instructional Prac/Excep Child 3 Credit hours

An introductory course on applied planning and instructional approaches for the exceptional child. The course will introduce students to validated classroom practices for the beginning classroom teacher.

Grade Mode: Normal Grading Mode**CISP 520 Intro to Exceptional Child 3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CISP 521 Child w Exceptionalities 3 Credit hours**

Behavioral characteristics of children with exceptional development, dynamics of family-community interaction, and attitudes toward exceptional conditions. Implications for amelioration and educational planning. (Not for Special Education majors)

Grade Mode: Normal Grading Mode**CISP 526 Introduction to Gifted 3 Credit hours**

An overview of giftedness in children, definitions, etiology, observable characteristics and implications for educational agencies.

Grade Mode: Normal Grading Mode**CISP 527 Introduction to Autism 3 Credit hours**

This is an online course designed to survey current issues in the education and treatment of students with autism spectrum disorder (ASD). The course is the first in a two-course sequence that leads to the WV Autism Teaching Endorsement.

Grade Mode: Normal Grading Mode**CISP 529 Intro to Develop Disabilities 3 Credit hours**

Introduction to the characteristics and needs of young children with developmental disabilities addressing the physical, neurological, health, and environmental problems that impact atypical grown and development.

Grade Mode: Normal Grading Mode**CISP 535 Gen Spec Ed Programming 3 Credit hours**

Address the educational/curricular needs of students with mild learning problems in the categorical areas of mental retardation, behavior disorders, and specific learning disabilities. (PR: CI 320/520 and 433/533 or 423/523 or 424/524 or permission of instructor)

Grade Mode: Normal Grading Mode**CISP 553 Characteristics Methods ID 3 Credit hours**

Characteristics and effective instructional strategies appropriate for students with intellectual disabilities are considered. Emphasis will be on evidence and research based practices to address academic achievement and functional performance.

Pre-req: CISP 520.**Grade Mode:** Normal Grading Mode**CISP 554 Families of Except Students 3 Credit hours**

Principles and information designed to give the student an understanding of the needs and rights of parents of exceptional children and techniques to involve parents successfully in their child's education.

Grade Mode: Normal Grading Mode**CISP 560 Staff Development 1-4 Credit hours**

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**CISP 561 Staff Development 1-4 Credit hours**

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**CISP 562 Staff Development 1-4 Credit hours**

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**CISP 563 Staff Development 1-4 Credit hours**

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only

CISP 564 Staff Development	1-4 Credit hours	CISP 607 Math Strat Except Students	3 Credit hours
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 degree programs. CR/NC grading.		Examines mathematics curriculum, methods, and adapted materials for students with mild to moderate disabilities in K-12 classrooms. Emphasizes strategies for accessing the general education curriculum, higher-level courses, and technology.	
Attributes: Not Degree Applicable		Grade Mode: Normal Grading Mode	
Grade Mode: Credit/No Credit Grade Only		CISP 611 Special Ed Research I	3 Credit hours
CISP 580 Special Topics	1-4 Credit hours	The study of problems related to the area of exceptionality receiving emphasis in the student's degree program. (PR: CI 603, 649, 651 or 674, EDF 621 or 625)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CISP 581 Special Topics	1-4 Credit hours	CISP 615 Special Ed Research II	3 Credit hours
Grade Mode: Normal Grading Mode		As a part of the requirements for this course, the student will submit a written, bound document, which will be added to the college library collection. (PR: CISP 611)	
CISP 582 Special Topics	1-4 Credit hours	Pre-req: CISP 611.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CISP 583 Special Topics	1-4 Credit hours	CISP 626 Diagnostic-Clin Practices	3 Credit hours
Grade Mode: Normal Grading Mode		Collaborative/consultative multi-disciplinary and curriculum-based assessment process and their use in developing appropriate interventions linking instruction to content standards and objectives. Team approach to diagnosis and treatment of exceptional children. (PR: CISP 520)	
CISP 585 Independent Study	1-4 Credit hours	Pre-req: (CI 520 or CISP 520) or (CI 521 or CISP 521).	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CISP 586 Independent Study	1-4 Credit hours	CISP 627 Issues Special Education	3 Credit hours
Grade Mode: Normal Grading Mode		An in-depth look at current issues effecting all areas of special education as well as issues specific to each special education category.	
CISP 587 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CISP 629 Special Education Seminar	3 Credit hours
CISP 588 Independent Study	1-4 Credit hours	Research methods and current significant findings in special education. Guest speakers. Advanced special education students only.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CISP 600 Grant Writing in Sp Ed	3 Credit hours	CISP 645 Characteristics Methods E/BD	3 Credit hours
A review of the federal and state guidelines for writing grants in Special Education. The priority areas of special education in which monies are currently available will also be examined.		Recognition of socio-emotional issues, assessment of educational needs, establishment of programs to implement behavioral change and provision of necessary modification in educational programs to remediate learning and behavioral difficulties of children.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CISP 601 Psych Found Giftedness	3 Credit hours	CISP 646 Field Exper Learn Disability	3 Credit hours
A study of measures used to identify the gifted and interpretation of results, psychological development of the gifted and psychological pressures, problems and adjustments strategies towards mental health in the gifted child.		Field Experience (practicum) affords graduate students an opportunity to demonstrate the skill-based competences required by CEC standards and to qualify for an LD teaching license. Supervised experiences of one semester in field work with children or youth who exhibit symptoms of problems in learning.	
Grade Mode: Normal Grading Mode		Pre-req: (CI 523 or CISP 523) and (CI 647 or CISP 647).	
CISP 602 Education Gifted Children	3 Credit hours	Grade Mode: Credit/No Credit Grade Only	
Educational models, identification techniques, teaching strategies and resources available for gifted children. Current trends in curriculum development for the gifted are also examined. (PR: CISP 526)		CISP 647 Char/Mthd Spec Lrn Disabilities	3 Credit hours
Grade Mode: Normal Grading Mode		Recognition of learning disabilities, assessment of educational needs, and understanding of evidence-based teaching techniques and interventions to promote success of students with or at-risk of learning disabilities.	
CISP 603 Field Experience: Gifted	3 Credit hours	Pre-req: CISP 520.	
Supervised experiences (one semester) in field work with children who exhibit potential giftedness.		Grade Mode: Normal Grading Mode	
Pre-req: CISP 602.		CISP 648 Field Exp Phys Handicap	3 Credit hours
Grade Mode: Credit/No Credit Grade Only		Grade Mode: Credit/No Credit Grade Only	
CISP 604 Pract Emotional Disturb	3 Credit hours		
An initial participation and observation experience with children experiencing behavior problems. Course evolves around bi-weekly seminar and selected projects.			
Grade Mode: Credit/No Credit Grade Only			
CISP 606 Reading Strat Except Student	3 Credit hours		
This course examines research-strategies in reading instruction for students with high-incidence disabilities. This includes application of appropriate techniques in assessment, materials, and instructional strategies for adapted reading lessons.			
Grade Mode: Normal Grading Mode			

CISP 649 Field Exper Emotional Distur**3 Credit hours**

Supervised field experiences (one semester) working with children who exhibit symptoms of emotional disturbances- behavioral disorders. (PR: CISP 520 and CISP 624)

Pre-req: (CI 524 or CISP 524) and (CI 645 or CISP 645).

Grade Mode: Credit/No Credit Grade Only

CISP 650 Sp Ed Evaluate Teach Tech**3 Credit hours**

Educational assessment and diagnostic evaluation for remediation- amelioration; advanced course for providing understanding and utilization of evaluation, teacher assessment, and analysis for programming for exceptional individuals. (PR: CISPO 626)

Grade Mode: Normal Grading Mode

CISP 651 Field Exper Mental Impairment**3 Credit hours**

Field Experience (practicum) allows candidates to demonstrate skill-based competencies required by CEC and to qualify for a teaching license in mild/moderate Mental Impairment. All-day supervised teaching in special classes in the public schools required of all students who are completing curriculum for teachers of mentally retarded children. (PR: CI 533 and CI 553)

Pre-req: (CI 533 or CISP 533) and (CI 553 or CISP 553).

Grade Mode: Credit/No Credit Grade Only

CISP 652 Reading & Spell for Learn Dis**3 Credit hours**

An integrated, in-depth study of current LD reading and written language programs as determined by research studies. Tutoring of LD student is required.

Grade Mode: Normal Grading Mode

CISP 655 Field Exp: Multi-Categorical**3 Credit hours**

Field Experience (Practicum) affords graduate students an opportunity to demonstrate the skill-based competencies required by CEC Standards and to qualify for the multi- categorical teaching license. (PR: CISP 553, 645, and 647)

Pre-req: CISP 645 and CISP 647 and CISP 553.

Grade Mode: Credit/No Credit Grade Only

CISP 656 Field Experience Non Public**3 Credit hours**

Field experience in a non-public setting affords graduate students an opportunity to demonstrate the skill-based competencies required by CEC Standards and to qualify for the multi-categorical teaching license. **Pre-req:** CISP 520 and CISP 553 and CISP 645 and CISP 647.

Grade Mode: Credit/No Credit Grade Only

CISP 660 Grant Writing Sp Ed**3 Credit hours**

Grade Mode: Normal Grading Mode

CISP 661 Intro Preschool Sp Ed**3 Credit hours**

An overview of early childhood special education programs including historical events, legislation, the population served, program models and components and current issues and trends.

Grade Mode: Normal Grading Mode

CISP 662 Instruct Char of Autism**3 Credit hours**

This online course provides information on evidence-based practices used to teach students with autism spectrum disorder (ASD). The course is the second in a two-course sequence that leads to the WV Autism Teaching Endorsement (PR: CISP 527). A lecture-discussion course, designed to provide students with an understanding of the learning characteristics of autistic children and research-based instructional techniques for teaching and managing behavior. (PR: CI 427 or 527)

Pre-req: CISP 527 or CI 527 or CISP 527E.

Grade Mode: Normal Grading Mode

CISP 663 Dev Issue Preschool Hand**3 Credit hours**

An examination of the normal development of young children, the interrelated effects of impairment in various areas of development and strategies for intervention.

Grade Mode: Normal Grading Mode

CISP 664 Practicum in Autism**3 Credit hours**

This course contains two components: A competency-based practicum experience with students with autism spectrum disorders (ASD) and a seminar with regular discussion and readings on practical issues concerning the education of students with ASD.

Pre-req: CISP 527 or CI 527 and CISP 662 or CI 662.

Grade Mode: Normal Grading Mode

CISP 665 Assess Preschool Sp Ed**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CISP 666 Curr/Meth Preschool Sp Ed**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CISP 673 Field Exp Preschool Sp Ed**3 Credit hours**

Grade Mode: Credit/No Credit Grade Only

CISP 674 Clinical: Preschool Special Ed**3 Credit hours**

Clinical Preschool Special Education. 3 hrs. Emphasis on infants and toddlers identified as at-risk or with special needs. Clinical field observations of practitioners (developmental specialists/service coordinator) and service providers are required.

Grade Mode: Credit/No Credit Grade Only

Curriculum & Instruction Visually Impaired

CIVI 500 Intro Visual Impair**3 Credit hours**

introduction to educational programs and services for students with visual impairments, history, definitions, incidence and prevalence, development, psychosocial aspects, service delivery models, issues, professionalism.

Grade Mode: Normal Grading Mode

CIVI 501 Reading/Writing Strat Vis Imp**3 Credit hours**

Knowledge and skills in reading and writing the literary braille code, writing with braillewriter and slate and stylus, proofreading, interlining, basic Nemeth mathematics code, basic textbook formatting, computer translation, overview of other braille codes.

Grade Mode: Normal Grading Mode

CIVI 502 Anat Phys Human Vis Sys**3 Credit hours**

Structure and function of the eye, development of the visual system, causes and implications of eye conditions, clinical and functional, vision assessments, environmental modifications, relationship to other disabilities, and neurological aspects of visual impairment.

Grade Mode: Normal Grading Mode

CIVI 503 Assess/Prog Plan Vis Impaired 3 Credit hours

Strategies for designing and adapting instruction for students with visual impairments in academic programs, expanded core curriculum, principles of special methods, teaching literacy and other communication skills, formal and informal assessment strategies, early childhood intervention parent involvement, collaboration skills.

Grade Mode: Normal Grading Mode

CIVI 504 Assess/Plan Vis Imp Add'l Dis 3 Credit hours

Strategies for designing specialized instruction for students with visual impairments who also have severe/multiple disabilities, interaction of sensory disabilities with other disabilities, functional curricula, alternative communication and mobility systems, collaboration with classroom teachers and other specialists.

Grade Mode: Normal Grading Mode

CIVI 505 Braille 3 Credit hours

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.

Grade Mode: Normal Grading Mode

CIVI 507 Advanced Braille & Tech 3 Credit hours

Codes and techniques for advanced braille. Essential skills in transcribing Nemeth code for mathematics and science, formatting techniques, and computer translation. Overview of Grade III braille.

Pre-req: CIVI 501.

Grade Mode: Normal Grading Mode

CIVI 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIVI 581 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIVI 582 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIVI 583 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIVI 585 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIVI 586 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIVI 587 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIVI 588 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIVI 600 Math Methods/Visual Impairment 3 Credit hours

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.

Pre-req: CIVI 500 and CIVI 501.

Grade Mode: Normal Grading Mode

CIVI 601 Practicum Vis Imp I 1-6 Credit hours

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.

Grade Mode: Satisfactory/Unsatisfactory

CIVI 602 Pract in Visual Imp II 3 Credit hours

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.

Grade Mode: Satisfactory/Unsatisfactory

CIVI 603 Orientation & Mobility Skills 3 Credit hours

Grade Mode: Normal Grading Mode

Early Childhood Education**ECE 530 Preschool Curriculum/Methods 3 Credit hours**

Historical and contemporary curriculum and methods for preschool children with emphasis on current best practices.

Grade Mode: Normal Grading Mode

ECE 535 Adm Early Child Programs 3 Credit hours

This course examines the administration and educational aspects of early childhood education programs. Classroom observation is required.

Grade Mode: Normal Grading Mode

Educational Foundations**EDF 502 Psy Mid Childhood Student 3 Credit hours**

A course in the study of developmental principals relating to the physical, cognitive, social, and moral development of the middle childhood student 10-14 years old.

Grade Mode: Normal Grading Mode

EDF 513 Human Growth Dev Birth-8 Yr 3 Credit hours

This course examines the relationship between developmental principles in childhood and educational practice.

Grade Mode: Normal Grading Mode

EDF 514 Human Growth Dev Adolescence 3 Credit hours

This course examines the relationship between developmental principles in adolescence and educational practice.

Grade Mode: Normal Grading Mode

EDF 515 History Modern Education 3 Credit hours

Our debt to the ancient Hebrews, Greeks, and Romans. Emphasis also is placed upon the movements since the beginning of the Renaissance.

Grade Mode: Normal Grading Mode

EDF 537 MAT Level I Clinical Exper 0 Credit hours

Thirty-five hours 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: CI 515)

Co-req: CI 515

Grade Mode: Credit/No Credit Grade Only

EDF 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

EDF 581 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

EDF 582 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

EDF 583 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

EDF 585 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

EDF 586 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

EDF 587 Independent Study	1-4 Credit hours	EDF 636 Advanced Classroom Assessment	3 Credit hours
Grade Mode: Normal Grading Mode		History, philosophy and advanced statistical methods for testing, measuring and evaluating pupil behavior are studied.	
EDF 588 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		EDF 637 MAT Level II Clinical Exper	0 Credit hours
EDF 610 Trends & Issues in Education	3 Credit hours	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 and CI 515)	
An investigation of current trends and issues in education through extensive reading, research and discussion. Implications for schools, classrooms, and teachers are the focus of the course.		Pre-req: EDF 537 and CI 515.	
Grade Mode: Normal Grading Mode		Grade Mode: Credit/No Credit Grade Only	
EDF 612 Educational Evaluation	3 Credit hours	EDF 640 Literature	1-3 Credit hours
A study of the fundamental skills needed to evaluate educational progress at the individual, classroom, program, and school levels.		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 re- gistration for this course is permitted.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
EDF 615 Hist of Education in US	3 Credit hours	EDF 641 Seminar	2-3 Credit hours
Development of public and private educational systems in the United States.		A guided program of readings, reports and discussions. No student may register for this course a second time.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
EDF 616 Adv Studies Human Develop	3 Credit hours	EDF 660 Philosophy of Education	3 Credit hours
The nature of human growth and development from infancy to adulthood.		Surveys basic philosophy schools and concepts and their application to educational practice.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
EDF 617 Multiple Regression	3 Credit hours	EDF 665 Sociology of Amer Schools	3 Credit hours
A first course in Multiple Regression Analysis and its application to educational research. (PR: EDF 517 or Equivalent)		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
EDF 618 Multilevel Analysis	3 Credit hours	EDF 676 Statistical Methods	3 Credit hours
An introduction to applied multilevel analysis and growth curve modeling for nested educational data. The nested data may have a repeated measures dependent variable.		A foundation course in descriptive and inferential statistics as applied in education and the social sciences.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
EDF 619 Educational Psychology	3 Credit hours	EDF 677 MAT Level III Clinical Exper	3-9 Credit hours
Study of learning theories and their applications to teaching.		Culminating clinical experience through directed activity in a clinical setting for MAT/PBC student.	
Grade Mode: Normal Grading Mode		Pre-req: EDF 537 and EDF 637.	
EDF 620 Mixed Methods Research	3 Credit hours	Grade Mode: Credit/No Credit Grade Only	
Integrates quantitative and qualitative approaches and applications to research, couching these models within developing theories for and approaches to mixed methods research in education and closely related fields.		EDF 679 Problem Report	1-3 Credit hours
Grade Mode: Normal Grading Mode		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.	
EDF 621 Educ Research & Writing	3 Credit hours	Grade Mode: Normal Grading Mode	
Research methods and techniques and their application.		EDF 681 Thesis	3-6 Credit hours
Grade Mode: Normal Grading Mode		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 com- pleting 681 must defend their thesis in an oral examination.	
EDF 625 Qualitative Research Educ	3 Credit hours	Grade Mode: Normal Grading Mode	
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.			
Grade Mode: Normal Grading Mode			
EDF 630 Comparative Education	3 Credit hours		
The study of the origins, nature, scope, basic literature and methodology of comparative education.			
Grade Mode: Normal Grading Mode			
EDF 635 Policy Studies in Education	3 Credit hours		
The course focuses on current policy issues facing educat- ors today. The course offers conceptual and analytical tools for a critical examination of the uncertain political environment of schooling.			
Grade Mode: Normal Grading Mode			

EDF 703 Research Design**3 Credit hours**

The purpose of this doctoral research methods course is to prepare College of Education doctoral students to design and carry out research at the doctoral level (PR: Admission to EdD Program)

Grade Mode: Normal Grading Mode**EDF 711 Survey Research in Education****3 Credit hours**

Advanced research, theories, methods and procedures for conducting survey research in education.

Grade Mode: Normal Grading Mode**EDF 719 Intro to Doctoral Studies****3 Credit hours**

This course is designed to introduce students to the tasks and processes involved in the completion of the doctoral requirements (PR: Admission to the Cooperative Doctoral Program)

Grade Mode: Normal Grading Mode**EDF 725 Adv Qualitative Research****3 Credit hours**

Advanced study of selected topics in qualitative research. Emphasis on application of qualitative research knowledge and skills.

Grade Mode: Normal Grading Mode**EDF 776 Comp Analysis in Doctoral Res****3 Credit hours**

This course provides the development of computer-based skills and competencies for applying statistical concepts and procedures when conducting research. (PR: EDF 676 or similar)

Pre-req: EDF 676 or EDF 517.**Grade Mode:** Normal Grading Mode**Leadership Studies****LS 510 Principalship:Role & Tasks****3 Credit hours**

The Principalship is the study of school management as it relates to ethical behavior, and to support services, information systems, fiscal matters, and facility utilization and maintenance.

Grade Mode: Normal Grading Mode**LS 515 Curric and Instr Leadership****3 Credit hours**

The development and/or upgrading of supervisory practices in the areas of instructional leadership, instructional program development, instructional strategies, implementation and evaluation, and human relations.

Grade Mode: Normal Grading Mode**LS 520 Admin Elem Mdle & Sec Schools****3 Credit hours**

An investigation of the effects of the unique physical, social, mental, and moral characteristics of pre, early, and adolescent children on educational processes, organizations, and personnel.

Grade Mode: Normal Grading Mode**LS 530 Human Rel Skills for Leaders****3 Credit hours**

This course assesses and develops students' knowledge and skills in interpersonal relations and ethical practices. It provides structured experiences in group processes, verbal and non-verbal communications leadership styles, and team building.

Grade Mode: Normal Grading Mode**LS 550 Schools as Systems****3 Credit hours**

Assesses and develops student's knowledge and skills in change strategies, school cultures, systems theory, and understanding of the school in relation to other systems, agencies, and organizations.

Grade Mode: Normal Grading Mode**LS 558 School Law and the Teacher****3 Credit hours****Grade Mode:** Normal Grading Mode**LS 561 Professional Development****1-4 Credit hours**

These courses and activities are designed to meet the specific in-service needs of public school administrators. Credit in these courses may be used for certificate renewal and salary upgrading but not in degree programs.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**LS 562 Professional Development****1-4 Credit hours**

These courses and activities are designed to meet the specific in-service needs of public school administrators. Credit in these courses may be used for certificate renewal and salary upgrading but not in degree programs.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**LS 563 Staff Development****1-4 Credit hours**

These courses and activities are designed to meet the specific in-service needs of public school administrators. Credit in these courses may be used for certificate renewal and salary upgrading but not in degree programs.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**LS 580 Special Topics in Leadership****1-9 Credit hours**

To provide the master's level student an opportunity to examine selected issues in leadership and to apply their findings to the field of study.

Grade Mode: Normal Grading Mode**LS 585 Independent Study****1-4 Credit hours**

Approval of Program Director and Permission of chair. Student must have a GPA of 3.0 to take class.

Grade Mode: Normal Grading Mode**LS 586 Independent Study****1-4 Credit hours**

Approval of Program Director and Permission of chair. Student must have a GPA of 3.0 to take class.

Grade Mode: Normal Grading Mode**LS 587 Independent Study****1-4 Credit hours**

Approval of Program Director and Permission of chair. Student must have a GPA of 3.0 to take class.

Grade Mode: Normal Grading Mode**LS 588 Independent Study****1-4 Credit hours**

Approval of Program Director and Permission of chair. Student must have a GPA of 3.0 to take class.

Grade Mode: Normal Grading Mode**LS 600 School Personnel Administra****3 Credit hours**

This course offers an examination of personnel functions including recruitment, selection, orientation, evaluation, and retention with particular emphasis on staff development.

Grade Mode: Normal Grading Mode**LS 604 CTE Leadership Studies I****3 Credit hours**

Leadership preparation for career and technical education programs located at technical centers and/or high schools. Students will study career and technical education policies, funding sources, and accountability within Simulated Workplace.

Grade Mode: Normal Grading Mode

LS 606 Plan Res & Eval for Sch Lead**3 Credit hours**

This course is designed to avail potential school administrators with an understanding of planning strategies, academic research, action research, and program evaluation methods, with the intent of their being able to write a cogent, data-based school improvement plan.

Grade Mode: Normal Grading Mode**LS 608 CTE Leadership Studies II****3 Credit hours**

Leadership preparation for career and technical education programs located at technical centers and/or high schools. Students will study career/technical education initiatives, importance of advisory committees, and economics of Simulated Workplaces.

Pre-req: LS 604 with a minimum grade of D.**Grade Mode:** Normal Grading Mode**LS 610 Leadership for Sch Improve****3 Credit hours**

Leadership preparation for developing and implementing a shared vision and strategic plans focused on teaching and learning, implementing change, applying leadership theory and acting with understanding of society's influences.

Grade Mode: Normal Grading Mode**LS 612 Educ Tech for Administrators****3 Credit hours**

This course addresses the role of the principal in the development and implementation of school curriculum. This includes developmentally appropriate curriculum design, special education curriculum and modifications, the integration of technology, and authentic assessment.

Grade Mode: Normal Grading Mode**LS 615 Leadership in Public Sector****3 Credit hours**

This course will enable public sector leaders to better understand the perspectives they bring to the setting, define and evaluate personal and organizational goals, and develop strategies to achieve shared goals.

Grade Mode: Normal Grading Mode**LS 616 Higher Ed Governance****3 Credit hours**

This course is designed to develop an understanding of the structure of governance of multi-campus public higher education systems.

Grade Mode: Normal Grading Mode**LS 617 Intro Stu Pers Adm/Higher Ed****3 Credit hours**

This course surveys the purpose and functions of student personnel administration in higher educational institutions and the administrative procedures developed to accomplish these purposes.

Grade Mode: Normal Grading Mode**LS 618 History of Higher Education****3 Credit hours**

This course will present a historical overview of the factors that influence the development of higher education in America.

Grade Mode: Normal Grading Mode**LS 621 Pub Policy Analysis Higher Ed****3 Credit hours**

This course will introduce students to the process of developing federal and state public policy for higher education and examine legislation related to governance, finance, and oversight.

Grade Mode: Normal Grading Mode**LS 625 Human Resources Management****3 Credit hours**

This course develops knowledge of the major functions and tasks necessary for the development of human resources.

Grade Mode: Normal Grading Mode**LS 626 Fundraising Management****3 Credit hours**

This course will provide students with an overview of the fundamentals of fundraising including such vehicles as major campaigns, donor research, management practices, and ethical issues.

Grade Mode: Normal Grading Mode**LS 628 Nonprofit & Public Sector Orgs****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**LS 630 The School and the Community****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**LS 632 Human Rel in Public Sec****3 Credit hours**

This course is designed to assist leaders in the public sector to establish and maintain positive relationships with the organization's staff and volunteers, as well as with its constituents.

Grade Mode: Normal Grading Mode**LS 635 Organizational Theory****3 Credit hours**

This course analyzes leadership theories and their application to leadership and management in nonprofit and public sector organizations.

Grade Mode: Normal Grading Mode**LS 640 Legal Issues NPO & Public****3 Credit hours**

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 CEO's, staff, governing boards.

Grade Mode: Normal Grading Mode**LS 645 Comm Collaborative Plan Mgmt****3 Credit hours**

Students will be provided with the opportunity to analyze the nature of collaboration among state, local, 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.

Grade Mode: Normal Grading Mode**LS 647 Adult & Continuing Educa****3 Credit hours**

This course develops an understanding of the principles, concepts, and processes involved in planning learning experiences for adults within the framework of higher education.

Grade Mode: Normal Grading Mode**LS 650 Internship-School Management 1****3 Credit hours****Grade Mode:** Normal Grading Mode**LS 655 Externship****1-9 Credit hours**

This is a field-based course designed for practicing professionals.

Grade Mode: Normal Grading Mode**LS 660 Capstone: School Management****3 Credit hours****Grade Mode:** Normal Grading Mode**LS 661 Internship-Instr Supervision 2****3 Credit hours****Grade Mode:** Normal Grading Mode

- LS 675 Legal and Policy Issues** 3 Credit hours
This course examines the principal's role and responsibility related to law and administrative policy.
Grade Mode: Normal Grading Mode
- LS 685 Capstone: Portfolio Assessment** 3 Credit hours
Training and assessment experiences for students seeking initial certification as a school principal.
Grade Mode: Normal Grading Mode
- LS 690 Leadership Capstone Course** 3 Credit hours
This course represents a culminating experience and an opportunity to demonstrate a broad mastery of learning across the respective program curriculum.
Grade Mode: Normal Grading Mode
- LS 691 The Attendance Director** 3 Credit hours
This course develops the administrative skills required for managing policies, programs, and activities related to the position of public school social worker or attendance director.
Grade Mode: Normal Grading Mode
- LS 692 Capstone: School Social Serv** 3 Credit hours
This course provides pre-service training and assesment for students seeking licensure as a public school social worker/ attendance director.
Pre-req: LS 691.
Grade Mode: Normal Grading Mode
- LS 693 Sch Law for Support Personnel** 3 Credit hours
This course provides the student with a working knowledge of school law and other legal matters as it pertains to the attendance director. The focus of this course is on those laws dealing with mandatory attendance and juvenile matters. (PR: Admission into the Social Services/Attendance Program)
Grade Mode: Normal Grading Mode
- LS 700 Superintendency** 3 Credit hours
This course examines the roles, relationships, behaviors and competencies which characterize school superintendents ans their staffs.
Grade Mode: Normal Grading Mode
- LS 701 Internship-Begnng Supertndncy** 3 Credit hours
Grade Mode: Normal Grading Mode
- LS 704 LDSH SP POP** 3 Credit hours
This course identifies and explains the laws and policies that service students with special needs. School leaders will learn to apply these laws to ensure they meet students' needs while making the best decisions for their school.
Grade Mode: Normal Grading Mode
- LS 705 Administration Theory** 3 Credit hours
This course analyzes administrative theories and their application to organizational leadership and management.
Grade Mode: Normal Grading Mode
- LS 707 Ethical Theory** 3 Credit hours
The course focuses on the primary ethical theories and the ethical resoning 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.
Grade Mode: Normal Grading Mode
- LS 708 Comparative Study Comm Coll** 3 Credit hours
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.
Grade Mode: Normal Grading Mode
- LS 710 Principles of Leadership** 3 Credit hours
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.
Attributes: Online Course
Grade Mode: Normal Grading Mode
- LS 711 School Leadership Practices 1** 3 Credit hours
Grade Mode: Normal Grading Mode
- LS 712 School Leadership Practices 2** 3 Credit hours
Grade Mode: Normal Grading Mode
- LS 714 Higher Ed Admin** 3 Credit hours
This course is a survey of higher education with attention to administrative functions at the campus and state levels.
Grade Mode: Normal Grading Mode
- LS 715 Computer & School Management** 3 Credit hours
Grade Mode: Normal Grading Mode
- LS 716 Higher Ed Governance** 3 Credit hours
This class will review different models for governing public higher education at a system level and will examine the changing nature of higher education.
Grade Mode: Normal Grading Mode
- LS 717 Intro Stu Pers Adm/Higher Ed** 3 Credit hours
This course surveys the purpose and functions of student personnel administration in higher educational institutions and the administrative procedures developed to accomplish these purposes.
Grade Mode: Normal Grading Mode
- LS 718 Hist of Higher Ed** 3 Credit hours
This course is designed to provide the student with an understanding of the historical development of American higher education. It will examine past and future issues that have or may affect higher education.
Grade Mode: Normal Grading Mode
- LS 720 Financial Models in Education** 3 Credit hours
This course examines concepts in the financing and economics of education in multiple education environments.
Grade Mode: Normal Grading Mode
- LS 724 Organizational Analysis** 3 Credit hours
This course is an interdisciplinary approach to the study of organizational structure, relationships, and functions focusing on problems and alternatives for solving them.
Grade Mode: Normal Grading Mode
- LS 726 Institutional Adv in High Ed** 3 Credit hours
Students will understand the broad area of institutional advancement, including major campaigns, donor research, donor recognition programs, restricted gifts, and so forth.
Grade Mode: Normal Grading Mode
- LS 730 Educational Facility Planning** 3 Credit hours
This course teaches the systematic collection and utilization of data in planning for educational facilities. (PR: Principal or supervisor certificate or consent)
Grade Mode: Normal Grading Mode

LS 740 Legal Issues in Education**3 Credit hours**

This course examines various legal issues in education in multiple education environments.

Grade Mode: Normal Grading Mode

LS 747 Admin of Comm Colleges**3 Credit hours**

An analysis of community college governance, structure, functions, and relationship with its respective community and local/state government.

Grade Mode: Normal Grading Mode

LS 755 Internship-Admin of Higher Ed**3 Credit hours**

This course provides a field experience in higher education administration. (PR: Consent)

Grade Mode: Normal Grading Mode

LS 756 Current Issues in Leadership**3 Credit hours**

The course focuses on current and emerging problems of leadership among varied organizational types.

Grade Mode: Normal Grading Mode

LS 760 Politics of Education**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

LS 762 Higher Ed Politics**3 Credit hours**

This course is designed to make students familiar with the basic concepts and tools of politics. The course will apply these political concepts to higher education.

Grade Mode: Normal Grading Mode

LS 764 Adv Research I**3 Credit hours**

This class for doctoral candidates will develop a foundation in research methods, research ethics, and research skills.

Grade Mode: Credit/No Credit Grade Only

LS 765 Adv Res II in Lead Studies**3 Credit hours**

This is an advanced research course directed toward the preparation of a thesis or dissertation. (PR: Consent)

Grade Mode: Credit/No Credit Grade Only

LS 770 Practicum**3 Credit hours**

This is a highly individualized cooperative educational administration experience between the college and another public agency. (PR: Consent)

Grade Mode: Normal Grading Mode

LS 771 School District Leadership 1**3 Credit hours**

This is an individualized cooperative field experience in district level school administration. (PR: Consent)

Grade Mode: Normal Grading Mode

LS 772 School District Leadership 2**3 Credit hours**

This is an individualized cooperative field experience in district level school administration. (PR: Consent)

Grade Mode: Normal Grading Mode

LS 775 Seminar**3 Credit hours**

This course is a concentrated analysis of current problems in educational administration. (PR: Consent)

Grade Mode: Normal Grading Mode

LS 780 Special Topics**1-6 Credit hours**

This course requires study, reading and research is an approved area of education and supervision. (PR: Consent)

Grade Mode: Normal Grading Mode

LS 785 Externship**1-9 Credit hours**

This is a field based program designed for practicing administrators. (PR: Consent)

Grade Mode: Normal Grading Mode

LS 787 Cont First Amendment Issues**3 Credit hours**

This course will examine contemporary first amendment issues as they relate to education in public education and higher education.

Grade Mode: Normal Grading Mode

LS 790 Dissertation Research**1-9 Credit hours**

Grade Mode: Normal Grading Mode

LS 792 MU Research Colloquium**3 Credit hours**

Grade Mode: Normal Grading Mode

LS 797 Dissertation Research**1-9 Credit hours**

Dissertation research is the purpose of this course. (PR: Consent)

Grade Mode: Credit/No Credit Grade Only

School Psychology**SPSY 523 Independent Research****1-3 Credit hours**

Course designed to provide the student with the opportunity to work with a school psychology program professor on a research problem mutually agreed upon in terms of a specific plan of study. (PR: Permission of the instructor)

Grade Mode: Normal Grading Mode

SPSY 601 Prof Comp I Schools**3 Credit hours**

This course is designed as an introduction to schools as organizations and systems.

Grade Mode: Normal Grading Mode

SPSY 603 Prof Comp II School Psych**3 Credit hours**

This course provides an opportunity to teach the historical roots of contemporary psychology and school psychology and to help students contemplate the future of school psychology. (PR: SPSY 601)

Pre-req: SPSY 601.

Grade Mode: Normal Grading Mode

SPSY 606 Adol Substance Abuse**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

SPSY 616 Typ & Atyp Child Dev**3 Credit hours**

This is a multicultural, reading and writing intensive course that presents information on typical and atypical human development.

Grade Mode: Normal Grading Mode

SPSY 617 Ind Svc I Consultation**3 Credit hours**

This course is an introduction to the theory and practice of consultation and will prepare students to serve as consultants within public schools.

Grade Mode: Normal Grading Mode

SPSY 618 Dir Svc I Instruct & Bmod**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

SPSY 619 Dir Svc II-Ind Grp Csl**3 Credit hours**

This course is a direct interventions course focusing on individual and group therapy for children.

Grade Mode: Normal Grading Mode

SPSY 620 Ind Svc II Prevention**3 Credit hours**

This course is an introduction to the science and practice of primary prevention. Pre: SPSY 617.

Pre-req: SPSY 617.

Grade Mode: Normal Grading Mode

SPSY 621 Data-Based Decision I**3 Credit hours**

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 Kit".

Grade Mode: Normal Grading Mode

SPSY 622 Data-Based Decision II**3 Credit hours**

This course is an intermediate problem-solving course designed to provide students with a variety of assessment measures to add to their professional "tool kit".

Grade Mode: Normal Grading Mode

SPSY 624 Data-Based Decision III**3 Credit hours**

Review of standard assessment instruments used in school psychology practice emphasizing those aspects of specialized testing consistent with diagnostic needs of the individual child or groups of children. (PR: SPSY 622)

Grade Mode: Normal Grading Mode

SPSY 674 Bio Bases School Psych**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

SPSY 675 Cognitive/Emo Bases Sch Psy**3 Credit hours**

SPSY 675 is a reading and writing intensive course that presents information of the psychological foundations of school psychology.

Grade Mode: Normal Grading Mode

SPSY 700 Special Topics**1-6 Credit hours**

Courses in specialized areas of school psychology on issues in the practice of school psychology. (PR: Permission of the instructor.)

Grade Mode: Normal Grading Mode

SPSY 701 Behavior Therapy**3 Credit hours**

Grade Mode: Normal Grading Mode

SPSY 710 Application of MTSS**3 Credit hours**

The focus of this course will be to integrate elements of consultation, assessment, and intervention into a comprehensive Multi-Tiered System of Support for behavior and academics from the perspective of a school psychologist.

Pre-req: SPSY 621 with a minimum grade of C and SPSY 622 with a minimum grade of C.

Grade Mode: Normal Grading Mode

SPSY 720 Counseling With Youth Ad**3 Credit hours**

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.

Pre-req: PSY 619.

Grade Mode: Normal Grading Mode

SPSY 738 Practicum I**3 Credit hours**

The initial practicum in school psychology is designed to provide a structured, experiential link between early coursework and practical experience. Pre: SPSY 601, SPSY 616, SPSY 621.

Pre-req: SPSY 621 and SPSY 616.

Grade Mode: Credit/No Credit Grade Only

SPSY 739 Practicum II**3 Credit hours**

The second practicum in school psychology is designed to provide a structured, experiential link between intermediate coursework and practical experience. Pre: SPSY 738.

Pre-req: SPSY 738.

Grade Mode: Credit/No Credit Grade Only

SPSY 740 Practicum III**1-6 Credit hours**

During this capstone experience, students will provide a full range of school psychological services in a multi-disciplinary training setting supervised by credentialed school psychologists.

Grade Mode: Credit/No Credit Grade Only

SPSY 745 Internship in Sch Psych**1-12 Credit hours**

Grade Mode: Credit/No Credit Grade Only

SPSY 750 Ed S Thesis Research**3 Credit hours**

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.

Grade Mode: Credit/No Credit Grade Only

SPSY 751 Program Evaluation**3 Credit hours**

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.

Pre-req: PSY 517 and SPSY 623.

Grade Mode: Credit/No Credit Grade Only

Adult and Continuing Education, M.S.

Program Description, M.S.

The Master of Science degree program in Adult and Continuing Education (ACE) is a field-based program designed to serve adult learners who may be employed on a full-time basis. The comprehensive program is intended for individuals who serve in an instructional, training, leadership, or professional role in human services areas of business, industry, government, community agencies, health care, or education. The program is designed for learners who aspire to become training and development professionals in business, industry, or service organizations. Students will learn to teach adults by gaining classroom knowledge, experiencing work-based activities, and participating in projects intended to develop the competencies utilized by professionals in the areas of Adult Education, Training and Development, and Career and Technical Center Teaching. The areas of emphasis in Adult and Continuing 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.

The areas of emphasis in Adult and Continuing Education (ACE) 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 an online delivery system. The program offers three areas of emphasis;

1. Adult Education and Evaluation, and
2. Career and Technical Center Teaching, and
3. Training and Development.

Students entering the program will build upon the academic background gained through their undergraduate education and professional employment. The program's coursework will provide the additional academic requirements, training, and leadership development necessary to complete a Master of Science degree. The student's plan of study will be created in consultation with his or her advisor, selecting an area of emphasis and planning the program.

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 (<https://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 Continuing Education program:

- Admission to the program also requires an undergraduate Grade Point Average (GPA) of 2.75 or higher on a 4.0 scale.
- 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

Areas of Emphasis in Adult Education and Evaluation

A total of 30 credit hours is required for program completion for the Adult Education and Evaluation area of emphasis 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 an academic portfolio in the capstone course during their last semester of enrollment, and may take no more than one other 3-hour course in the semester that the capstone course is taken.

Adult Education and Evaluation Area of Emphasis

The Adult Education and Evaluation area of emphasis serves training and development professionals looking to expand knowledge and further careers, as well as professionals wanting to transition into teaching adults.

Adult Education serves persons who work with adults in either an instructional or an administrative role. Students 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.

Area of Emphasis in Career and Technical Center Teaching

A total of 30 credit hours is required for program completion for the Career and Technical Center Teaching area of emphasis 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 an academic portfolio in the capstone course during their last semester of enrollment, and may take no more than one other 3-hour course in the semester that the capstone course is taken.

Area of Emphasis in Training and Development

Training and Development serves persons employed in business, industry, or other organizations involved in the advancement of knowledge, competencies, and skills of their employees. Students are drawn from various areas such as a management, marketing, human resources, and safety, whose responsibilities may include instructional design and preparation of employees for current jobs, future assignments, and/or personal enhancement.

For further information on this Area of Emphasis, please call the Leadership Studies department at 304-746-2514.

Plan of Study

Areas of Emphasis

Adult Education and Evaluation

Code	Title	Credit Hours
Required Core Courses		
ACE 603	Intro to Adult Ed & Learners	3
ACE 656	Instr Planning for Adults	3
ACE 671	Eval of Adult and Tech Educ	3
LS 632	Human Rel in Public Sec	3
General Courses		
ACE 600	Aspects of Train and Dev	3
ACE 618	Literature Adult Contin Educ	3
ACE 628	Adult Inst Envir & Pers Aspect	3
ACE 677	Research Method & Design ACE	3
ACE 689	Grant Proposal Writing	3
Capstone		
ACE 685	ACE Capstone	3
Total Credit Hours		30

Career and Technical Center Teaching

Code	Title	Credit Hours
Required Core Courses		
ACE 603	Intro to Adult Ed & Learners	3
ACE 656	Instr Planning for Adults	3
ACE 671	Eval of Adult and Tech Educ	3

LS 632	Human Rel in Public Sec	3
West Virginia Licensure Courses		
ACE 508	Teach Methods Career Tech Educ	3
ACE 511	Intro to Career and Tech Educ	3
ACE 524	Safety in Career Technical Ed	3
ACE 650	Career Educ Curriculum Dev	3
ACE 673	Assessment in Adult Tech	3
ACE 548	Appl Basic Skills Career Tech	3
or ACE 631	Survey Prac Computer Appl	
or ACE 637	Indiv Computer Prog App	
Capstone		
ACE 685	ACE Capstone	3
Total Credit Hours		33

Counseling, M.A.

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.

Academic Standards

Students in the counseling program are required to fulfill requirements set by the Graduate College as well as the Counseling program. The university standards are published in the *Graduate Catalog*. Students wishing to review these standards should review the catalog published the year of their admission to the program.

Counseling Program Standards

In addition, all students in the program will be held to the following standards:

1. Students may use three (3) credits of C in Counseling Program courses to meet requirements of graduation. Once a student earns a grade of C, that student needs to meet with his or her advisor, and, perhaps, the instructor of that course to discuss the grade, the deficiencies that led to that grade, and prepare a plan to prevent a second C or lower grade. This plan will be put in writing and signed by the student, advisor, and the faculty member and submitted to the Program Director. A copy will be retained in the student's

advising file. Any student earning a C in any of the clinical courses will be required to repeat that course, but the original C will stand as the first C (no grade will be replaced).

2. Students who earn six (6) credits of C or D in Counseling Program courses may be dismissed from the program. Students who earn an F, NC, or U in any Counseling course in their Plan of Study may be dismissed from the program.
3. Students dismissed from the program may not reapply to this program.

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.

Graduate College

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 (<https://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>).

Counseling Program

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. A bachelor's degree from a regionally accredited institution. (Transcript required from degree-granting institution only.)
2. Evidence of academic aptitude for graduate-level study by the following:
 - a. A 2.75 overall Undergraduate GPA or higher on a 4.0 scale on the final degree transcript, or
 - b. A Graduate GPA of 3.0 on any previously completed advanced degree.
3. International student applicants must demonstrate English proficiency according to university standards. See the Admissions section for information.
4. A writing sample expressing career goals and estimation of personal suitability for the profession of counseling. This should follow the Guidelines for the Written Statement found on the program website, or you may contact the program for a copy to be sent to you.
5. Two written references (from current or former professors, if possible). These should be completed by professionals with knowledge of the applicant's suitability for graduate work (e.g., supervisors, undergraduate professors) in helping professions. They should be completed using the program-specific reference form found on the program website, or you may contact the program for a copy to be sent to you.

Conditional Admission

The Counseling program may admit applicants conditionally for one term, on a limited basis, at the discretion of the program.

Provisional Admission

The Counseling program may admit applicants provisionally on a limited basis, at the discretion of the program.

Applicants may submit their application materials at any time, but the program cannot guarantee that applications will be considered for the desired semester when submitted less than 14 days prior to the beginning of that semester. Applications too late to be considered for admission may be rolled to the following semester.

Candidacy Requirements

Applicants who successfully meet the above five criteria are granted admission based on the conditional, provisional, or full status noted above. At the end of the first 9 hours of prescribed coursework all students will undergo a candidacy review:

Code	Title	Credit Hours
COUN 574	Social & Cultural Found	3
COUN 600	Professional Orientation	3
COUN 602	Human Devel and Adjustment	3
EDF 621	Educ Research & Writing	3

Or advisor-approved course substitutions

Faculty will complete and review student performance evaluations to determine each student's appropriateness for continuance in the program. Faculty will notify students when they have been granted candidacy status upon a successful program review of the application.

Professional Development Admission

Applicants not intending to complete an entire degree program, but who wish to take courses for licensure, certification, or to be admitted to the certificate program (VoLT) need to follow the following guidelines for admission. Note that bachelor's and/or master's degrees are required where applicable.

Graduate Certificate of Advanced Studies in Violence, Loss and Trauma Counseling VoLT certificate (p. 142)

Applicants who have obtained a master's degree in behavioral health disciplines (counseling, psychology, school psychology, social work, etc.) or who are concurrently enrolled in one of these programs are eligible to apply for the VoLT certificate. They must follow one of the following routes:

- Students concurrently enrolled at Marshall University need only submit a Secondary Program Request form once they have completed the interview with counseling program faculty.
- Master's students at universities other than Marshall University may apply in the same way as one would apply for the full degree with the exception of designating "Professional Development - Certificate in Violence, Loss, and Trauma" as their intended program of study. They will submit the following materials:
 - an application
 - an application fee
 - a transcript from their current university
 - two (2) references

- a written statement of goals which speaks to their desire to work with trauma victims (see the Guidelines for Written Statement on the Program website)
- a letter from their program chair or director as evidence of their good standing in their current degree program.
- Applicants who completed their degree in Counseling or a related Behavioral Health field at Marshall University may apply designating the "Professional Development - Certificate in Violence, Loss, and Trauma" and need to submit:
 - an application
 - an application fee
 - a written statement of goals which speaks to their desire to work with trauma victims (see the Guidelines for Written Statement on the Program website).
(Note: Official MU transcripts will be obtained through the Banner system.)
- Applicants who have completed their degree outside of Marshall University and wish to take the Certificate courses must apply in the same way as one would apply for the full degree with the exception of designating "Professional Development - Certificate in Violence, Loss, and Trauma" as their intended program of study.
 - an application
 - an application fee
 - a transcript from the university where they completed their master's degree
 - two (2) references
 - a written statement of goals which speaks to their desire to work with trauma victims (see the Guidelines for Written Statement on the program website).

Licensure/Certification

Applicants who wish to take a limited number of courses to complete the requirements for Licensed Professional Counselor or for their School Counseling certification will submit the following materials:

Licensed Professional Counselor Applicants

Applicants who need to take graduate coursework to complete the education requirements for the LPC in West Virginia are invited to apply as non-degree students (see Admission Classifications under the Admissions Information section in the Graduate Catalog for more information). These students will submit:

- an application
- an application fee
- a transcript from the university where they completed their master's degree.
- a statement of intent stating what courses they are being directed by the WVBEAC or other state board to take

School Counseling Certification Applicants

Applicants who wish to obtain the School Counseling Certification after having completed a Master's in Mental Health Counseling are invited to apply as non-degree students as well. However, the courses specified for completing the school certification will be determined by a transcript review completed by program faculty. The students will submit:

- an application
- an application fee

- a transcript from the university where they completed their master's degree.
- a statement of intent that designates the School Counseling certification as their purpose for taking courses

Graduate Certificate of Advanced Studies 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 of Advanced Studies in Violence, Loss, and Trauma Counseling (VoLT) is completed in one of two ways:

1. 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.
2. 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 (<https://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 of Advanced Studies 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.

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.

Comprehensive Exam

All students will take the Counselor Preparation Comprehensive Examination (CPCE) prior to graduation. Students must apply to sit for the exam no later than two (2) weeks prior to the exam date. Payment for the exam is expected when checking in on exam day. Students should plan to take the exam one semester prior to their expected final semester. Detailed information regarding this will be distributed to students each semester.

Plan of Study

Core Curriculum

The following 45 semester hours of core courses are required of all students:

Code	Title	Credit Hours
Core Courses		
COUN 574	Social & Cultural Found	3
COUN 575	Prev & Treat of Addict	3
COUN 600	Professional Orientation	3
COUN 602	Human Devel and Adjustment	3
EDF 621	Educ Research & Writing	3
COUN 603	Counseling Theories	3
COUN 604	Group Coun & Tech	3
COUN 605	Theory Prac Human Appr	3
COUN 607	Coun Tech & Human Relat	3
COUN 631	Diag & Treatment Planning	3
COUN 632	Intro Mar/Coup & Fam Coun	3
COUN 606	Career & Lifestyle Develop	3
COUN 608	Practicum	3
COUN 691	Intern Mental Health Coun	3
COUN 698	Internship in School Coun	3
Total Credit Hours		45

Please check course prerequisites prior to registration.

All emphases (60 hours) satisfy the curricular requirements for professional counselor licensure in the State of West Virginia.

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:

Code	Title	Credit Hours
COUN 555	Crisis Int & Conf Res	3
COUN 630	Intro to Ment Health Coun	3
Advisor-Approved Electives		9
Total Credit Hours		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:

Code	Title	Credit Hours
COUN 670	Interv Current Issues Sch	3
COUN 672	Org & Admin of Sch Coun Prog	3
COUN 673	Coun Child Adol Parents	3
COUN 675	Leg/Ethical Issues for Coun	3
Advisor-Approved Elective		3
Total Credit Hours		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:

Code	Title	Credit Hours
Alternative Certification Courses		
EDF 665	Sociology of Amer Schools	3

CISP 521	Child w Exceptionalities (check with advisor)	3
Total Credit Hours		6

Total credit hours with Alternative Certification (including core) - 66

Code	Title	Credit Hours
Elective Course Options		
Select 15 hours of the following:		15
COUN 555	Crisis Int & Conf Res	
COUN 556	Death & Grief Counseling	
COUN 577	Stress Management Counseling	
COUN 579	Pharmacology in Counseling	
COUN 580	Special Topics	
COUN 581	Special Topics	
COUN 582	Special Topics	
COUN 583	Special Topics	
COUN 585	Independent Study	
COUN 586	Independent Study	
COUN 617	Seminar in Counseling	
COUN 620	Workshop in Counseling	
COUN 654	Family Violence	
COUN 655	Coun Victims Dom Violence	
COUN 682	Tr in Trauma Recovery	
COUN 683	Psychophys of Trauma	
COUN 684	Treating Complex Trauma & Loss	
COUN 685	Military Cult & Treat Vets	
COUN 686	Trauma and Suffering	
Total Credit Hours		15

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.

Admission Requirements

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 (<https://www.marshall.edu/edd/>).

Curriculum and Instruction, Ed.S. Education Specialist with an Area of Emphasis in Curriculum and Instruction, Ed.S.

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 (<https://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>).

Program Requirements 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.

Plan of Study

Code	Title	Credit Hours
Core Courses		
EDF 703	Research Design	3
EDF 625 or EDF 676	Qualitative Research Educ Statistical Methods	3
CIEC 700	Technology and Curriculum	3
EDF 711	Survey Research in Education	3
CI 677 or HUMN 604	Writing Publicatn Prof Ed Expository Wrtng for Research	3
Area of Emphasis		
CI 701	Curriculum Development	3
CI 702	Curriculum Theories	3
CI 703	Theory Models & Res. of Teach	3
CI 704	Soc Cult Pol Determ Curr	3
Capstone		

EDF 679	Problem Report	3
Total Credit Hours		30

Education, M.A. Teacher Licensure in West Virginia

With the exception of the Master of Arts in Teaching, 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.

Program Descriptions

The goal of the Education programs is to provide coordinated, sequential programs of study in an identified area of education. These programs provide 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 to meet individual needs.

The graduate certificate programs provide concentrated graduate-level study of a specialty. The master's degree offers 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 and Doctor of Education in Curriculum and Instruction. 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.

Accelerated Master's Degree

An Accelerated Master's Degree is available for qualified undergraduate majors in Early Childhood Education. Nine hours of undergraduate coursework may be taken at the graduate level and may be applied to both the B.A. in Early Childhood Education and the M.A. in Education with an area of emphasis in Early Childhood Education. Courses include:

Code	Title	Credit Hours
CI 559	Multicult Influence in Ed	3
ECE 530	Preschool Curriculum/Methods	3
ECE 535	Adm Early Child Programs	3

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.

Additional Certification for Teachers

A teacher with a valid West Virginia professional license who wants to add another teaching endorsement may do so by completing the course requirements, a performance assessment at the appropriate grade level, and, where specified, acceptable scores on the appropriate Praxis II test. Applicants from other states should verify eligibility for added endorsements through their state's Department of Education.

Admission Requirements

Admission Requirements to Master's Degree Programs

Applicants to the MA in Education 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 (<https://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>).

For full admission, applicants must have 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 **or** have a master's degree from a regionally accredited institution.

Applicants having an undergraduate degree from a regionally accredited institution with an undergraduate GPA of 2.5 or above, but below 3.0, may be granted provisional admission. Provisionally admitted applications will be granted full admission upon successful completion of 12 hours toward the approved plan of study with a GPA of 3.25 or higher, assuming that all other admission requirements are met.

Note: Some areas of emphasis are designed to lead to added endorsements for licensed teachers. Applicants may be asked to submit additional materials, such as documentation of current teacher licensure, before an admission decision is made.

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. Applicants must have:

- A baccalaureate degree from from an accepted, regionally accredited institution with an undergraduate Grade Point Average (GPA) of 2.50 or higher on a 4.0 scale; **or**
- A master's degree from from an accepted, regionally accredited institution.

Program Requirements

The Master of Arts in 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, human growth and development, technology, instructional methods and assessment (the M.A. core). Each student must also select an area of emphasis consisting of 18-21 hours of required coursework, depending on the area of emphasis. Students will meet

the comprehensive assessment requirement through the framework of a 3-hour capstone experience.

Plans of Study for Areas of Emphasis, Professional Development Programs

Plans of study marked with a plus sign (+) are available as graduate certificate programs. Certificate coursework may be taken as a stand-alone program.

Plans of study marked with an asterisk (*) may lead to added endorsements for licensed teachers. Endorsement programs are available to teachers who hold a valid West Virginia professional license in any area other than the one for which endorsement is desired. Applicants from other states should verify eligibility for added endorsements through their state's Department of Education.

Early Childhood Education

This Area of Emphasis combines theory, research, and practical applications to child development and early childhood education. Options are available for licensed PreK-K teachers pursuing an advanced degree or licensed elementary teachers seeking an added endorsement.

ECE Option 1 (PreK-K Licensed)

Option 1 is designed for teachers who hold a PreK-K professional license who wish to pursue an advanced degree, or non-licensed individuals who want to build their professional knowledge to better work with early learners in environments where teacher licensure is not required. This option may be completed as an Area of Emphasis within the M.A. in Education (36 hours). These 21 hours, plus 12 additional hours in the M.A. Core and three hours in the M.A. Capstone may be used to receive the M.A. in Education.

ECE Option 2 (K-6/K-8 Licensed) ^{+,*}

Option 2 is designed for teachers who hold a K-6 or K-8 professional license who wish to add a PreK-K endorsement. This option may be completed as a Graduate Certificate (21 hours) or may be used as an Area of Emphasis within the M.A. in Education (36 hours). These 21 hours, plus nine additional hours in the M.A. Core, three hours in the M.A. Capstone, and a three hour advisor approved elective may be used to receive the M.A. in Education.

Elementary Mathematics Specialist ^{+,*}

The goals of this Area of Emphasis are to strengthen mathematical content knowledge and mathematical teaching methods of elementary teachers, Grades K-6. This Area of Emphasis is designed for teachers who hold a valid professional license in Elementary Education. These courses may be completed as a Graduate Certificate (21 hours) or may be used as an Area of Emphasis within the M.A. in Education (36 hours). These 21 hours, plus nine additional hours in the M.A. Core, three hours in the M.A. Capstone, and a three-hour, advisor-approved elective may be used to receive the M.A. in Education. Satisfactory completion of the certificate program and state licensure requirements leads to the addition of an Elementary Mathematics Specialization endorsement on an existing, current, regular, elementary education teaching license. Candidates who complete the M.A. in Education or who already have a master's degree in education and complete state licensure requirements are eligible to apply for the Elementary

Mathematics Specialist endorsement on their current, regular education, teaching license.

Individualized Plan of Study

Students selecting an individualized program must work with an advisor to develop a Plan of Study that includes the M.A. Core (15 hours), an individually tailored Area of Emphasis (18 hours), and the Capstone Experience (3 hours).

Instructional Processes and Strategies

This Area of Emphasis is designed to provide advanced preparation to enhance planning, teaching, and learning processes. These 18 hours, plus 15 hours in the M.A. Core, and three hours in the M.A. Capstone may be used to receive the M.A. in Education.

Instructional Technology and Learning⁺

This Area of Emphasis focuses on instructional applications and classroom utilization of technology to improve teaching and learning. These courses may be completed as a Graduate Certificate (21 hours) or may be used as an Area of Emphasis within the M.A. in Education (36 hours). These 21 hours, plus nine additional hours in the M.A. Core, three hours in the M.A. Capstone, and a three hour advisor approved elective may be used to receive the M.A. in Education.

Mathematics Through Algebra I^{+,*}

This Area of Emphasis 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 this added endorsement in West Virginia. The goals of this Area of Emphasis are to provide mathematical content knowledge and mathematical teaching methods to prepare middle school mathematics teachers. These courses may be completed as a Graduate Certificate (24 hours) or may be used as an Area of Emphasis within the M.A. in Education (36 hours). These 24 hours, plus nine additional hours in the M.A. Core and three hours in the M.A. Capstone may be used to receive the M.A. in Education.

School Library Media Specialist^{+,*}

The Area of Emphasis in Library Media provides an added endorsement for elementary and secondary teachers who have met initial licensure requirements. The program prepares K-12 teachers to manage school library media centers, collaborate with faculty to support the school curriculum and facilitate information literacy. These courses may be completed as a Graduate Certificate (21 hours) or may be used as an Area of Emphasis within the M.A. in Education (36 hours). These 21 hours, plus 12 additional hours in the M.A. Core, and three hours in the M.A. Capstone may be used to receive the M.A. in Education.

Teaching English as a Second Language: Option 1 - Licensure (ESL-1)^{+,*}

The Area of Emphasis in Teaching English as a Second Language offers two options. "Licensure" provides an added endorsement for elementary and secondary teachers who have met initial licensure requirements. The purpose of both programs is to prepare teachers who work with learners who enter schools with a language other than English. Both programs may be completed as a Graduate Certificate (21 hours) or may be used as an Area of Emphasis within the M.A. in Education (36 hours). These 21 hours, plus nine additional hours in the

M.A. Core, three hours in the M.A. Capstone, and a three hour advisor approved elective, may be used to receive the M.A. in Education.

Teaching English as a Second Language: Option 2 - Non-Licensure (ESL-2)⁺

The Area of Emphasis in Teaching English as a Second Language offers two options. Option 2 provides content and pedagogical training for educational professionals who are not licensed teachers, or who are seeking licensure through other means. The purpose of both programs is to prepare teachers who work with learners who enter schools with a language other than English. Both programs may be completed as a Graduate Certificate (21 hours) or may be used as an Area of Emphasis within the M.A. in Education (36 hours). These 21 hours, plus nine additional hours in the M.A. Core, three hours in the M.A. Capstone, and a three hour advisor approved elective, may be used to receive the M.A. in Education.

Plan of Study

Code	Title	Credit Hours
Core Courses		
EDF 621	Educ Research & Writing	3
or EDF 625	Qualitative Research Educ	
EDF 616	Adv Studies Human Develop	3
or EDF 619	Educational Psychology	
Select one of the following:		3
CIEC 534	Appli Software Class Curr Area	
CIEC 600	Instructional Design & Tech	
CIEC 635	Using Internet in Classroom	
Select one of the following:		3
CI 623	Instruct Models Assess Tech	
Approved methods course from Area of Emphasis		
EDF 612	Educational Evaluation	3
Area of Emphasis		
Select one of the following:		18-21
Early Childhood Education (p. 130)		
Elementary Mathematics Specialist (p. 130)		
Individualized Plan of Study (p. 130)		
Instructional Processes and Strategies (p. 130)		
Instructional Technology and Learning (p. 130)		
Mathematics through Algebra I (p. 130)		
School Library Media Specialist (p. 131)		
Teaching English as a Second Language: Option 1 - Licensure (ESL-1) (p. 131)		
Teaching English as a Second Language: Option 2 - Non-Licensure (ESL-2) (p. 131)		
Capstone Experience		
Select one of the following:		0-3
CI 690	Capstone Experience	
Satisfactorily completing a written comprehensive examination and three hours of approved coursework		
Total Credit Hours		33-39

Plans of Study for Areas of Emphasis, Professional Development Programs

Early Childhood Education

ECE Option 1 (PreK-K Licensed)

Code	Title	Credit Hours
CI 559	Multicult Influence in Ed	3
CI 632	Early Childhood Programs (approved methods course in the M.A. Core)	3
CI 633	Adult Involve in Early Ed	3
CI 634	Lang/Cog Early Childhood	3
ECE 530	Preschool Curriculum/Methods	3
ECE 535	Adm Early Child Programs	3
EDF 513	Human Growth Dev Birth-8 Yr	3
Total Credit Hours		21

ECE Option 2 (K-6/K-8 Licensed)

Code	Title	Credit Hours
CI 632	Early Childhood Programs (approved methods course in the M.A. Core)	3
CI 633	Adult Involve in Early Ed	3
CI 634	Lang/Cog Early Childhood	3
ECE 535	Adm Early Child Programs	3
EDF 513	Human Growth Dev Birth-8 Yr	3
CI 630	Practicum Early Childhood Ed	3
Select one of the following:		3
CIEC 534	Appli Software Class Curr Area	
CIEC 600	Instructional Design & Tech	
CIEC 635	Using Internet in Classroom (approved technology course in the M.A. Core)	
Advisor-approved elective		3
Total Credit Hours		24

Elementary Mathematics Specialist

Code	Title	Credit Hours
CIME 500	Math for the Elem Teach I (approved methods course in the M.A. Core)	3
CIME 501	Math for the Elem Tchr II	3
CIME 555	Technical Math for Math Educa	3
CIME 650	Algebra for Math Educator	3
CIME 658	Geometry for Math Educator	3
CIME 673	Elem Math Methds Practice K-6	3
CIEC 534	Appli Software Class Curr Area (approved technology course in the M.A. Core)	3
Advisor-approved elective		3
Total Credit Hours		24

Individualized Plan of Study

Code	Title	Credit Hours
Individually tailored Area of Emphasis		18
Capstone Experience		3
Total Credit Hours		21

Instructional Processes and Strategies

Code	Title	Credit Hours
CI 551	Writing to Learn/Content Area	3
CI 559	Multicult Influence in Ed	3
CI 638	Curriculum Planning	3
CIEC 635	Using Internet in Classroom	3
EDF 610	Trends & Issues in Education	3
Advisor-approved methods elective		3
Total Credit Hours		18

Instructional Technology and Learning

Code	Title	Credit Hours
CIEC 534	Appli Software Class Curr Area (approved technology course in the M.A. Core)	3
CIEC 600	Instructional Design & Tech (approved methods course in the M.A. Core)	3
CIEC 615	Online Course Devel/Delivery	3
CIEC 630	Authoring Systems & Multimedia	3
CIEC 635	Using Internet in Classroom	3
CIEC 699	Final Project in Curr Area	3
Advisor-approved technology elective		3
Advisor-approved elective		3
Total Credit Hours		24

Mathematics Through Algebra I

Code	Title	Credit Hours
CIME 555	Technical Math for Math Educa	3
CIME 556	Finite Math for Math Educa	3
CIME 650	Algebra for Math Educator	3
CIME 657	Precalculus for Math Educa	3
CIME 658	Geometry for Math Educator	3
CIEC 534	Appli Software Class Curr Area (approved technology course in the M.A. Core)	3
CIME 670	Teaching Mathematics (approved methods course in the M.A. Core)	3
CIME 675	Superv Field Prac/Math 5-8	3
or CIME 677	Superv Field Pract/Math 5-12	
Total Credit Hours		24

School Library Media Specialist

Code	Title	Credit Hours
ITL 501	Libraries & the Learn Process	3
ITL 502	Library Mat for Adolsc (approved methods course in the M.A. core)	3
ITL 504	Library Mat for Children	3
ITL 625	Library Organiza & Admin	3
ITL 627	Cataloging & Reference	3
ITL 631	Technology and the Library	3
ITL 650	Library Practice (Field Work)	3
Total Credit Hours		21

Teaching English as a Second Language: Option 1 - Licensure (ESL-1)

Code	Title	Credit Hours
CISL 550	Second Language Acquisition	3
CISL 551	Linguistics for ESL	3
CISL 552	Intercultural Comm/ESL	3
CISL 653	Methods ESL:Language	3
CISL 654	Methods ESL: Literacy (approved methods course in the M.A. Core)	3
CISL 655	Practicum for ESL	3
Select one of the following:		3
CIEC 534	Appli Software Class Curr Area	
CIEC 600	Instructional Design & Tech	
CIEC 635	Using Internet in Classroom (approved technology course in the M.A. Core)	
Advisor-approved elective		3
Total Credit Hours		24

Teaching English as a Second Language: Option 2 - Non-Licensure (ESL-2)

Code	Title	Credit Hours
CISL 550	Second Language Acquisition	3
CISL 551	Linguistics for ESL	3
CISL 552	Intercultural Comm/ESL	3
CISL 653	Methods ESL:Language	3
CISL 654	Methods ESL: Literacy (approved methods course in the M.A. Core)	3
Select one of the following:		3
CIEC 534	Appli Software Class Curr Area	
CIEC 600	Instructional Design & Tech	
CIEC 635	Using Internet in Classroom (approved technology course in the M.A. Core)	
Advisor-approved elective		3
Total Credit Hours		21

Leadership Studies, Ed.D.

This program is designed to offer the opportunity to earn the Doctor of Education (Ed.D.) degree in Educational Leadership. Coursework

is online; 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.

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 (<https://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>). Details of all admission requirements and other pertinent information can be found at www.marshall.edu/lsedd (<https://www.marshall.edu/lsedd/>).

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/lsedd (<https://www.marshall.edu/lsedd/>).

Leadership Studies, M.A. 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. Students completing the program qualify for professional administrative licensure as a PreK-Adul school principal in West Virginia and Ohio. Students from other states should check with their state licensing agencies concerning licensure requirements. Those seeking professional licensure as a school principal in West Virginia must pass the PRAXIS II (5411) and also complete the Evaluation Leadership Institute offered by the West Virginia Center for Professional Development.

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

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 (<https://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 392 on the Miller Analogies Test. Students who take the Graduate Record Examination must have a combined score of 286 (combined verbal and quantitative). Students must hold a Professional Teaching Certificate and have a minimum of two years of teaching experience at the time of admission to the program.

Admission Requirements for Leadership Specialist 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 (<https://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>). Applicants should select the Distance-Only application and under programs, select "Leadership Studies (M.A.): Leadership Specialist" on the application.

In addition to Marshall University's requirements for graduate admission, applicants must have:

- A bachelor's degree from a regionally accredited institution; and
- An undergraduate Grade Point Average (GPA) of 2.75 or higher on a 4.0 scale.

Applicants may be admitted provisionally when a GPA does not meet the minimum requirements at the discretion of the program director. The student will be 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 fully admitted to the degree program.

Plan of Study

Educational Leadership Area of Emphasis

Code	Title	Credit Hours
LS 510	Principalship: Role & Tasks	3
LS 515	Curric and Instr Leadership	3
LS 520	Admin Elem Mdl & Sec Schools	3
LS 530	Human Rel Skills for Leaders	3
LS 600	School Personnel Administra	3
LS 606	Plan Res & Eval for Sch Lead	3
LS 610	Leadership for Sch Improve	3
LS 612	Educ Tech for Administrators	3
LS 630	The School and the Community	3
LS 675	Legal and Policy Issues	3
LS 550	Schools as Systems	3
or LS 661	Internship-Instr Supervision 2	
LS 685	Capstone: Portfolio Assessment	3
Total Credit Hours		36

Leadership Specialist Area of Emphasis

Code	Title	Credit Hours
Core Courses		
LS 615	Leadership in Public Sector	3
LS 625	Human Resources Management	3
LS 632	Human Rel in Public Sec	3
LS 645	Comm Collaborative Plan Mgmt	3
ACE 689	Grant Proposal Writing	3
Elective Courses		
LS 626	Fundraising Management	
LS 628	Nonprofit & Public Sector Orgs	
LS 635	Organizational Theory	
LS 640	Legal Issues NPO & Public	
Capstone		
LS 690	Leadership Capstone Course	3

Leadership Specialist Program Requirements

- A graduate candidate in the program may receive no more than two grades of "C" or below in the required coursework. In the event of a third grade of "C" or below, the student may be dismissed from the program.
- Repeating a course for a higher grade does not negate the existence of the former grade. A student may be dismissed from the program upon earning a third grade of "C" or below, even if the student repeated a course and earned a higher grade.

Literacy Education, Ed.S.

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.

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.

Admission Requirements

Admission Requirements for Area of Emphasis in Literacy Education

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 (<https://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>).

Admission Requirements Certificate Programs

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

Admission to this program is suspended.

Literacy Education Certificate

1. An initial undergraduate degree in education from a regionally accredited college or university; and
2. A valid teaching license

Family Literacy

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

Degree Requirements Area of Emphasis in Literacy Education

Education Specialist degree (Ed.S.) students follow a planned program of study and must maintain a cumulative Grade Point Average (GPA) of 3.0.

Additional Literacy Endorsements and Certificates for Teachers

Programs marked with asterisk (*) may be used as endorsements for teaching reading. Programs marked with a plus sign (+) may be used as graduate certificates.

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.

Family Literacy (12 hours) +

May be used as graduate certificate programs.

Plan of Study

Emphasis in Literacy Education

Code	Title	Credit Hours
Core		
EDF 703	Research Design	3
EDF 625	Qualitative Research Educ	3
or EDF 676	Statistical Methods	
CIEC 700	Technology and Curriculum	3
EDF 711	Survey Research in Education	3
CI 677	Writing Publicatn Prof Ed	3
or HUMN 604	Expository Wrtng for Research	
Area of Emphasis		
CIRG 701	Seminar I	3
CIRG 702	Seminar II	3
CIRG 703	Reading Tests & Techniques	3
or CIRG 704	Advanced Instructional Tech	
CIRG 707	Issues in Reading	3
Capstone		
EDF 679	Problem Report	3
Total Credit Hours		30

Literacy Education Certificate

Code	Title	Credit Hours
CIRG 636	Developmental Reading	3
CIRG 653	Literacy Acquisition	3
CIRG 644	Literacy in the Content Area	3
CIRG 615	Writing in Literacy Curriculum	3
CIRG 622	Literacy Technology	3
CIRG 637	Literacy Assessment	3
Total Credit Hours		18

A series of performance assessments completed as candidates move through the program.

Family Literacy

Code	Title	Credit Hours
CIRG 653	Literacy Acquisition	3
CIRG 651	Prin of Family Literacy	3
CIRG 652	Develop/Eval Fam Lit Prog	3

CI 634	Lang/Cog Early Childhood	3
Total Credit Hours		12

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. (<https://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.
- A valid WV teaching certificate.

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. A minimum of one year of teaching experience or equivalent as a long-term substitute is required by the time of program completion.

This program requires six hours of supervised practicum in CIRG 623 and CIRG 643. Students must earn a grade of "B" or better in CIRG 623 Lit Facilitator Pract and CIRG 643 Tch Strug Readers Practicum and complete a series of performance assessments completed as they 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.

Code	Title	Credit Hours
CIRG 636	Developmental Reading	3
CIRG 644	Literacy in the Content Area	3
CIRG 615	Writing in Literacy Curriculum	3
CIRG 653	Literacy Acquisition	3
CIRG 622	Literacy Technology	3
CIRG 637	Literacy Assessment	3
CIRG 654	Aligning Assess with Instruct	3
CIRG 643	Tch Strug Readers Practicum	3
CIRG 623	Lit Facilitator Pract	3
CIRG 621	Curr Issues & Prob Reading	3
Select two electives, chosen in consultation with the program advisor.		6
Total Credit Hours		36

This program requires six hours of supervised practicum and a series of performance assessments completed as candidates move through the program.

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. Applicants from states other than West Virginia should verify eligibility for added endorsements through their state's Department of Education.

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

Code	Title	Credit Hours
CIRG 636	Developmental Reading	3
CIRG 653	Literacy Acquisition	3
CIRG 644	Literacy in the Content Area	3
CIRG 615	Writing in Literacy Curriculum	3
CIRG 622	Literacy Technology	3
CIRG 637	Literacy Assessment	3

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

Code	Title	Credit Hours
CIRG 653	Literacy Acquisition	3
CIRG 651	Prin of Family Literacy	3
CIRG 652	Develop/Eval Fam Lit Prog	3
CI 634	Lang/Cog Early Childhood	3

Program Evaluation, Certificate

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.

Admission Requirements

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 Program Plan and Evaluation, EDF 620 Mixed Methods Research, or EDF 679 Problem Report). Students may apply credits earned in the proposed certificate to graduate degrees in COEPD 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 COEPD and/or the Graduate Humanities Program.

Plan of Study

Code	Title	Credit Hours
Required Courses		
CI 627	Program Plan and Evaluation	3
EDF 620	Mixed Methods Research	3
EDF 679	Problem Report	1-3

Local Cultural Literacy/Competency Courses

Select one of the following:

CULS 610	Seminar in Appalachian Culture
CULS 611	Appal Std: Themes & Voices
CULS 612	Time & Place in Appalachia

Total Credit Hours

7-9

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 39 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 (<https://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. Students must pass the Praxis II Specialty Area Test in School Psychology prior to internship. In addition, students must complete a thesis or program evaluation before graduation.

Two-C Rule for this program: In the event a graduate candidate receives a second grade of C or below (including No Credit) in the specialist-level school psychology program, he or she will be placed on a remediation plan and be required to retake one course selected by his or her advisor. In the event a candidate receives a third grade of C or lower in the specialist program, the candidate will then be dismissed from the program. Dismissal will occur even if the second and third grades of C or below (including No Credit) are earned

1. simultaneously during the same semester or
2. in the same course (for example, a student received a C in SPSY 618 Dir Svc I Instruct & Bmod the first semester and again receives a C during the retake attempt).

Note: Due to the significance of content in SPSY 618 Dir Svc I Instruct & Bmod, SPSY 622 Data-Based Decision II, and SPSY 624 Data-Based Decision III to the field of school psychology, all grades of C or below must be retaken regardless of the candidate's other course grades.

Additionally, candidates with graduate GPAs that fall below a 3.0 will be dismissed.

Plan of Study

Code	Title	Credit Hours
Requirements		
SPSY 603	Prof Comp II School Psych	3
SPSY 620	Ind Svc II Prevention	3
SPSY 622	Data-Based Decision II	3
SPSY 624	Data-Based Decision III	3
SPSY 720	Counseling With Youth Ad	3
SPSY 738	Practicum I	3
SPSY 739	Practicum II	3
Take Praxis II Specialty Examination in School Psychology		
SPSY 745	Internship in Sch Psych	12
SPSY 750	Ed S Thesis Research	3
or SPSY 751	Program Evaluation	
CIRG 636	Developmental Reading	3
Defend Thesis		
Total Credit Hours		39

School Superintendent, Licensure

This program is designed for students who have completed a master's degree in education and provides the coursework to obtain professional administrative licensure as a Pre-kindergarten through Adult school principal in West Virginia. Students from other states should contact their local departments of education for licensure requirements prior to applying for this program. Those seeking professional administrative licensure as a school principal in West Virginia must pass the PRAXIS 5412 Educational Administration and

Supervision test. State licensure also requires completion of the Evaluation Leadership Institute from the West Virginia Department of Education when hired as a school principal.

Applicants should follow the graduate admission process in this catalog and on the Marshall website www.marshall.edu/admissions/ apply (<https://www.marshall.edu/admissions/apply/>). Applicants should apply on the Distance-Only application and select "Certificate (PM): School Principalship" on the application.

In addition to Marshall University's requirements for graduate admission, applicants must have:

- A master's degree in education from a CAEP-accredited institution with an overall graduate Grade Point Average (GPA) of 3.0 on a 4.0 scale.
- One of the following:
 - A professional Teaching Certificate;
 - A Career and Technical Education Teaching Certificate; or
 - A Student Support Certificate in School Counseling.
- A minimum of two years of teaching or school counseling experience.

Applicants may be admitted conditionally for one term while test requirements are pending. Applicants may be admitted provisionally when a GPA or test score does not meet the minimum requirements at the discretion of the program director. All conditional admission requirements must be completed for full admission status and to register for subsequent sessions.

Code	Title	Credit Hours
LS 510	Principalship:Role & Tasks	3
LS 610	Leadership for Sch Improve	3
LS 612	Educ Tech for Administrators	3
LS 630	The School and the Community	3
LS 675	Legal and Policy Issues	3
LS 660	Capstone: School Management	3
Total Credit Hours		18

- Every student must designate a practicing principal who agrees to act as his or her mentor during the program.
- Field experiences are a required component of this program and are embedded in program classes. Some field experiences are embedded in the program classes, and the remainder are completed in the LS 660 Capstone: School Management course.
- A graduate certificate candidate in the program may receive no more than one grade of "C" in the required coursework. In the event of a second grade of "C" or below, the student may be dismissed from the program.
- Repeating a course for a higher grade does not negate the existence of the former grade. A student may be dismissed from the program upon earning a second grade of "C" or below, even if the student repeated a course and earned a higher grade.

Social Service and Attendance, Certificate/Licensure

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. In addition to the coursework requirements, students who do not hold a Professional Teaching Certificate or a master's degree are required to pass the PRAXIS 5752 Core Academic Skills for Educators test for licensure.

Admission Requirements

Applicants should follow the graduate admissions process in this catalog and on the Marshall website at <https://www.marshall.edu/admissions/apply/>. Applicants should apply on the graduate application and select "Certificate (PB): Social Service and Attendance" on the application form.

In addition to Marshall University's requirements for graduate admission, applicants must have taken either the Miller Analogies Test (MAT), a minimum score of 392 is required, or the Graduate Record Examination (GRE), a minimum combined score of 286 (verbal plus quantitative) is required, within the last five years; or have a master's degree from a regionally-accredited institution.

Applicants may be admitted conditionally for one term while test requirements are pending. Applicants may be admitted provisionally when a GPA or test score does not meet the minimum requirements at the discretion of the program director. All conditional admission requirements must be completed for full admission status and to register for subsequent semesters.

Every student must designate a practicing supervisor or attendance director who agrees to act as his/her mentor during the program. Field experiences are a required component of this program and are embedded in program classes.

A graduate certificate candidate in the program may receive no more than one grade of "C" in the required coursework. In the event of a second grade of "C" or below, the student may be dismissed from the program.

Repeating a course for a higher grade does not negate the existence of the former grade. A student may be dismissed from the program upon earning a second grade of "C" or below, even if the student repeated the course and earned a higher grade.

Plan of Study

Code	Title	Credit Hours
COUN 670 or COUN 673	Interv Current Issues Sch Coun Child Adol Parents	3
LS 675	Legal and Policy Issues	3
LS 691	The Attendance Director	3
LS 692	Capstone: School Social Serv	3
Total Credit Hours		12

Special Education, M.A. 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.

Admission Requirements 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/ (<http://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.
- 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)

Non-Education Certification Program

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.

Program Requirements 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 certification 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.

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.

Plan of Study
M.A. in Special Education

Code	Title	Credit Hours
Master's Degree Requirements		
CISP 611	Special Ed Research I	3
CISP 615	Special Ed Research II	3
CISP 627	Issues Special Education	3
or CISP 629	Special Education Seminar	
Special Education Core		
CISP 520	Intro to Exceptional Child	3
CIEC 534	Appli Software Class Curr Area	3
CISP 606	Reading Strat Except Student	3
CISP 607	Math Strat Except Students	3
CIRG 644	Literacy in the Content Area	3
CISP 626	Diagnostic-Clin Practices	3
Certification Area		
Select one of the following:		9-15
Deaf and Hard of Hearing (p. 138)		
Vision Impaired (p. 138)		
Multicategorical (p. 138)		
Electives		
Select 0 - 9 credit hours		0-9
Total Credit Hours		36-51

Certification Areas
Deaf and Hard of Hearing

Special education core not required.

Code	Title	Credit Hours
CIDH 501	American Sign Language I	3
CIDH 502	American Sign Language II	3
CIDH 504	Auditory Habilitation	3
CIDH 505	Intro Deaf & Hard of Hearing	3
CIDH 506	Curr & Meth Deaf/Hard of Hear	3

CIDH 601	Teach Intern & Pract I (Deaf/Hard of Hearing) (Residential)	3
CIDH 602	Tech Intern & Pract II (Deaf/Hard of Hearing) (Local School District)	3
CIDH 607	Dev & Remed of Rdg/Writ/Disc (for the Deaf and Hard of Hearing)	3
CISP 607	Math Strat Except Students	3
CIEC 534	Appli Software Class Curr Area	3
Total Credit Hours		30

Vision Impaired

Special education core not required.

Code	Title	Credit Hours
CIVI 500	Intro Visual Impair	3
CIVI 501	Reading/Writing Strat Vis Imp	3
CIVI 502	Anat Phys Human Vis Sys	3
CIVI 503	Assess/Prog Plan Vis Impaired	3
CIVI 504	Assess/Plan Vis Imp Add'l Dis	3
CIVI 505	Braille	3
CIVI 600	Math Methods/Visual Impairment	3
CIVI 601	Practicum Vis Imp I	1-6
CIVI 602	Pract in Visual Imp II	3
CIVI 603	Orientation & Mobility Skills	3
CIEC 534	Appli Software Class Curr Area	3
Total Credit Hours		31-36

Multicategorical

Code	Title	Credit Hours
CISP 553	Characteristics Methods ID	3
CISP 647	Char/Mthd Spec Lrn Disabilties	3
CISP 645	Characteristics Methods E/BD	3
CISP 655	Field Exp: Multi-Categorical	3
Total Credit Hours		12

Preschool Special Education

Code	Title	Credit Hours
General Education		
EDF 621	Educ Research & Writing	3
or EDF 625	Qualitative Research Educ	
CISP 627	Issues Special Education	3
or CISP 629	Special Education Seminar	
Early Childhood Education		
CI 632	Early Childhood Programs	3
CI 634	Lang/Cog Early Childhood	3
Special Education		
CISP 520	Intro to Exceptional Child	3
CISP 529	Intro to Develop Disabilities	3
CISP 554	Families of Except Students	3
CISP 661	Intro Preschool Sp Ed	3
CISP 663	Dev Issue Preschool Hand	3
CISP 665	Assess Preschool Sp Ed	3

CISP 666	Curr/Meth Preschool Sp Ed	3
CISP 673	Field Exp Preschool Sp Ed	3
CISP 674	Clinical: Preschool Special Ed	3
Total Credit Hours		39

Due to the nature of a student's undergraduate program the total required in Preschool Special Education may only be 36.

Non-Education Certification Program

In addition to the Special Education Core and Certification Area course requirements, students in the Non-Education Certification program must complete EDF 619 Educational Psychology and EDF 616 Adv Studies Human Develop for certification. Additional master's degree requirements are the same as for all other Special Education master's degree programs.

Supervisor of Instruction, Licensure

Marshall University's program is currently being revised. Contact the Leadership Studies program for information.

Teaching, M.A.T. 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.

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.

Program Options and Degree Requirements:

Master of Arts in Teaching Grades PreK-Adult

- Art Education
- Music Education
- Wellness

Grades 5-Adult

- English
- Mathematics
- General Science
- Social Studies

Grades 9-Adult

- Biology
- Chemistry
- Physics

Post-Baccalaureate Teacher Certificate 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
- Mathematics, grades 5-Adult
- Music, grades PreK-Adult
- Physics, grades 9-Adult
- Social Studies, grades 5-Adult
- Wellness, grades PreK-Adult

Admission 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 (<http://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, a GPA of 2.80 in the content area, and must meet the Praxis Core requirement (see below for exceptions). Applicants who have an overall GPA of 2.5 or above, but below 2.80, may be granted provisional admission. Provisionally admitted applications will be granted full admission upon successful completion of 12 hours toward the approved

plan of study with a GPA of 3.25 or higher, assuming that all other admission requirements are met.

3. 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.

Persons who meet one or more of the following criteria may be exempt from the Praxis® Core Academic Skills for Educators (Core).

1. hold certification through the NBPTS;
2. hold or have held a West Virginia Professional Certificate;
3. hold a master's degree from an accredited institution of higher education;
4. attained, from a single administration, a qualifying score on the American College Test (ACT®) or Scholastic Achievement Test (SAT®) or Graduate Record Examinations (GRE®) as listed below:

a. ACT

- i. a composite score of 25 (prior to November, 1989)
- ii. a composite score of 26 on the ACT enhanced (effective November 1989),

b. SAT

- i. a combined score of 1035 (prior to April 1995)
- ii. a combined score of 1125 on the re-centered SAT (effective April 1995),
- iii. a score of 1170 on the revised SAT using the combined Critical Reading and Math score (effective March 2005)
- iv. a score of 1240 on the New SAT using the combined Evidence-Based Reading and Writing score and Math score (effective May 2016-the Present)

c. GRE

- i. a score of combined score of 800 verbal and quantitative (prior to November, 2011)
- ii. at least a score of 286 (November, 2011 – the present)

5. hold a valid out-of-state certificate in the content area;
6. successfully completed three years of experience within the last seven years in one or a combination of specializations recognized on an out-of-state professional certificate valid during those three years

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 Exper, 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 MAT Level I Clinical Exper and EDF 637 MAT Level II Clinical Exper Level I and II Clinical Experiences; and
- 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.

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 (<http://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 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. Applicants who have an overall GPA of 2.5 or above, but below 2.80, may be granted provisional admission. Provisionally admitted applications will be granted full admission upon successful completion of 12 hours toward the approved plan of study with a GPA of 3.25 or higher, assuming that all other admission requirements are met.
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. Persons who meet one or more of the following criteria may be exempt from the Praxis® Core Academic Skills for Educators (Core).

1. hold certification through the NBPTS;
2. hold or have held a West Virginia Professional Certificate;

3. hold a master's degree from an accredited institution of higher education;

4. attained, from a single administration, a qualifying score on the American College Test (ACT®) or Scholastic Achievement Test (SAT®) or Graduate Record Examinations (GRE®) as listed below:

a. ACT

- i. a composite score of 25 (prior to November, 1989)
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- iii. a score of 1170 on the revised SAT using the combined Critical Reading and Math score (effective March 2005)
- iv. a score of 1240 on the New SAT using the combined Evidence-Based Reading and Writing score and Math score (effective May 2016-the Present)

c. GRE

- i. a score of combined score of 800 verbal and quantitative (prior to November, 2011)
- ii. at least a score of 286 (November, 2011 – the present)

5. hold a valid out-of-state certificate in the content area;
6. successfully completed three years of experience within the last seven years in one or a combination of specializations recognized on an out-of-state professional certificate valid during those three years

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. 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.
8. In the last semester of the program students will be enrolled in EDF 677 MAT Level III Clinical Exper, 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 MAT Level I Clinical Exper and EDF 637 MAT Level II Clinical Exper;
 - Level I and II Clinical Experiences
 - completion of all PBC coursework and the Praxis content test(s).
9. 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.

10. 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

Post-Baccalaureate Teacher Certificate Program

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.

Plan of Study

Master of Arts in Teaching

Code	Title	Credit Hours
Foundations of Education and Technology		
<i>Research and Writing</i>		
EDF 621	Educ Research & Writing	3
or EDF 625	Qualitative Research Educ	
<i>Social and Cultural Foundations</i>		
EDF 665	Sociology of Amer Schools	3
or EDF 615	Hist of Education in US	
<i>Development or Psychology</i>		
EDF 616	Adv Studies Human Develop	3
or EDF 619	Educational Psychology	
<i>Instructional Technology</i>		
CIEC 534	Appli Software Class Curr Area	3
or CIEC 635	Using Internet in Classroom	
<i>Evaluation or Assessment</i>		
EDF 612	Educational Evaluation	3
Curriculum and Instruction		
CISP 510	Instructional Prac/Excep Child	3
CISP 520	Intro to Exceptional Child	3
CI 515	Int Meth & Mat: Sec Ed	3
EDF 537	MAT Level I Clinical Exper ¹	0
EDF 637	MAT Level II Clinical Exper	0
CI 549	Instr & Clrm Mgt Sec Ed	3
CI 624	Adv Instruction Strategy	3
or CI 623	Instruct Models Assess Tech	
CIRG 644	Literacy in the Content Area	3
EDF 677	MAT Level III Clinical Exper ²	3

In addition to the preceding courses, students must also complete all courses in their teaching specialization.

Total Credit Hours 36

- ¹ Lab to accompany CI 515 Int Meth & Mat: Sec Ed
² Requires minimum of 90% completion of content courses and passing score(s) on the Praxis content examination(s).

Post-Baccalaureate Teacher Certificate

Code	Title	Credit Hours
Foundations of Education		
EDF 616 or EDF 619	Adv Studies Human Develop Educational Psychology	3
EDF 612 or EDF 636	Educational Evaluation Advanced Classroom Assessment	3
Curriculum and Instruction		
CISP 510	Instructional Prac/Excep Child	3
CISP 520	Intro to Exceptional Child	3
CIRG 644	Literacy in the Content Area	3
EDF 537	MAT Level I Clinical Exper ¹	0
CI 515	Int Meth & Mat: Sec Ed	3
EDF 637	MAT Level II Clinical Exper	0
Technology		
Select one of the following:		3
CIEC 534	Appli Software Class Curr Area	
CIEC 600	Instructional Design & Tech	
CIEC 635	Using Internet in Classroom	
Supervised Student Teaching		
EDF 677	MAT Level III Clinical Exper ²	3
In addition to the preceding courses, students must also complete all courses in their teaching specialization.		
Total Credit Hours		24

- ¹ Lab to accompany CI 515 Int Meth & Mat: Sec Ed
² Requires minimum of 90% completion of content courses and passing score(s) on the Praxis content examination(s).

Violence, Loss and Trauma Counseling, Graduate Certificate

Graduate Certificate of Advanced Studies in Violence, Loss and Trauma Counseling (VoLT certificate)

Applicants who have obtained a master's degree in behavioral health disciplines (counseling, psychology, school psychology, social work, etc.) or who are concurrently enrolled in one of these programs are eligible to apply for the VoLT certificate.

Applicants who have obtained a master's degree in behavioral health disciplines (counseling, psychology, school psychology, social work,

etc.) or who are concurrently enrolled in one of these programs are eligible to apply for the VoLT certificate. They must follow one of the following routes:

- Students concurrently enrolled at Marshall University need only submit a Secondary Program Request form once they have completed the interview with counseling program faculty.
- Master's students at universities other than Marshall University may apply in the same way as one would apply for the full degree with the exception of designating "Professional Development - Certificate in Violence, Loss, and Trauma" as their intended program of study. They will submit the following materials:
 - An application
 - An application fee
 - A transcript from their current university
 - Two (2) references
 - A written statement of goals which speaks to their desire to work with trauma victims (see the Guidelines for Written Statement on the Program website).
 - A letter from their program chair or director as evidence of their good standing in their current degree program.
- Applicants who completed their degree in Counseling or a related Behavioral Health field at Marshall University may apply designating the "Professional Development - Certificate in Violence, Loss, and Trauma" and need to submit:
 - An application
 - An application fee
 - A written statement of goals which speaks to their desire to work with trauma victims (see the Guidelines for Written Statement on the Program website).

(Note: Official MU transcripts will be obtained through the Banner system.)

- Applicants who have completed their degree outside of Marshall University and wish to take the Certificate courses must apply in the same way as one would apply for the full degree with the exception of designating "Professional Development - Certificate in Violence, Loss, and Trauma" as their intended program of study.
- An application
- An application fee
- A transcript from the university where they completed their master's degree
- Two (2) references
- A written statement of goals which speaks to their desire to work with trauma victims (see the Guidelines for Written Statement on the program website).

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 of Advanced Studies 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 of Advanced Studies 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

Code	Title	Credit Hours
<i>Required Courses</i>		9
COUN 556	Death & Grief Counseling ¹	
COUN 654	Family Violence ¹	
COUN 682	Tr in Trauma Recovery ¹	
<i>Select 6 hours from the following</i>		6
COUN 655	Coun Victims Dom Violence	
COUN 683	Psychophys of Trauma	
COUN 684	Treating Complex Trauma & Loss	
COUN 685	Military Cult & Treat Vets	
Total Credit Hours		15

¹ Required for the certificate.

College of Engineering and Computer Sciences

Contacts: Dr. David Dampier, Interim Dean;

Website: <http://www.marshall.edu/cecs> (<http://www.marshall.edu/cecs/>)

cecs@marshall.edu

Programs

- Accessibility Awareness, Graduate Certificate (p. 160)
- Bioinformatics, Graduate Certificate (p. 160)
- Civil and Environmental Engineering, M.S.E. (p. 160)
- Computer Science, M.S. (p. 162)
- Cybersecurity, M.S. (p. 163)
- Data Science, M.S. (p. 164)
- Electrical and Computer Engineering M.S.E.E. (p. 166)
- Engineering Management, M.S.E. (p. 167)
- Environmental Science, Graduate Minor (p. 169)
- Environmental Science, M.S. (p. 169)
- Information Security, Graduate Certificate (p. 170)
- Information Systems, M.S. (p. 170)
- Mechanical Engineering, M.S.M.E. (p. 171)
- Safety, M.S. (p. 172)
- Safety, Minor (p. 173)
- Technology Management, Graduate Certificate (p. 173)
- Technology Management, M.S. (p. 173)
- Transportation and Infrastructure Engineering, M.S.E. (p. 175)

Courses

Civil Engineering

CE 534 Geometric Highway Design

3 Credit hours

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.

Grade Mode: Normal Grading Mode

CE 538 Pavement Design

3 Credit hours

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.

Grade Mode: Normal Grading Mode

CE 602 Structural Mechanics

3 Credit hours

Grade Mode: Normal Grading Mode

CE 604 Buckling of Struct Mem &

3 Credit hours

Grade Mode: Normal Grading Mode

CE 605 Structural Vibrations

3 Credit hours

Grade Mode: Normal Grading Mode

CE 611 Plastic Design

3 Credit hours

Grade Mode: Normal Grading Mode

CE 612 Advanced Steel Design

3 Credit hours

Background of AISC 360, emphasizing building applications. Analysis method for second-order effects. Composite member design. Plate girders. Splices and bracing connections. Eccentric connections. Wind and seismic applications.

Grade Mode: Normal Grading Mode

CE 614 Advanced Concrete Design**3 Credit hours**

Background of ACI 318, emphasizing building applications. Precast elements. Moment frames and shear walls. Continuous construction. Foundations and earth-retaining structures. Two-way slab design methods. Strut-and-tie analogies. Column supported slabs. Modern reinforced concrete design procedures; comparison of standard design codes; review of research on behavior of reinforced concrete structures; projection to future changes in design and construction practices.

Grade Mode: Normal Grading Mode**CE 616 Prestressed Concrete Design****3 Credit hours**

Behavior and design of prestressed concrete beams, columns, and beam-columns, emphasizing highway bridge applications. Methods of prestressing and loss estimation for precast and cast-in-place elements. Design of prestressed concrete structures; design for flexure, shear, and torsion; camber and deflections; continuity; connections; fire rating; and review of research and projection to changes in practices.

Grade Mode: Normal Grading Mode**CE 618 Bridge Engineering****3 Credit hours**

Analysis, design, and rating of bridges according to AASHTO specifications, emphasizing steel superstructures. Detailing of elements and systems based on strength, serviceability, constructability, and fatigue requirements. An overview of design of highway bridges and an introduction to maintenance of highway bridges; history of bridge engineering, types, design rules, loads, inspection, rating and preventive maintenance, aesthetics.

Pre-req: CE 616.**Grade Mode:** Normal Grading Mode**CE 621 Advanced Soil Mechanics****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 622 Foundation Engineering 2****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 623 Advanced Soil Testing Theory****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 624 Design of Earth Structures****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 626 Groundwater Investigation****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 631 Geometric Design of Highways****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 632 Highway Materials 1****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 633 Highway Materials 2****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 634 Traffic Engineering****3 Credit hours**

Design and application of signs, markings, and signals; timing of isolated and interconnected signals; speed regulation on one-way streets; capacity and analysis of highway facilities.

Grade Mode: Normal Grading Mode**CE 635 Eval of Transportation Systems****3 Credit hours**

Concepts of transportation economic analysis, transportation costs and benefits, needs studies, finance and taxation, methods of evaluation of plans and projects, environmental impact assessment.

Grade Mode: Normal Grading Mode**CE 636 Transportation Planning****3 Credit hours**

Techniques used to plan urban transportation systems; data collection, trip generation, trip distribution, mode choice, traffic assignment, modeling and evaluation techniques; travel demand modeling.

Grade Mode: Normal Grading Mode**CE 637 Highway Safety Engineering****3 Credit hours**

Traffic safety studies including: crash analysis, control and geometry improvements, hazard and countermeasures identification, before-and-after studies; data collection and computer tools for highway traffic and safety evaluation.

Grade Mode: Normal Grading Mode**CE 639 Infrastructure Management****3 Credit hours**

Application of decision analysis, mathematical programming, performance modeling and various heuristics to develop management plans for transportation infrastructure assets, primarily focusing on highway pavements and bridges.

Grade Mode: Normal Grading Mode**CE 650 Special Topics Civil Engr****3 Credit hours**

Selected topics of special and current interest to civil engineers.

Grade Mode: Normal Grading Mode**CE 651 Spec Topics Civil Engr****3 Credit hours**

Selected topics of special and current interest to civil engineers.

Grade Mode: Normal Grading Mode**CE 652 Spec Topics Civil Engr****3 Credit hours**

Selected topics of special and current interest to civil engineers.

Grade Mode: Normal Grading Mode**CE 680 Special Topics****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 681 Water & Wastewater Engr Dsgn 1****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 682 Water & Wastewater Engr Dsgn 2****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 684 Biol & Physiochem Process****3 Credit hours****CE 685 Hydrology****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 686 Hyd/Sedi of Surface Mined Land****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 687 Engineering Geology****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 690 Special Topics in Civil Engr****1-6 Credit hours****Grade Mode:** Normal Grading Mode**CE 715 Adv Matrix Meth of Struct Anal****3 Credit hours****Grade Mode:** Normal Grading Mode**CE 790 Advanced Independent Study****1-6 Credit hours****Grade Mode:** Normal Grading Mode**CE 799 Research****1-12 Credit hours****Grade Mode:** Normal Grading Mode**Computer & Info Security****CYBR 500 Computer Security Design****3 Credit hours**

The course covers technical and analytical skills to implement comprehensive computer security that encompass designing secure systems, information security, protecting information assets, managing computer security, risk mitigation strategies, and incident response.

Grade Mode: Normal Grading Mode

CYBR 510 Intro to Cybersecurity**3 Credit hours**

This course provides an overview of the cybersecurity field, the basic foundations of the current technology and its impacts along with the predominant threat components and remediation.

Grade Mode: Normal Grading Mode

CYBR 530 Cybersec Policies & Mgmt**3 Credit hours**

The course covers risk management, integrating continuous monitoring and real-time security solutions with information systems to improve situational awareness and deployment of countermeasures.

Grade Mode: Normal Grading Mode

CYBR 535 Cyber Risk**3 Credit hours**

The functions and purposes of the latest developments in cybersecurity are covered. Topics include design, implementation, testing industrial networks and applications to ensure their security and reliability.

Pre-req: CYBR 510 with a minimum grade of D.

Grade Mode: Normal Grading Mode

CYBR 542 Cyber Operations**3 Credit hours**

Study of various concepts and aspects in choosing, deploying, supporting, troubleshooting, and securing various local and distributed components of cyber operation.

Pre-req: CYBR 530 with a minimum grade of D.

Grade Mode: Normal Grading Mode

CYBR 615 Cyber Vulnerability Assess**3 Credit hours**

This course focuses on the complete cycle of enterprise security from identifying vulnerabilities, detecting application exploitation and post exploitation mitigations and analysis for an enterprise level cyber infrastructure.

Grade Mode: Normal Grading Mode

CYBR 620 Cyberwarfare**3 Credit hours**

The course covers both offensive and defensive techniques pertaining to cybersecurity from techniques to find vulnerabilities and analyze the likelihood of an attack to developing solutions to secure cyber infrastructure.

Grade Mode: Normal Grading Mode

CYBR 625 Applied Cryptography**3 Credit hours**

This course introduces fundamentals of cryptography, including classical ciphers, Shannon's perfect secrecy, DES, AES, public-key crypto (RSA), as well as advanced cryptographic schemes.

Grade Mode: Normal Grading Mode

CYBR 680 Research in Cybersecurity**3 Credit hours**

This course covers various research methods and current significant findings in the field of cybersecurity.

Pre-req: CYBR 510 with a minimum grade of D.

Grade Mode: Credit/No Credit Grade Only

CYBR 681 Thesis**3 Credit hours**

Investigate a research problem of theoretical interest and practical value under mentorship of a cybersecurity faculty.

Pre-req: CYBR 680 with a minimum grade of D.

Grade Mode: Credit/No Credit Grade Only

CYBR 685 Independent Study**1-4 Credit hours**

Faculty supervised, individualized course of study.

Grade Mode: Normal Grading Mode

CYBR 698 Internship**1-6 Credit hours**

Supervised work experience in Cybersecurity.

Grade Mode: Credit/No Credit Grade Only

Computer Science**CS 502 Computer Architecture****3 Credit hours**

Design and analyze structure of major hardware components of computers including: ALU, instruction sets, memory hierarchy and caching, parallelism through multicore and many core, GPGPUs, storage systems and interfaces.

Grade Mode: Normal Grading Mode

CS 504 High Performance Computing**3 Credit hours**

Learn how to develop highly optimized applications for multi-core processors and clusters using software tools, parallel algorithms, performance profilers, and programming constructs in MPI, OpenMP, MapReduce, CUDA, and OpenCL.

Grade Mode: Normal Grading Mode

CS 505 Computing for Bioinformatics**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CS 510 Advanced Database Systems**3 Credit hours**

This course introduces advanced topics in database systems including distributed systems, distributed databases, Big Data, cloud service, semantic web, web services, information security & privacy, and electronic commerce.

Grade Mode: Normal Grading Mode

CS 511 Advanced Programming**3 Credit hours**

The course covers advanced topics in Python programming including the use of parallel computation and GPU acceleration and investigate how to exploit frameworks such as Hadoop and Spark.

Grade Mode: Normal Grading Mode

CS 512 Embedded Systems**3 Credit hours**

The design of systems containing embedded computers. Micro-controller technology, assembly language and C programming, input/output interfacing, data acquisition hardware, interrupts, and timing. Real-time operating systems and application programming. Application examples.

Grade Mode: Normal Grading Mode

CS 515 Data Mining**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CS 540 Digital Image Processing**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CS 550 Information Retrieval**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CS 552 Natural Lang Processing	3 Credit hours	CS 615 Software Testing	3 Credit hours
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.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CS 580 Special Topics	1-4 Credit hours	CS 620 Applied Algorithms	3 Credit hours
Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CS 581 Special Topics	1-4 Credit hours	CS 625 AI Principles and Methods	3 Credit hours
Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CS 582 Special Topics	1-4 Credit hours	CS 630 Machine Learning	3 Credit hours
Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.		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 processing.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CS 583 Special Topics	1-4 Credit hours	CS 645 Advanced Topics Bioinformatics	3 Credit hours
Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CS 600 Advanced Web Technology	3 Credit hours	CS 650 Special Topics	1-4 Credit hours
This course introduces modern web technologies and covers the concepts, practices, and technologies to design, develop, and manage scalable, reliable and secure web applications using client side and server side programming, mobile technology, web services, rest services, and cloud services that are accessible to a large number of users.		Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CS 601 The Internet of Things	3 Credit hours	CS 651 Special Topics	1-4 Credit hours
This course covers the Internet of Things (IoT) Technologies. The course includes advanced topics in wireless networking technologies, mobile networks, software and hardware design for IoT applications and systems. In addition, this course offers advanced topics in cybersecurity.		Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CS 602 Cloud Computing	3 Credit hours	CS 652 Special Topics	1-4 Credit hours
Study of emerging and advanced topics in Cloud Computing including theory and application development in cloud and understand the ways of increasing quality of services for hosted applications.		Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CS 605 Software Specifications	3 Credit hours	CS 653 Special Topics	1-4 Credit hours
Study of software specification and verification technologies that facilitate: semantic reasoning; and verification of development artifacts including functional models, architecture, and source-code implementations.		Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CS 610 Software Design	3 Credit hours	CS 660 Big Data Systems	3 Credit hours
Study of approaches to software design that meet availability, manageability, maintainability, performance, reliability, scalability, and securability goals. Emphasis is on object-oriented analysis and design, design patterns and metrics.		Learn high performance computing architectures and methods for developing and querying databases for Big Data.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
		CS 670 Visual Analytics	3 Credit hours
		Study of approaches, algorithms, and tools for Big Data exploration, analysis, and interpretation to enable novel discoveries and innovation. Integrating analytic capabilities of computers and domain knowledge of human analysts.	
		Grade Mode: Normal Grading Mode	

CS 681 Thesis**1-6 Credit hours**

Investigate a research problem of theoretical interest and practical value under mentorship of a computer science faculty.

Attributes: No Textbook Required

Grade Mode: Credit/No Credit Grade Only

CS 685 Independent Study**1-4 Credit hours**

Pursue faculty supervised, individualized course of study of a topic which is not currently a part of the Computer Science graduate curriculum.

Grade Mode: Normal Grading Mode

CS 686 Independent Study**1-4 Credit hours**

Pursue faculty supervised, individualized course of study of a topic which is not currently a part of the Computer Science graduate curriculum.

Grade Mode: Normal Grading Mode

CS 687 Independent Study**1-4 Credit hours**

Pursue faculty supervised, individualized course of study of a topic which is not currently a part of the Computer Science graduate curriculum.

Grade Mode: Normal Grading Mode

CS 688 Independent Study**1-4 Credit hours**

Pursue faculty supervised, individualized course of study of a topic which is not currently a part of the Computer Science graduate curriculum.

Grade Mode: Normal Grading Mode

CS 690 Comprehensive Project**3 Credit hours**

Develop expertise in an emerging area of computer science through guided study under faculty mentorship.

Attributes: No Textbook Required

Grade Mode: Credit/No Credit Grade Only

CS 698 Internship**1-3 Credit hours**

Supervised work experience in computer science or related fields.

Attributes: No Textbook Required

Grade Mode: Credit/No Credit Grade Only

Electrical Engineering**EE 502 Instrumentation****3 Credit hours**

Grade Mode: Normal Grading Mode

EE 503 Power Systems**3 Credit hours**

Grade Mode: Normal Grading Mode

EE 504 Principles and Practices-EE**2 Credit hours**

Grade Mode: Normal Grading Mode

EE 510 Design Digital Systems**3 Credit hours**

This course provides fundamental understanding of Digital circuits. Students learn the essentials of digital circuit operation, design and simulate digital circuits using the techniques of practicing electrical and computer engineers.

Grade Mode: Normal Grading Mode

EE 511 Analog Computation**3 Credit hours**

Grade Mode: Normal Grading Mode

EE 514 Linear Systems**3 Credit hours**

Grade Mode: Normal Grading Mode

EE 515 Digital Signal Processing**3 Credit hours**

Grade Mode: Normal Grading Mode

EE 529 Linear Systems & Control**3 Credit hours**

The course provides a rigorous introduction to the analysis and control of linear dynamical systems in the time domain. The course introduces the fundamentals of linear spaces and linear operator theory.

Grade Mode: Normal Grading Mode

EE 530 Cyber-Physical Systems**3 Credit hours**

This course provides an introduction to modeling and analysis of cyber-physical systems. Several models of continuous-time systems and discrete-time systems are introduced.

Grade Mode: Normal Grading Mode

EE 535 Power System Protection**3 Credit hours**

This course covers the power system faults and application of relays for power system protection. Symmetrical components as applied fault currents. Introduction to digital filtering, microprocessor, computer simulation for relays.

Grade Mode: Normal Grading Mode

EE 585 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

EE 586 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

EE 587 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

EE 588 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

EE 601 Power Systems Analysis**3 Credit hours**

Grade Mode: Normal Grading Mode

EE 602 Random Signals & Noise**3 Credit hours**

This course provides an introduction to the fundamentals of random variables, random signals, and simulation of random phenomena.

Grade Mode: Normal Grading Mode

EE 603 Protective Relaying in Powr Sys**3 Credit hours**

Grade Mode: Normal Grading Mode

EE 604 Electrical Machinery**3 Credit hours**

Grade Mode: Normal Grading Mode

EE 605 Comptr Meth in Power Sys Only**3 Credit hours**

Grade Mode: Normal Grading Mode

EE 606 Electrical Analysis**3 Credit hours**

This course covers Laplace transform for boundary-value problem, applications to control theory, frequency response of ordinary differential equations, linear algebra techniques; eigenvalue analysis of linear systems and in multivariate optimization.

Grade Mode: Normal Grading Mode

EE 607 Adv Electrical Engr**3 Credit hours**

This course covers complex functions, complex integration, vectors, matrices, functions of matrices, Cayley-Hamilton theorem, state-space modeling, optimization techniques, least squares technique, total least squares, and numerical techniques.

Grade Mode: Normal Grading Mode

EE 608 Research Methods**3 Credit hours**

Overview of research methods in engineering. Research theory, design, ethics, and practice. Research plan and proposal. Experimental, numerical, and analytical research. Reviewing literatures, collect and analyze data quantitatively and qualitatively.

Grade Mode: Normal Grading Mode

EE 611 Digital Design	3 Credit hours	EE 652 Special Topics	1-4 Credit hours
This course covers the CMOS circuits. Design approaches with emphasis placed on structured full custom design, MOS device, critical interconnect and gate characteristics. CMOS logic design from transistor to fabrication.		Subject matter to be selected from topics of current interest.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
EE 615 Real Time Systems	3 Credit hours	EE 653 Special Topics	1-4 Credit hours
This course covers the Designing real-time embedded systems from a hardware and software perspective. Communications and signal processing systems. Applications to seismic monitoring, process control, and biomedical systems.		Subject matter to be selected from topics of current interest.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
EE 618 Data & Comm Networks	3 Credit hours	EE 656 Semiconductr Switchng Circuits	3 Credit hours
This course introduces the underlying concepts behind networking using the internet and its protocols as examples.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		EE 658 Linear Syst-State Space Appro	3 Credit hours
EE 624 Wireless Communication	3 Credit hours	Grade Mode: Normal Grading Mode	
This course introduces fundamental technologies for wireless communication.		EE 661 Continuous & Digital Cntrl Sys	3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
EE 630 Robust Control	3 Credit hours	EE 681 Microprocessors-Prin & Appl 1	3 Credit hours
Linear systems, norms for signals and systems, stability and performance, uncertainty and robustness, parameterization of stabilizing controllers, algebraic Riccati equations, H2 control, and H infinity control.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		EE 682 Microprocessors-Prin & Appl 2	3 Credit hours
EE 631 Optimal Control	3 Credit hours	Grade Mode: Normal Grading Mode	
The course introduces the theory of Optimal Control. It covers evaluation methods for control signals that satisfy some physical constraints and minimize or maximize some performance measures.		EE 683 Microcomputer-Based Design	3 Credit hours
Grade Mode: Normal Grading Mode		Surface and subsurface geology, geotechnical properties of soil and rock. Geotechnical engineering design aspects of landfills, groundwater barriers, tunneling. Mechanics of ground movements, sediment and erosion control. (PR: Engine- ering or Geology degree)	
EE 636 Power System Operation	3 Credit hours	Grade Mode: Normal Grading Mode	
This course covers modern power systems, operational, control problems, solution techniques. State estimation, contingency analysis, load-frequency control and automatic generation control, load flow analysis and external equivalents for steady-state operations.		EE 684 Unknown	3 Credit hours
Grade Mode: Normal Grading Mode		EE 685 Independent Study	1-4 Credit hours
EE 638 Nonlinear Sys & Control	3 Credit hours	Independent study in which a student meets regularly with a faculty member to discuss assignments.	
The course provides a rigorous introduction to the analysis and control of nonlinear dynamical systems in time domain.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		EE 686 Independent Study	1-4 Credit hours
EE 639 Renew Energy & Dist Generation	3 Credit hours	Independent study in which a student meets regularly with a faculty member to discuss assignments.	
This course covers the fundamentals of energy and sustainability; power efficiency; hydro, wind, solar, fuel systems; Converters and controllers for integration of renewable energy sources; Smart grid, hybrid generation systems.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		EE 687 Independent Study	1-4 Credit hours
EE 642 Pattern Recognition 1	3 Credit hours	Independent study in which a student meets regularly with a faculty member to discuss assignments.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
EE 643 Pattern Recognition 2	3 Credit hours	EE 688 Independent Study	1-4 Credit hours
Grade Mode: Normal Grading Mode		Independent study in which a student meets regularly with a faculty member to discuss assignments.	
EE 650 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Subject matter to be selected from topics of current interest.		EE 690 Special Topics	1-6 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
EE 651 Special Topics	1-4 Credit hours	EE 698 Design Project	3 Credit hours
Subject matter to be selected from topics of current interest.		The course introduces the principles of product design: specifications, evaluation of design alternatives, technical reports and oral presentations. Intellectual property, industry standards and conventions, engineering economics, reliability, safety, engineering ethics.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
EE 652 Special Topics	1-4 Credit hours	EE 699 Thesis	1-6 Credit hours
Subject matter to be selected from topics of current interest.		This represents the course designation for a Master's Degree Research Thesis. Successful completion of a thesis fulfills the research requirement for the M.S. degree in Electrical Engineering.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
EE 653 Special Topics	1-4 Credit hours	EE 790 Advanced Independent Study	3 Credit hours
Subject matter to be selected from topics of current interest.			
Grade Mode: Normal Grading Mode			

Engineering Management

EM 601 The Management Process 3 Credit hours

This course covers the management process and the structural, organizational and behavioral principles needed by managers to function effectively in organizational environments.

Grade Mode: Normal Grading Mode

EM 620 Mgt Tech HR & Orgs 3 Credit hours

Principles leading to better management and development of technical human resources and organizations. Included are concepts technical managers need to positively change themselves and to lead others toward desired behavior.

Grade Mode: Normal Grading Mode

EM 640 Personnel Administration 3 Credit hours

Grade Mode: Normal Grading Mode

EM 642 Industrial Psychology 3 Credit hours

Grade Mode: Normal Grading Mode

EM 644 Organizational Behavior 3 Credit hours

Grade Mode: Normal Grading Mode

EM 650 Special Topics 1-4 Credit hours

Study of special topics of an advanced nature. (PR: Consent)

Grade Mode: Normal Grading Mode

EM 651 Special Topics 1-4 Credit hours

Study of special topics of an advanced nature. (PR: Consent)

Grade Mode: Normal Grading Mode

EM 652 Special Topics 1-4 Credit hours

Study of special topics of an advanced nature. (PR: Consent)

Grade Mode: Normal Grading Mode

EM 653 Special Topics 1-4 Credit hours

Study of special topics of an advanced nature. (PR: Consent)

Grade Mode: Normal Grading Mode

EM 660 Project Management 3 Credit hours

Provides the student with a practical knowledge of how to integrate effectively the functional efforts of many in the execution of programs and projects.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

EM 661 Advanced Project Management 3 Credit hours

Course is designed to increase proficiency in the advanced aspects of project management. Participants will become aware of the project management processes in PMI's Project Management Body of Knowledge.

Grade Mode: Normal Grading Mode

EM 662 Organization Theory 3 Credit hours

Grade Mode: Normal Grading Mode

EM 664 Mgt Res & Devel Organizations 3 Credit hours

Techniques and methods for effective management of research and development organizations, projects, and personnel. (PR: EM 601)

Grade Mode: Normal Grading Mode

EM 665 Mgt Engineering Organizations 3 Credit hours

Techniques and methods for effective management of engineering firms, departments, and personnel. (PR: EM 601)

Grade Mode: Normal Grading Mode

EM 668 Operations Management 3 Credit hours

Examination of the quantitative and conceptual tools for generating goods and services in manufacturing and non-manufacturing organizations.

Grade Mode: Normal Grading Mode

EM 670 Seminar in Engineering Mgt 3 Credit hours

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)

Grade Mode: Normal Grading Mode

EM 675 Engineering Economics 3 Credit hours

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)

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

EM 682 Management Information Systems 3 Credit hours

Grade Mode: Normal Grading Mode

EM 683 Systems Analysis Technique 3 Credit hours

Grade Mode: Normal Grading Mode

EM 684 Systems Design for Tech Info 3 Credit hours

Grade Mode: Normal Grading Mode

EM 694 Engineering Law 3 Credit hours

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.

Grade Mode: Normal Grading Mode

EM 699 Comprehensive Project in EM 3 Credit hours

Grade Mode: Satisfactory/Unsatisfactory

EM 770 Sem in Engineering Management 3 Credit hours

Grade Mode: Normal Grading Mode

EM 780 Special Topics 3-6 Credit hours

Grade Mode: Normal Grading Mode

EM 790 Final Project/Engr Management 3 Credit hours

Grade Mode: Normal Grading Mode

EM 799 RESEARCH 1-6 Credit hours

Grade Mode: Normal Grading Mode

Engineering & Science

ENGR 502 Microcomputer Wordprocessing 1 Credit hour

ENGR 503 Microcomputer Telecommunicati 1 Credit hour

ENGR 504 Microcomputer Database Appl 1 Credit hour

ENGR 509 Microcomputer Applications 3 Credit hours

ENGR 511 Technical Seminars 3 Credit hours

ENGR 570 Finite Elements 3 Credit hours

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.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

ENGR 610 Applied Statistics**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ENGR 620 Computer Applications****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ENGR 650 Special Topics****1-4 Credit hours**

Formal study of engineering topics of current interest. (PR: Consent)

Grade Mode: Normal Grading Mode**ENGR 651 Special Topics****1-4 Credit hours**

Formal study of engineering topics of current interest. (PR: Consent)

Grade Mode: Normal Grading Mode**ENGR 652 Special Topics****1-4 Credit hours**

Formal study of engineering topics of current interest. (PR: Consent)

Grade Mode: Normal Grading Mode**ENGR 653 Special Topics****1-4 Credit hours**

Formal study of engineering topics of current interest. (PR: Consent)

Grade Mode: Normal Grading Mode**ENGR 670 Advanced Stress Analysis****3 Credit hours**

Three-dimensional stress and strain, failure criteria, advanced topics in structural mechanics, energy methods, introduction to the theory of elasticity, fundamentals of fracture mechanics.

Grade Mode: Normal Grading Mode**ENGR 682 Research****1-6 Credit hours**

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 MS degrees.

Grade Mode: Credit/No Credit Grade Only**ENGR 685 Independent Study****1-4 Credit hours**

An approved study of special interest concerning engineering under the supervision of a faculty member. (PR: Consent)

Grade Mode: Normal Grading Mode**ENGR 686 Independent Study****1-4 Credit hours**

An approved study of special interest concerning engineering under the supervision of a faculty member. (PR: Consent)

Grade Mode: Normal Grading Mode**ENGR 687 Independent Study****1-4 Credit hours**

An approved study of special interest concerning engineering under the supervision of a faculty member. (PR: Consent)

Grade Mode: Satisfactory/Unsatisfactory**ENGR 688 Independent Study****1-4 Credit hours**

An approved study of special interest concerning engineering under the supervision of a faculty members. (PR: Consent)

Grade Mode: Normal Grading Mode**ENGR 695 Internship in Engineering****3 Credit hours**

Supervised on-the-job experience. The student will work in a technology or engineering company or department with an organization. (PR: Permission)

Grade Mode: Credit/No Credit Grade Only**ENGR 699 Comprehensive Project****3 Credit hours**

Completion of comprehensive project under the supervision of a faculty member. Includes final written submittal and public oral presentation. Fulfills engineering MS requirement for Project Option.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**Environmental Engineering****ENVE 600 Special Topics in Envr Engr****1-3 Credit hours****Grade Mode:** Normal Grading Mode**ENVE 611 Air Pollution Design I****3 Credit hours**

An introduction to absorption, condensation, incineration, absorption, and process modification relevant to the design of abatement systems for gaseous air pollutant emissions. (PR: unit operations, thermodynamics and calculus)

Grade Mode: Normal Grading Mode**ENVE 612 Air Pollution Design II****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ENVE 615 Environmental Chemistry****3 Credit hours**

Fundamental principles governing the various aspects of chemistry relevant to the environment will be addressed. The chemistry of waste treatment, cycle processes and other applications will be evaluated. (PR: Consent)

Grade Mode: Normal Grading Mode**ENVE 616 Wastewater Treatment Fac Dsgn****3 Credit hours**

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)

Pre-req: ENVE 615.**Grade Mode:** Normal Grading Mode**ENVE 617 Water Treatment Fac Design****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ENVE 618 Pollution Prevention****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ENVE 620 Solid Waste Management****3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ENVE 625 Hazardous Waste Management 3 Credit hours

Options and methods of managing hazardous waste. Landfill design, testing, operation, monitoring, and closure. Incinerator design, testing, operation, and monitoring. Design and operation of treatment facilities. Waste reduction practices.

Grade Mode: Normal Grading Mode

ENVE 650 Special Topics 1-4 Credit hours

Occasional special offerings in Environmental Engineering. (PR: Consent)

Grade Mode: Normal Grading Mode

ENVE 651 Special Topics 1-4 Credit hours

Occasional special offerings in Environmental Engineering. (PR: Consent)

Grade Mode: Normal Grading Mode

ENVE 652 Special Topics 1-4 Credit hours

Occasional special offerings in Environmental Engineering. (PR: Consent)

Grade Mode: Normal Grading Mode

ENVE 653 Special Topics 1-4 Credit hours

Occasional special offerings in Environmental Engineering. (PR: Consent)

Grade Mode: Normal Grading Mode

ENVE 663 Environmental Permitting 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ENVE 670 Hydrology and Drainage Control 1-6 Credit hours

The goal of this course is to develop an understanding of watershed processes, including precipitation, generation of runoff, infiltration, stream flow, soil erosion, sediment transport and deposition, and fluvial geomorphology. The course provides students with an overview of hydrologic concepts, such as precipitation and runoff flow, with an emphasis on practical applications such as modeling and control of runoff and sedimentation. Additional practical applications covered in the course are highway drainage concepts, including calculation of runoff and design of channels, culverts and other control structures.

Grade Mode: Normal Grading Mode

ENVE 671 Hydraulic Structures 3 Credit hours

Analysis and design of water conveyance channels and hydraulic structures, such as siphons, chutes, weirs, flumes, dams, spillways, gates, locks, storm surge barriers, and outlet works.

Grade Mode: Normal Grading Mode

ENVE 672 Watershed Modeling 3 Credit hours

Setup, execution, and calibration of numerical watershed models. Includes the rational method, TR-55, HEC-1, and HEC-HMS. Emphasis on watershed analysis for decision making and drainage design.

Grade Mode: Normal Grading Mode

ENVE 673 Industrial Ventilation 3 Credit hours

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)

Grade Mode: Normal Grading Mode

ENVE 675 Industrial Noise Control 3 Credit hours

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)

Grade Mode: Normal Grading Mode

ENVE 680 Air Poll Disper Meteoro Model 3 Credit hours

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)

Grade Mode: Normal Grading Mode

ENVE 681 Environmental Engr Design 3 Credit hours

Principles of engineering design of water and waste- water treatment systems and processes, including physical, chemical and biological treatment and handling of treatment residuals. Includes coverage of relevant water quality concepts.

Grade Mode: Normal Grading Mode

ENVE 682 Environmental Remediation Tech 3 Credit hours

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)

Grade Mode: Normal Grading Mode

ENVE 683 Environmental Geotechnology 3 Credit hours

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)

Grade Mode: Normal Grading Mode

Environmental Science**ES 514 Environmental Risk Assessment 3 Credit hours**

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

ES 550 Environmental Law & Policy 3 Credit hours

Introduction to major federal environmental legislation and related state programs, judicial review, and practical effects, and to processes for formulation and development of environmental policy.

Grade Mode: Normal Grading Mode

ES 554 Watershed Protection 3 Credit hours

This course reviews key components of watershed structure and functions before investigating and applying concepts for managing and restoring aquatic ecosystems.

Grade Mode: Normal Grading Mode

ES 575 Intro to Environmental Science 3 Credit hours

The principles of chemistry, geology and mathematics used in pollution control. Topographic maps, environmental regulations, field testing and compliance. Economics of use of pollution control devices.

Grade Mode: Normal Grading Mode

ES 582 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

ES 583 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

ES 585 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

ES 586 Independent Study	1-4 Credit hours	ES 630 Environmental Site Assessment	3 Credit hours
Grade Mode: Normal Grading Mode		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.	
ES 587 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ES 640 Groundwater Princ & Monitoring	3 Credit hours
ES 588 Independent Study	1-4 Credit hours	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)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ES 602 Study of WV Environment	3 Credit hours	ES 645 Applied Hydrogeology	3 Credit hours
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.		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)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ES 603 Seminar In Current Envr Issues	3 Credit hours	ES 646 Dynamics of Ecosystems	3 Credit hours
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)		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)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ES 604 Air Pollution	3 Credit hours	ES 648 Vegetation of West Virginia	3 Credit hours
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)		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ES 651 Environmental Microbiology	3 Credit hours
ES 605 Analy Prin Environ Sampling	3 Credit hours	Grade Mode: Normal Grading Mode	
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 spectroscopy. (PR: Chemistry and ES 600, or equivalent experience)		ES 652 Special Topics	1-4 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ES 609 Topics in Bioscience Education	1-6 Credit hours	ES 655 Environmental Ethics	3 Credit hours
Selected topics of interest to teachers of biology. (PR: Consent)		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)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ES 610 Envr Sampling Practice	3 Credit hours	ES 656 Prep Eval Environ Impact State	3 Credit hours
Current practice in environmental testing and monitoring. Traditional wastewater 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)		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ES 620 Environmental Management Sys	3 Credit hours	ES 660 Environmental Law I	3 Credit hours
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.		Introduction to major federal environmental legislation and related state programs, including policy issues, judicial review, and practical effects. Includes CERCLA, RCRA, Clean Water Act, NEPA, ESA and SDWA.	
Attributes: No Textbook Required		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ES 661 Environmental Regulations	3 Credit hours
ES 626 Remote Sensing & Map Use	3 Credit hours	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.	
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.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode			

ES 663 Environmental Law II**3 Credit hours**

Course covers three general topic areas: environmental assessment and biodiversity assessment (NEPA and ESA), risk management and the regulation of toxic substances (TSCA, FIFRA, and SDWA), and international environmental law.

Pre-req: ES 660.**Grade Mode:** Normal Grading Mode**ES 665 Water Resources Management****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ES 670 Sustainable Energy****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ES 674 Epidemiological Hlth Res Tech****3 Credit hours**

An introduction to techniques of epidemiological health research. The primary focus will be health problems in the industrial setting.

Grade Mode: Normal Grading Mode**ES 675 Brownfields Management****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ES 680 Thesis****1-6 Credit hours**

Students completing ES 680 must defend their thesis in an oral examination.

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**Information Systems****IS 502 Advanced Programming****3 Credit hours****Grade Mode:** Normal Grading Mode**IS 510 Comptr Sys & Structured Prgm 2****3 Credit hours**

A continuation of IS 500. Topics include algorithm development, manipulation of arrays and an introduction to dynamic data structures. (PR: IS 500 or consent)

Pre-req: IS 500.**Grade Mode:** Normal Grading Mode**IS 535 Applied Healthcare DB****3 Credit hours**

To understand the logical and physical design of data stored and retrieved from relational databases, how it applies to healthcare, and how HIM professionals can effectively communicate business requirements.

Grade Mode: Normal Grading Mode**IS 545 Healthcare Data Analytics****3 Credit hours**

The course focuses on the systems, techniques, strategies and methods of big data analysis, data mining and machine learning algorithms and data visualization in healthcare settings.

Grade Mode: Normal Grading Mode**IS 580 Special Topics****1-4 Credit hours**

Occasional offerings of current topics in information systems, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode**IS 581 Special Topics****1-4 Credit hours**

Occasional offerings of current topics in information systems, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode**IS 582 Special Topics****1-4 Credit hours**

Occasional offerings of current topics in information systems, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode**IS 583 Special Topics****1-4 Credit hours**

Occasional offerings of current topics in information systems, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode**IS 585 Independent Study****1-4 Credit hours**

An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode**IS 586 Independent Study****1-4 Credit hours**

An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode**IS 587 Independent Study****1-4 Credit hours**

An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode**IS 588 Independent Study****1-4 Credit hours**

An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode**IS 600 Management Information Systems****3 Credit hours**

The course examines personal, work group, and enterprise information systems with respect to their value, their components, and the process of developing them.

Grade Mode: Normal Grading Mode**IS 603 Program for Artificial Intell****3 Credit hours**

An introduction to programming for artificial intelligence applications using Prolog.

Grade Mode: Normal Grading Mode**IS 605 Systems Analysis and Design****3 Credit hours**

This course focuses on analysis and design of information systems.

Topics include system development approaches, UML design, system integration, system-oriented architecture and foundation. 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)

Grade Mode: Normal Grading Mode

IS 610 Systems Quality Assurance**3 Credit hours**

This course will cover the steps in developing enterprise IT policies, standards, guidelines and procedures while ensuring quality and compliance responsible for the design, implementation, and evaluation, and monitoring of a comprehensive system. 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)

Pre-req: IS 605 or IS 605G.**Grade Mode:** Normal Grading Mode**IS 615 System Simulation****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**IS 618 Computer Appl in Engi & Sci I****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**IS 620 Intro to Operating Systems****3 Credit hours**

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)

Pre-req: IS 621 or IS 520G.**Grade Mode:** Normal Grading Mode**IS 621 Information Structures I****3 Credit hours**

Representation and manipulation of numeric and non-numeric information, linear lists, strings, multilinked structures; sorting and searching; storage management; data structures in programming language. Relevant aspects of discrete mathematics. (PR: IS 510 or equivalent)

Grade Mode: Normal Grading Mode**IS 622 Emerging Tech in Info Systems****3 Credit hours**

This course will explore the emerging technologies in information systems. These technologies are generally new but include older technologies that are still controversial and relatively undeveloped in potential (PR: IS 621) A continuation of IS 621. Tree, graph, and set structures; file structures for secondary storage; aspects of discrete mathematics. (PR: IS 621)

Pre-req: IS 621.**Grade Mode:** Normal Grading Mode**IS 623 Database Management****3 Credit hours**

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. (Prerequisite: IS 622 or consent)

Pre-req: IS 621 (may be taken concurrently).**Concurrent PR:** IS 621**Grade Mode:** Normal Grading Mode**IS 624 Data Warehousing****3 Credit hours**

A hand-on introduction to the concepts and techniques of data warehousing and data mining.

Pre-req: IS 623.**Grade Mode:** Normal Grading Mode**IS 625 Software Engineering****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**IS 630 Comp Arch & Assembly Lang****3 Credit hours**

An introduction to the composition and operation of electronic digital computers and to assembly language programming. (PR: IS 510 or equivalent)

Pre-req: IS 510.**Grade Mode:** Normal Grading Mode**IS 631 Information Security****3 Credit hours**

This course provides foundation knowledge in information security, including protecting information assets, risk mitigation strategies, response to security incidents, and designing secure systems.

Grade Mode: Normal Grading Mode**IS 635 Computer Graphics****3 Credit hours**

An introduction to the areas of computer graphics that are necessary to understand, evaluate, and develop graphics applications. (PR: Admission to program)

Pre-req: IS 500.**Grade Mode:** Normal Grading Mode**IS 640 Programming Languages****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**IS 645 Geographic Information Systems****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**IS 646 Computer Sys Security****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**IS 647 IT Disaster Plan and Recovery****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**IS 650 Special Topics****1-4 Credit hours**

Different transmission media, digital communications, telecommunications services, types of networks and topologies, network protocols, components, and applications. (PR IS 521 or TM 660 or Permission)

Grade Mode: Normal Grading Mode

IS 651 Special Topics**1-4 Credit hours**

Varies according to interests of students and instructor. (PR: Consent)

Grade Mode: Normal Grading Mode**IS 652 Special Topics****1-4 Credit hours**

Varies according to interests of students and instructor. (PR: Consent)

Grade Mode: Normal Grading Mode**IS 653 Special Topics****1-4 Credit hours**

Occasional offerings of current topics in information systems, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode**IS 655 Multimedia & Elec Dissem****3 Credit hours**

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. (TM 660 or permission)

Grade Mode: Normal Grading Mode**IS 656 Comm & Network Technologies****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**IS 660 Models of Computation****3 Credit hours**

Switching algebra and relationship to computers; finite automata; Turing machines; recursion; computability and unsolvability. (PR: IS 622, math maturity)

Grade Mode: Normal Grading Mode**IS 665 Health Care Enterpr Info Syst****3 Credit hours**

A hands-on introduction to using a health care enterprise information system providing students opportunity to work with elements of an EIS

Grade Mode: Normal Grading Mode**IS 670 Lang Translators & Concepts****3 Credit hours**

Formal language concepts, syntactic analysis; types of translators; detailed review of assemblers, interpreters, and compilers, and techniques of their construction. (PR: IS 622)

Grade Mode: Normal Grading Mode**IS 680 Social Issues in Info Systems****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**IS 681 Thesis****1-6 Credit hours**

Investigate a research problem of theoretical interest and practical value under mentorship of a information systems and computer science faculty.

Grade Mode: Credit/No Credit Grade Only**IS 685 Independent Study****1-4 Credit hours**

An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode**IS 686 Independent Study****1-4 Credit hours**

An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode**IS 687 Independent Study****1-4 Credit hours**

An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode**IS 688 Independent Study****1-4 Credit hours**

An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode**IS 690 Prin of Artificial Intelligence****3 Credit hours**

A survey of the field of artificial intelligence and expert systems. Students will work together designing and implementing a project. (PR: Permission)

Grade Mode: Normal Grading Mode**IS 691 Comprehensive Project****3 Credit hours**

Develop expertise in an emerging area of information systems through guided study under faculty mentorship.

Grade Mode: Credit/No Credit Grade Only**IS 692 Image Processing****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**IS 695 Expert Systems****3 Credit hours**

A review of expert systems techniques and applications. Participants will develop small expert systems using several different personal computer expert systems development programs (shells)

Grade Mode: Normal Grading Mode**IS 698 Internship****1-3 Credit hours**

Supervised work experience in information systems or related fields.

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**IS 699 Final Project****1-6 Credit hours****Grade Mode:** Normal Grading Mode

Mechanical Engineering

ME 502 Principles and Practices-ME**2 Credit hours****Grade Mode:** Normal Grading Mode**ME 515 Vehicle Dynamics****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ME 520 Intro Comp Fluid Dynamic****3 Credit hours**

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 modeling.

Grade Mode: Normal Grading Mode**ME 530 Renewable Energy****3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ME 545 Nano-Materials**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ME 560 Automation and Control****3 Credit hours**

This course provides an overview of the principles of automation and concept of system control, including instrumentation, control, human interface, and communication subsystems.

Grade Mode: Normal Grading Mode**ME 601 Advanced Engr Analysis I****3 Credit hours**

The core of this course is to learn advance analytical and computational methods to solve multi-dimensional conduction, convection-advection, mechanical vibration, and elasticity equations.

Grade Mode: Normal Grading Mode**ME 602 Advanced Engr Analysis II****3 Credit hours**

This is the second course in a two-course sequence to learn advanced analytical and computational methods to solve multi-dimensional diffusion, heat, biharmonic, and elasticity equations.

Pre-req: ME 601.**Grade Mode:** Normal Grading Mode**ME 604 Research Methods****3 Credit hours**

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.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**ME 617 Additive Manufacturing****3 Credit hours**

Additive manufacturing (AM), rapid prototyping, rapid tooling, joining processes, direct digital manufacturing to form 3D parts with applications ranging from prototyping to production in aerospace, defense, and biomedical industries.

Grade Mode: Normal Grading Mode**ME 621 Corrosion Engineering****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ME 625 Tribology****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ME 628 Applied Biomaterials****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ME 630 Manufacturing Systems****3 Credit hours**

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/tooling.

Grade Mode: Normal Grading Mode**ME 635 Advanced Vibrations****3 Credit hours**

Modeling of vibratory motion of advanced mechanical and structural systems, including continuous systems, nonlinear systems and systems with random excitations.

Grade Mode: Normal Grading Mode**ME 640 System Modeling****3 Credit hours**

Overview of system modeling and simulation of complex systems with mechanical, hydraulic, thermal and/or electrical elements. Frequency response analysis, stability, and numerical analysis of system modeling.

Grade Mode: Normal Grading Mode**ME 645 Nonlinear Dynamics****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ME 649 Sustainable Energy Management****3 Credit hours**

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.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**ME 650 Special Topics****1-4 Credit hours**

Subject matter to be selected from topics of current interest.

Grade Mode: Normal Grading Mode**ME 651 Special Topics****1-4 Credit hours**

Subject matter to be selected from topics of current interest.

Grade Mode: Normal Grading Mode**ME 652 Special Topics****1-4 Credit hours**

Subject matter to be selected from topics of current interest.

Grade Mode: Normal Grading Mode**ME 653 Special Topics****1-4 Credit hours**

Subject matter to be selected from topics of current interest.

Grade Mode: Normal Grading Mode**ME 699 Thesis****1-6 Credit hours**

This course covers the communication problems encountered in researching and writing a thesis: the scientific writing of a research paper, the speaking and presenting skills, and the organization skills.

Grade Mode: Normal Grading Mode**Safety Technology****SFT 536 Safety Ed for Elem Teachers****1 Credit hour****Grade Mode:** Normal Grading Mode**SFT 540 Indust Fire Protection****3 Credit hours**

An introductory course that explores the relationship between engineering and fire prevention. Topics include: water supplies, sprinkler systems, behavior of fire and materials, fire protection, fire extinguishers, and other systems.

Grade Mode: Normal Grading Mode

SFT 553 International Safety & Health	3 Credit hours	SFT 597 Occup Sft & Health Prog Dev	3 Credit hours
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.		Safety functions in industry. Principles of organization and application of safety programs. Prevention, correction, and control methods are outlined and evaluated.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
SFT 554 Indust Hygiene I	3 Credit hours	SFT 599 Dev & Mgt of Occup Safety Prog	3 Credit hours
Environmental protection as related to industrial settings. Air/water quality, noise and chemical pollution and hazardous material control.		A study of safety programs at the state and local levels including the administrative, instructional, and protective aspects of a comprehensive safety program in schools, occupations, home and public.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
SFT 555 Environmental Prog/Sampling	3 Credit hours	SFT 601 Safety in Transportation	3 Credit hours
Grade Mode: Normal Grading Mode		Concerned with safe, efficient movement of people and goods. Involves highway, air, water, pipeline, and rails.	
SFT 558 Hospital Safety	3 Credit hours	Grade Mode: Normal Grading Mode	
The course covers the various aspects of safety and health in professional health care services.		SFT 606 Field Esp Safety Specialist	3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
SFT 561 Workers Comp	3 Credit hours	SFT 610 Intro to Prof Safety & Health	3 Credit hours
Introductory principles of workers' compensation and how it relates to the safety professional.		An analysis of the educational philosophies and the application of these philosophies to occupational safety. A study of the effect of occupational safety on modern living.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
SFT 565 Incident Investigation Tech	3 Credit hours	SFT 630 Current Lit & Res in Safety	3 Credit hours
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.		An analysis and study of selected works of national and international authors concerning significant works in Occupational Safety.	
Grade Mode: Normal Grading Mode		Attributes: No Textbook Required	
SFT 575 System Safety Engineering	3 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		SFT 645 Saf Engineering Equip Design	3 Credit hours
SFT 580 Special Topics	1-4 Credit hours	The design and engineering of facilities and equipment to meet the physical needs of the human as well as enhancing production.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
SFT 581 Special Topics	1-4 Credit hours	SFT 647 Industrial Hygiene II	3 Credit hours
Grade Mode: Normal Grading Mode		Concerned with environmental health and safety hazards that arise out of or occur during work of employees.	
SFT 582 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		SFT 647L Quan Indus Hygiene Lab	3 Credit hours
SFT 583 Special Topics	1-4 Credit hours	A laboratory course designed to complement Industrial Hygiene.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
SFT 585 Independent Study	1-4 Credit hours	SFT 648 Industrial Ventilation	3 Credit hours
Grade Mode: Normal Grading Mode		This course will cover the techniques of development, design maintenance, and troubleshooting of industrial ventilation systems. Also the types of ventilation systems used for different types of toxic materials.	
SFT 586 Independent Study	1-4 Credit hours	Pre-req: SFT 647 or SED 647.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
SFT 587 Independent Study	1-4 Credit hours	SFT 649 Biophysical Hazards & Monitor	3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
SFT 589 Process Safety Mgmt	3 Credit hours	SFT 650 Internship Safety Specialist	3-12 Credit hours
A study of the latest industrial safety information which will assist the student in designing a program to reduce or eliminate all incidents which downgrade the system.		Attributes: No Textbook Required	
Grade Mode: Normal Grading Mode		Grade Mode: Credit/No Credit Grade Only	
SFT 591 Workshop	1-4 Credit hours	SFT 651 Toxicology & Epidemiology	3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
SFT 592 Workshop	1-4 Credit hours	SFT 652 Industrial Noise & Vibration	3 Credit hours
Grade Mode: Normal Grading Mode		Pre-req: (SFT 554 or SED 554) or (SFT 647 or SED 647).	
SFT 593 Workshop	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode			
SFT 594 Workshop	1-4 Credit hours		
Grade Mode: Normal Grading Mode			

SFT 660 Appl Ergon and Hum Factors Eng 3 Credit hours

A study of how humans interact with the work environment, focusing on human capabilities and limitations, repetitive motion disorders, the human/machine interface and workspace design.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

SFT 661 Adv Occup Ergonomics 3 Credit hours

Pre-req: SFT 660 or SED 660.

Grade Mode: Normal Grading Mode

SFT 662 Methods in Work Analysis 3 Credit hours

Grade Mode: Normal Grading Mode

SFT 663 Work Environment Issues 3 Credit hours

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.

Grade Mode: Normal Grading Mode

SFT 669 Traffic Safety Management 3 Credit hours

Grade Mode: Normal Grading Mode

SFT 679 Problem Report 1-3 Credit hours

Grade Mode: Normal Grading Mode

SFT 681 Thesis 1-6 Credit hours

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

SFT 690 Seminar 1-4 Credit hours

Grade Mode: Normal Grading Mode

SFT 691 Seminar 1-4 Credit hours

Grade Mode: Normal Grading Mode

SFT 692 Seminar 1-4 Credit hours

Grade Mode: Normal Grading Mode

Technology and Engineering

TE 600 Orientation CITE Grad Studies 0 Credit hours

Orientation course covering skills such as technical communication, quantitative reasoning, research methods, ethics and professionalism, team work, and discipline-specific information.

Grade Mode: Credit/No Credit Grade Only

TE 650 Special Topics 4 Credit hours

Occasional offerings of current topics in technology and engineering, providing important supplementary material for participating students.

Grade Mode: Credit/No Credit Grade Only

TE 651 Special Topics 1-4 Credit hours

Occasional offerings of current topics in technology and engineering, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode

TE 652 Special Topics 1-4 Credit hours

Occasional offerings of current topics in technology and engineering, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode

TE 653 Special Topics 1-4 Credit hours

Occasional offerings of current topics in technology and engineering, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode

TE 685 Independent Study 1-4 Credit hours

An approved study of special interest, that is appropriate for the student's program of study, concerning technology and engineering. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode

TE 686 Independent Study 1-4 Credit hours

An approved study of special interest, that is appropriate for the student's program of study, concerning technology and engineering. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode

TE 687 Independent Study 1-4 Credit hours

An approved study of special interest, that is appropriate for the student's program of study, concerning technology and engineering. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode

TE 688 Independent Study 1-4 Credit hours

An approved study of special interest, that is appropriate for the student's program of study, concerning technology and engineering. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode

TE 698 Comp Project Formulation 3 Credit hours

Comprehensive project proposal is developed, approved, and work begun, under supervision. Technical report writing, oral presentations, and communication skills. (PR: EM 660) S/U Grading.

Pre-req: EM 660.

Grade Mode: Credit/No Credit Grade Only

TE 699 Comprehensive Project 3 Credit hours

Completion of comprehensive project under the supervision of a faculty member. Includes final written submittal and public oral presentation. (PR: TE 698) S/U Grading.

Attributes: No Textbook Required

Grade Mode: Credit/No Credit Grade Only

Technology Management

TM 600 Program Introduction Seminar 1 Credit hour

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.

Pre-req: TM 610 (may be taken concurrently).

Concurrent PR: TM 610

Grade Mode: Normal Grading Mode

TM 610 Mgmt of Innovation & Tech 3 Credit hours

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 approaches to technology.

Grade Mode: Normal Grading Mode

TM 612 Econ & Financial Analysis 3 Credit hours

Tools and techniques for analyzing companies and their financial statements and for evaluating financial alternatives, including discounted cash flow, net present value and return on investment. (PR: TM 610)

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

TM 615 Info Tech Strategies**3 Credit hours**

This course provides sound principles for managing information technology computers and telecommunications systems as well as the processes and procedures for applying the principles. (PR: TM 610)

Grade Mode: Normal Grading Mode**TM 620 Technology Planning****3 Credit hours**

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. (PR: Full Admission to TM program, or permission of TM Program Director)

Grade Mode: Normal Grading Mode**TM 630 Qual & Prod Methods****3 Credit hours**

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: TM 610)

Grade Mode: Normal Grading Mode**TM 640 Intelligent Transpor Systems****3 Credit hours**

Overview of transportation telemetrics and introduction to intelligent transportation systems. Communications and computing technologies in transportation. Overview of issues: traffic safety, public transportation.

Grade Mode: Normal Grading Mode**TM 650 Special Topics****1-4 Credit hours**

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).

Grade Mode: Normal Grading Mode**TM 651 Special Topics****1-4 Credit hours**

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).

Grade Mode: Normal Grading Mode**TM 652 Special Topics****1-4 Credit hours**

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).

Grade Mode: Normal Grading Mode**TM 653 Special Topics****1-4 Credit hours**

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).

Grade Mode: Normal Grading Mode**TM 659 Digital Access Pol & Strats****3 Credit hours**

An introductory course for creating digital accessibility policies and plans for the workplace. Includes strategies to create accessible documents, evaluate web site accessibility, and investigate assistive technologies.

Grade Mode: Normal Grading Mode**TM 660 Computing & Info Sys Tech****3 Credit hours**

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)

Pre-req: TM 615 (may be taken concurrently).**Concurrent PR:** TM 615**Grade Mode:** Normal Grading Mode**TM 664 Health Informatics****3 Credit hours**

Introduction of various aspects of medical informatics, including medical literature search and retrieval, management and analysis of data, modeling and simulation, data communications, on-line databases, and clinical decision analysis.

Grade Mode: Normal Grading Mode**TM 667 Mod Mfg Concepts****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**TM 668 Computer Integrated Mfg****3 Credit hours****Grade Mode:** Normal Grading Mode**TM 685 Independent Study****1-4 Credit hours**

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).

Grade Mode: Normal Grading Mode**TM 686 Independent Study****1-4 Credit hours**

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).

Grade Mode: Normal Grading Mode**TM 687 Independent Study****1-4 Credit hours**

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).

Grade Mode: Normal Grading Mode**TM 688 Independent Study****1-4 Credit hours**

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).

Grade Mode: Normal Grading Mode**TM 698 TM Internship****3 Credit hours**

Supervised on-the-job experience. The student will work in a technology company or technical department within an organization. (PR: Permission)

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**TM 699 TM Capstone Project****3 Credit hours**

An individualized technology management capstone project, which will be planned and carried out under the supervision of a faculty member and a work-site supervisor. (PR: Full Admission to TM program, and completion of 28 hrs. min. toward TM degree).

Grade Mode: Credit/No Credit Grade Only

Accessibility Awareness, Graduate Certificate

Industry leaders like Adobe, Amazon, Facebook, IBM, Google, Microsoft, Netflix and Verizon Media are actively recruiting people who can create products everyone can use, but they cannot find appropriately trained talent due to a significant skills gap (Teach Access, 2019). The Partnership on Employment and Accessible Technology (PEAT, 2018) found that 63% of companies surveyed said they do not have sufficient accessibility technology skills in their organization or candidates interviewed. Ninety-three percent said demand for accessibility skills will increase in the future. The interdisciplinary Accessibility Awareness Certificate will help students obtain knowledge and skills related to providing technology accessibility for all people, including those with disabilities, to become more employable. Coursework will increase student knowledge and provide learning experiences designed to foster innovation and creative problem-solving with disability perspectives in curriculum and instruction.

The 12-hour interdisciplinary Accessibility Awareness Certificate provides knowledge and skills related to providing technology accessibility for all people, including those with disabilities, to become more employable. Coursework fosters innovation and creative problem-solving with disability perspectives in curriculum and instruction.

Code	Title	Credit Hours
Course Requirements		
HRM 632	HR for Special Population	3
TM 610	Mgmt of Innovation & Tech	3
TM 659	Digital Access Pol & Strats	3
Choose one of the following:		3
TM 698 or TM 688	TM Internship Independent Study	
MGT 660 or MGT 671	Independent Study Business Admin Internship	
Total Credit Hours		12

Bioinformatics, Graduate Certificate

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.

Admission 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:

Code	Title	Credit Hours
MTH 140 	Applied Calculus	3
or MTH 229 	Calculus/Analytic Geom I (CT)	
Select one of the following:		3
STA 225 	Introductory Statistics (CT)	3
STA 326	Applied Statistical Methods	3
STA 345	Applied Prob and Stat	3

Program Requirements

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.

Plan of Study

Code	Title	Credit Hours
Required Courses		
CS 505	Computing for Bioinformatics	3
BSC 550	Molecular Biology	3
CS 645	Advanced Topics Bioinformatics	3
Elective I		
BSC 543 or CS 510	Microbial Genetics Advanced Database Systems	3
Elective II		
Select one of the following:		3
STA 518	Biostatistics	3
CS 540	Digital Image Processing	
CS 630	Machine Learning	
Total Credit Hours		18

Civil and Environmental Engineering, M.S.E.

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, Civil and 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: <https://www.marshall.edu/graduate/admissions/>. Each applicant must have an undergraduate engineering degree from either an accredited ABET curriculum or an internationally recognized program.

1. If applicants have an undergraduate 2.5 or higher GPA on a 4.0 scale and have already passed the PE exam in the major for which they are applying (official copy of certificate to be sent to the Marshall University Graduate Admissions Office), their applications will be accepted.
2. If applicants have an undergraduate GPA of 3.0 or higher on a 4.0 scale in an engineering major closely related to that for which they are applying, their applications will be evaluated on a case-by-case basis.
3. If applicants have an undergraduate GPA between a 2.5 and 3.0 on a 4.0 scale in an engineering major closely related to that for which they are applying, applicants must take the GRE exam or pass the FE exam, and have their official GRE scores or official FE certificate sent to the Marshall University Graduate Admissions office. The applications will be evaluated on a case-by-case basis.

At least one letter of recommendation is required for all applicants.

International applicants must provide proof of English proficiency with a minimum score of 6.5 on IELTS, a score of 80 on the TOEFL IBT (or 550 paper-based), or by holding an approved degree from an accepted, regionally accredited university within the United States. International applicants must meet all other admission criteria prior to being admitted to the program and registering for the first semester of courses.

A current non-degree or degree-seeking Marshall University student who holds an undergraduate engineering degree, may apply to be considered for admission to the M.S.E. degree program if s/he has at least a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of M.S.E. courses. For international students, the English requirements stated above must still be satisfied.

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.

Civil and Environmental Engineering

Each Civil and 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

Code	Title	Credit Hours
ENGR 318	Fluid Mechanics	3
CE 312	Structural Analysis	3
CE 342	Transportation Engineering	3
CE 413 or CE 414	Reinforced Concrete Structural Steel Design	3
CE 331	Hydraulic Engineering	3
CE 351	Environmental Engineering	3

Program Requirements

Each degree candidate is required to complete at least 30 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 a 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 Research) 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 complete 30 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 no more than once per semester for any student. If the student does not pass the exam within three attempts, the student will be dismissed from the program.

Plan of Study

Coursework-Only Option

Code	Title	Credit Hours
Required Courses		
Select one of the following:		3
ENGR 610	Applied Statistics	
ENGR 620	Computer Applications	
ME 601	Advanced Engr Analysis I	
EM 660	Project Management	3
Elective Courses (see below)		24
Total Credit Hours		30

Project Option

Code	Title	Credit Hours
Required Courses		
Select one of the following:		3
ENGR 610	Applied Statistics	
ENGR 620	Computer Applications	
ME 601	Advanced Engr Analysis I	
EM 660	Project Management	3
TE 699	Comprehensive Project	3
Elective Courses (see below)		21
Total Credit Hours		30

Thesis Option

Code	Title	Credit Hours
Required Courses		
Select one of the following:		3
ENGR 610	Applied Statistics	
ENGR 620	Computer Applications	
ME 601	Advanced Engr Analysis I	
EM 660	Project Management	3
ENGR 682	Research	6
Elective Courses (see below)		18
Total Credit Hours		30

Elective Courses for the Civil Environmental Engineering Major

- Any CE (Civil Engineering) graduate course approved in advance by the student's advisor
- Any ENVE (Environmental Engineering) graduate course approved in advance by the student's advisor.
- Any EM (Engineering Management) graduate course approved in advance by the student's advisor.
- Any ES (Environmental Science) graduate course approved in advance by the student's advisor.
- Any ENGR (Engineering) graduate course approved in advance by the student's advisor.
- Other graduate courses approved in advance by the student's advisor, up to 6 credit hours.

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. For full admission, a four-year Bachelor's degree with GPA of 2.75 or higher out of 4.0 in Computer Science, or related areas listed below is required.

- Computer Science
- Computer Engineering
- Information Technology
- Electrical Engineering
- Software Engineering

Applicants with a four-year bachelor's degree in a major not listed above may be admitted to the program with a condition of successful completion of the following three bridge courses with a grade of *B* or above in the first two semesters of the program:

- Data Structure and Algorithms (CS 210 Data Structures and Algorithms)
- Data Engineering (CS 410 Database Engineering)
- Applied Probability and Statistics (STA 345 Applied Prob and Stat)

Whether a student meets the above requirements will be determined by the division chair or designee based on the information provided in the admission application and transcripts. Foreign nationals must provide proof of English proficiency with a minimum score of 6.5 in IELTS or 80 on TOEFL IBT (or 550 paper based) and must have met all other admission criteria prior to registering for the first semester of courses.

Program Requirements

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 composed of the following components:

Thesis Option

As an elective course, the thesis option offers a student an opportunity for serious investigation into an area of interest. 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 (6 CR). Thesis can be taken only after the completion of 18 credits at the minimum. Please refer to Thesis Guideline in CS provided by your advisor for details.

Plan of Study

Code	Title	Credit Hours
Required CS Courses		
CS 510	Advanced Database Systems	3
CS 511	Advanced Programming	3
CS 515	Data Mining	3
CS 600	Advanced Web Technology	3
CS 620	Applied Algorithms	3
Elective Courses		
Select any 600-level courses in master's programs in the Division of Computer Science or 500-level course with special permission by chair of the program.		15
Total Credit Hours		30

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.

Course	Title	Credit Hours
First Year		
First Semester		
CS 510	Advanced Database Systems	3
CS 511	Advanced Programming	3
CS Elective 1		3
Credit Hours		9
Second Semester		
CS 515	Data Mining	3
CS 600	Advanced Web Technology	3
CS Elective 2		3
Credit Hours		9
Third Semester		
CS 620	Applied Algorithms	3
Select one of the following:		3
CS Elective 3		
CS 681	Thesis	
CS Elective 4		3
Credit Hours		9
Fourth Semester		
Select one of the following:		3
CS Elective 5		
Credit Hours		3
Total Credit Hours		30

Cybersecurity, M.S.

The Master of Science in Cybersecurity program provides students with the knowledge, skills, and professional practices needed for careers in the cybersecurity fields. The program also prepares students who desire to pursue further graduate work that leads to a Ph.D. degree. The curriculum covers several advanced topics in cybersecurity, such as; advanced cryptography, cybersecurity policy, cyber risk and vulnerability, cyber operation, wireless network security, web/mobile

security, software security, security in Internet of Things (IoT), etc. These courses will be taught using the very latest, state-of-the-art security tools and technologies.

Admission Requirements and Transfer Criteria

Applicants should follow the admissions process stated in the graduate catalog or the graduate admissions web site. Minimum requirements for admission is a four-year bachelor's degree with a GPA of 2.75 or higher out of 4.0 in Cybersecurity or computer science related programs.

Whether a student meets the above requirements will be determined by the chair or designee of the Weisberg Division of Computer Science, based on the information provided in the admission application and transcripts. Applicants with a four-year bachelor's degree in a major other than a cybersecurity or computer science related program may be admitted to the program with a condition of successful completion of the following three bridge courses with a grade of *B* or above in the first two semesters of the program:

- Data Structure and Algorithms (CS 210 Data Structures and Algorithms)
- Internetworking (CS 320 Internetworking)
- Statistics (STA 225 Introductory Statistics (CT) or STA 345 Applied Prob and Stat)

Foreign nationals must provide proof of English proficiency with a minimum score of 6.5 in IELTS or 80 on the TOEFL IBT (or 550 paper-based) and must have met all other admission criteria prior to registering for the first semester of courses.

Program Requirements

The M.S. degree requires 30 credit hours (CR) of graduate work. At least 15 credit hours should be taken from 600 level courses.

Plan of Study

Code	Title	Credit Hours
Core Required		
CYBR 510	Intro to Cybersecurity	3
CYBR 530	Cybersec Policies & Mgmt	3
CYBR 615	Cyber Vulnerability Assess	3
CYBR 620	Cyberwarfare	3
Concentration		
Select two courses from one concentration area:		6
Network Security (p. 164)		
Application Security (p. 164)		
Security Management (p. 164)		
Thesis Option or Core Electives Option ¹		
Select one of the following Options:		6
Thesis Option		
CYBR 680	Research in Cybersecurity	
CYBR 681	Thesis	
Core Electives Option		
Select any two 600 level CYBR courses		
Free Electives		

Select two of the following:		6
CYBR 500/400	Computer Security Design	
CYBR 535/435	Cyber Risk	
CYBR 542/442	Cyber Operations	
CYBR 625	Applied Cryptography (Independent Study also listed in the Network Security Concentration)	
CYBR 698	Internship	
CS 504	High Performance Computing	
CS 620	Applied Algorithms	
CS 625	AI Principles and Methods	
CS 630	Machine Learning	
CS 660	Big Data Systems	
IS 624	Data Warehousing	
IS 625	Software Engineering	
IS 692	Image Processing	
IS 631	Information Security	
IS 646	Computer Sys Security	
IS 647	IT Disaster Plan and Recovery	
IS 656	Comm & Network Technologies	
Total Credit Hours		30

¹ The Thesis option offers a student an opportunity for serious investigation into an area of interest by completing a 3 credit research course (CYBR 680 Research in Cybersecurity) and a 3 credit thesis (CYBR 681 Thesis) course. 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. A thesis option can be taken after the completion of 12 credit hours. The 6 CR of the thesis option courses cannot be combined in a semester.

Network Security

Code	Title	Credit Hours
CYBR 535/435	Cyber Risk	3
CYBR 542/442	Cyber Operations	3
CYBR 625	Applied Cryptography	3
IS 656	Comm & Network Technologies	3

Application Security

Code	Title	Credit Hours
CYBR 500/400	Computer Security Design	3
CYBR 535/435	Cyber Risk	3
CYBR 625	Applied Cryptography (Also listed in the Network Security Concentration)	3
IS 646	Computer Sys Security	3

Security Management

Code	Title	Credit Hours
CYBR 500/400	Computer Security Design	3
CYBR 542/442	Cyber Operations	3

IS 631	Information Security	3
IS 647	IT Disaster Plan and Recovery	3

Plan of Study

Following is a typical two-year study plan for a full time (9 credit hours a semester) students:

Course	Title	Credit Hours
First Year		
First Semester		
CYBR 510	Intro to Cybersecurity	3
CYBR 530	Cybersec Policies & Mgmt	3
CYBR 615	Cyber Vulnerability Assess	3
Credit Hours		9

Second Semester		
CYBR 620	Cyberwarfare	3
Concentration Course 1		3
Elective Course 1		3
Credit Hours		9

Second Year		
Third Semester		
Select one of the following:		3
CYBR 680	Research in Cybersecurity ¹	
Core Elective 1		
Concentration Course 2		3
Elective Course 2		3
Select one of the following:		3
CYBR 681	Thesis ²	
Core Elective 2		
Credit Hours		12
Total Credit Hours		30

¹ Prerequisite CYBR 510 Intro to Cybersecurity
² Prerequisite CYBR 680 Research in Cybersecurity (thesis option)

Note: All four Core Required courses will be offered every semester. However, some elective courses may be offered just one semester a year. Students should work closely with an advisor in developing a study plan.

Data Science, M.S. Overview

The Master of Science in Data Science (M.S.D.S.) provides students with technical expertise in computational modeling, data collection and integration, data storage and retrieval, data processing, modeling and analytics, and visualization. Students graduating from this program will be able to handle large data sets (big data), write software to work with these large data sets, and apply the statistical skills to model and analyze sub-data sets of interest. The job opportunities in this field are rapidly growing.

Minimum admission requirement for full admission includes completion of a four-year bachelor's degree in Data Science, Computer Science, Statistics, Mathematics, or related program with GPA of 2.75 or higher on 4.0 scale. Applicants with a baccalaureate degree

in a major other than computer science or related program may be admitted to the program and must successfully complete the following three additional bridge courses with a grade of *B* or above in the first two semesters of the program:

- Data Structure and Algorithms (CS 210)
- Data Engineering (CS 410)
- Applied Probability and Statistics (ST A 345)

Whether an applicant meets the above requirements will be based on the information provided in the admission application and transcripts. International students must meet MU English proficiency standards and all other admission criteria prior to registering for the first semester of courses.

The M.S.D.S. degree requires 30 credit hours (CR) of graduate work. The 30 CR is composed of the following components:

- Required core courses (18 CR)
- Domain Emphasis (12 CR)
The Domain Emphasis gives students a good understanding of a particular domain. A student is required to take 9 credits hours in one domain emphasis and 3 credit hours of free elective in any of the three domain areas:
 - Computing: This domain emphasis tackles computing areas including high performance computing, cloud computing, IoT, Artificial Intelligence, Cybersecurity, bioinformatics, etc.
 - Information Systems: This domain emphasizes the use of information technology and their expected utility of their information systems.
 - Predictive Analytics: This domain emphasis gives students the opportunity to learn the use of various statistical modelling techniques that are applicable to predictive analytics.

Thesis Option in Domain Emphasis

Students may choose a thesis option replacing two courses from in the Domain Emphasis. The thesis option (Thesis I and 2) offers students an opportunity for in-depth understanding and investigation into an area of interest. 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. The thesis option can be taken after the completion of 12 credit hours. The 6 CR of the thesis option cannot be combined in a semester. If a student in the thesis option wishes to switch to the non-thesis option, the credit hours for the thesis will not count toward fulfilling the graduation requirement.

Code	Title	Credit Hours
Required Core Courses		
CS 511	Advanced Programming	3
CS 630	Machine Learning	3
CS 660	Big Data Systems	3
CS 670	Visual Analytics	3
STA 535	Statistical Data Mining	3
STA 634	Stat Mtds for Researchers	3
Domain Emphasis - choose one		12
Computing (see below)		
Information Systems (see below)		

Predictive Analytics (see below)		
Total Credit Hours		30
Code	Title	Credit Hours
Computing Domain		
Select 9 hours from the following		9
CS 505	Computing for Bioinformatics	
CS 540	Digital Image Processing	
CS 600	Advanced Web Technology	
CS 601	The Internet of Things	
CS 602	Cloud Computing	
CS 620	Applied Algorithms	
CS 645	Advanced Topics Bioinformatics	
CS 681	Thesis	
Free elective from any of the domain areas		3
Total Credit Hours		12
Code	Title	Credit Hours
Information Systems Domain		
Select 9 hours from the following:		9
IS 545	Healthcare Data Analytics	
IS 600	Management Information Systems	
IS 610	Systems Quality Assurance	
IS 621	Information Structures I	
IS 622	Emerging Tech in Info Systems	
IS 623	Database Management	
IS 624	Data Warehousing	
IS 665	Health Care Enterpr Info Syst	
IS 681	Thesis	
One free elective from any of the domain areas		3
Total Credit Hours		12
Code	Title	Credit Hours
Predictive Analytics Domain		
Select 9 hours from the following:		9
STA 512	Regression Analysis	
STA 513	Experimental Designs	
STA 520	Nonparametric Statistics	
STA 564	Statistical Computing	
STA 570	Applied Survival Analysis	
STA 662	Appl Multivariate Stat Methods	
STA 663	Time Series Forecasting	
STA 664	Bayesian Statistics	
STA 665	Advanced Stat Learning	
STA 681	Thesis	
One free elective from any of the domain areas		3
Total Credit Hours		12

Electrical and Computer Engineering M.S.E.E.

Program Description

The Master of Science in Electrical and Computer Engineering (M.S.E.E.) degree is designed to provide students with the knowledge, skill, and professional practices needed to develop and design electrical or computer 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: <https://www.marshall.edu/graduate/admissions/>. Each applicant must have an undergraduate engineering degree from either an accredited ABET curriculum or an internationally recognized program.

1. If applicants have an undergraduate 2.5 or higher GPA on a 4.0 scale and have already passed the PE exam in the major for which they are applying (official copy of certificate to be sent to the Marshall University Graduate Admissions Office), their applications will be accepted.
2. If applicants have an undergraduate GPA of 3.0 or higher on a 4.0 scale in an engineering major closely related to that for which they are applying, their applications will be evaluated on a case-by-case basis.
3. If applicants have an undergraduate GPA between a 2.5 and 3.0 on a 4.0 scale in an engineering major closely related to that for which they are applying, applicants must take the GRE exam or pass the FE exam, and have their official GRE scores or official FE certificate sent to the Marshall University Graduate Admissions office. The applications will be evaluated on a case-by-case basis.

At least one letter of recommendation is required for all applicants.

International applicants must provide proof of English proficiency with a minimum score of 6.5 on IELTS, a score of 80 on the TOEFL IBT (or 550 paper-based), or by holding an approved degree from an accepted, regionally accredited university within the United States. International applicants must meet all other admission criteria prior to being admitted to the program and registering for the first semester of courses.

A current non-degree or degree-seeking Marshall University student who holds an undergraduate engineering degree, may apply to be considered for admission to the M.S.E. degree program if s/he has at least a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of M.S.E. courses. For international students, the English requirements stated above must still be satisfied.

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.

Program Requirements

The Master of Science in Electrical and Computer Engineering (M.S.E.E.) degree is designed to provide students with the knowledge, skill, and

professional practices needed to develop and design electrical and computer engineering related systems. The program also prepares students who desire to pursue further graduate work leading to a Ph.D. degree.

Each degree candidate is required to complete at least 30 graduate credit hours, depending on the option chosen below (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.

Examples of focus areas include

- power; signal processing;
- control and embedded systems;
- communications and integrated systems;
- computer architecture;
- computer vision and machine intelligence; and
- network and security.

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 thesis option or the coursework-only option after consultation with their academic advisor.

Focus Courses

(9 CR)

All graduate students in the M.S.E.E. program must develop a graduate focus area of study, with prior approval from their advisor and the department head. The focus area should consist of at least 9 CR of graduate study in electrical and computer engineering (EE 600 or higher) and be related to the student's technical and professional development interests. Examples of focus areas include power; signal processing; control and embedded systems; communications and integrated systems; computer architecture; computer vision and machine intelligence; and network and security.

4.3.3 Elective Courses

(3 - 12 CR)

Graduate students pursuing the thesis option must complete a minimum of 3 CR of elective courses. Graduate students pursuing the design project option must complete a minimum of 6 CR of elective courses. Graduate students pursuing the Coursework Only Option must complete a minimum of 12 CR of elective courses. The elective courses must be approved by the advisor.

Comprehensive Assessment

(3-6 CR)

Thesis Option (6 CR)

Prior to completing 12 semester credit hours of graduate work, students should prepare and present a formal thesis proposal to their

faculty advisor. An acceptable proposal (including a statement of work, extensive literature search, and proposed timeline), signed by the student and approved by their faculty advisor and department head, is required prior to registering for thesis credits.

Students must form a graduate thesis committee in coordination with their advisor and present their proposal to their committee for review and approval during the first semester in which they have registered for thesis credit. Students are required to deliver a successful written and oral presentation of their thesis.

Coursework-Only Option (NC)

The Master of Science degree may be completed without the preparation of a formal research thesis or report. Instead, a student may be permitted to enroll in a no thesis/no report (coursework only) program which involves additional coursework. The student must complete at least thirty-three graduate credits of approved courses. During the first semester of the M.S. program; the student should select an advisor. Each student will have an individual Program of Courses approved by the student's assigned advisor and the division's chair by the end of the first semester of the program. For this option only, the student must satisfactorily complete the comprehensive examination prior to graduation.

Plan of Study

Core Courses

All graduate students in the M.S.E.E. program are required to complete four required core courses:

Code	Title	Credit Hours
EE 606	Electrical Analysis	3
EE 602	Random Signals & Noise	3
EE 607	Adv Electrical Engr	3
EE 608	Research Methods ¹	3
Total Credit Hours		12

¹ Another 600-level EE course approved by the advisor and department head can be substituted for the coursework-only option.

Students are required to complete a Plan of Study form in consultation with their academic advisors by the end of the first semester in the program.

Approved Elective Courses

- Any ME (Mechanical 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
- Any CS (Computer Science) course approved in advance by the student's advisor

Engineering Management, M.S.E.

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, Civil and 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: <https://www.marshall.edu/graduate/admissions/>. Each applicant must have an undergraduate engineering degree from either an accredited ABET curriculum or an internationally recognized program.

1. If applicants have an undergraduate 2.5 or higher GPA on a 4.0 scale and have already passed the PE exam in the major for which they are applying (official copy of certificate to be sent to the Marshall University Graduate Admissions Office), their applications will be accepted.
2. If applicants have an undergraduate GPA of 3.0 or higher on a 4.0 scale in an engineering major closely related to that for which they are applying, their applications will be evaluated on a case-by-case basis.
3. If applicants have an undergraduate GPA between a 2.5 and 3.0 on a 4.0 scale in an engineering major closely related to that for which they are applying, applicants must take the GRE exam or pass the FE exam, and have their official GRE scores or official FE certificate sent to the Marshall University Graduate Admissions office. The applications will be evaluated on a case-by-case basis.

At least one letter of recommendation is required for all applicants.

International applicants must provide proof of English proficiency with a minimum score of 6.5 on IELTS, a score of 80 on the TOEFL IBT (or 550 paper-based), or by holding an approved degree from an accepted, regionally accredited university within the United States. International applicants must meet all other admission criteria prior to being admitted to the program and registering for the first semester of courses.

A current non-degree or degree-seeking Marshall University student who holds an undergraduate engineering degree, may apply to be considered for admission to the M.S.E. degree program if s/he has at least a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of M.S.E. courses. For international students, the English requirements stated above must still be satisfied.

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.

Program Requirements

Each degree candidate is required to complete at least 30 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 a 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 Research) 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 complete 30 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 no more than once per semester for any student. If the student does not pass the exam within three attempts, the student will be dismissed from the program.

Plan of Study

Coursework-Only Option

Code	Title	Credit Hours
Required Courses		
EM 620	Mgt Tech HR & Orgs	3
EM 660	Project Management	3
EM 668	Operations Management	3
EM 670	Seminar in Engineering Mgt	3
EM 675	Engineering Economics (or TM equivalent)	3
EM 694	Engineering Law	3

or ES 550	Environmental Law & Policy	
ENGR 610	Applied Statistics	3
Elective Courses		
Select 9 hours from approved Engineering Management electives (p. 168)		9
Total Credit Hours		30

Project Option

Code	Title	Credit Hours
Required Courses		
EM 620	Mgt Tech HR & Orgs	3
EM 660	Project Management	3
EM 668	Operations Management	3
EM 670	Seminar in Engineering Mgt	3
EM 675	Engineering Economics (or TM equivalent)	3
EM 694	Engineering Law	3
or ES 550	Environmental Law & Policy	
ENGR 610	Applied Statistics	3
ENGR 699	Comprehensive Project	3
Elective Courses		
Select 6 hours from approved Engineering Management electives (p. 168)		6
Total Credit Hours		30

Thesis Option

Code	Title	Credit Hours
Required Courses		
EM 620	Mgt Tech HR & Orgs	3
EM 660	Project Management	3
EM 668	Operations Management	3
EM 670	Seminar in Engineering Mgt	3
EM 675	Engineering Economics (or TM equivalent)	3
EM 694	Engineering Law	3
or ES 550	Environmental Law & Policy	
ENGR 610	Applied Statistics	3
ENGR 682	Research	6
Elective Courses		
Select 3 hours from approved Engineering Management electives (p. 168)		3
Total Credit Hours		30

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.

Environmental Science, Graduate Minor

Graduate students from other majors may obtain a graduate Minor in Environmental Science by completing any three Environmental Science 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 Environmental Science Program Coordinator prior to the student taking the courses.

Environmental Science, M.S.

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 (<http://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:

CHM 205 General, Organic, and Biochem and MTH 130 College Algebra 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; or
- 10 years relevant work experience.

Program 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 9-12 credit hours of core courses; 6 credit hours of

required courses; and 18-21 credit hours of electives. At least 18 credit hours must be at the 600 level.

Students may choose to complete either the project option or the thesis option, after consultation with their academic advisor. Students must have a project or thesis proposal approved by their project or thesis advisor prior to enrolling in project (TE 699 Comprehensive Project) or thesis (ES 680 Thesis).

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 a Comprehensive Project (TE 699, 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 (ES 680) 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.

Plan of Study

Code	Title	Credit Hours
Core Courses		
Select one of the following:		3
EM 660	Project Management	
ES 620	Environmental Management Sys	
TM 610	Mgmt of Innovation & Tech	
ENGR 610	Applied Statistics	3
TE 699	Comprehensive Project	3
or ES 680	Thesis	
Additional Degree Requirements		
<i>Required Courses</i>		
ES 514	Environmental Risk Assessment	3
Select one of the following:		3
ES 550	Environmental Law & Policy	
ES 640	Groundwater Princ & Monitoring	
ES 655	Environmental Ethics	
Electives		21
On completion of the M.S. in 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 18-21 credit hours of elective courses and use them to satisfy proficiency courses. Electives can be chosen from Environmental Science or any program within CECS. Additionally, electives from the College of Science, Department of Public Health, or Department of Geography will generally be approved. Graduate courses from other programs will be considered. 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.		
Total Credit Hours		36

¹ To fulfill the Core requirement, 3 credit hours must be satisfied by the TE 699 Comprehensive Project (to complete a comprehensive project) **or** 6 credit hours of ES 680 Thesis (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.

Information Security, Graduate Certificate

Evidence of information security coursework is required for many federal and Department of Defense (DoD) funded projects. This certificate will typically 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 (<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 Information Security. The admissions requirements for the certificate program are the same as for the Technology Management M.S. program.

Plan of Study

Code	Title	Credit Hours
IS 631	Information Security	3
IS 656	Comm & Network Technologies	3
IS 646	Computer Sys Security	3
IS 647	IT Disaster Plan and Recovery	3
TM 615	Info Tech Strategies	3
Total Credit Hours		15

Information Systems, M.S. Program Description

The Information Systems program addresses the effective analysis, design, creation, management and evaluation of computing systems for individuals and organizations. The Information-systems professional is to understand and improve the ways organizations derive value from information and Marshall's Information Systems program offers an Immersive educational experience to students at the intersection of business, technology, and the human element. An M.S. in Information Systems degree provides graduates with the knowledge and skills to :

- Use information technology to improve organizational effectiveness;
- Manage complex business and information system challenges;

- Communicate and lead the team effectively in defining business needs and opportunities working with colleagues.

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/>).

A four-year bachelor's degree in a major related to information systems with a GPA of 2.75 or higher out of 4.0 is required. Applicants with a four-year bachelor's degree in a major other than an information systems-related program may be admitted to the program with a condition of successful completion of the following two bridge courses with a grade of *B* or above in the first semesters of the program:

- Programming Languages (CS 110 Computer Science I)
- Database Management Systems (CS 410 Database Engineering)

Foreign nationals must provide proof of English proficiency with a minimum score 6.5 in IELTS or 80 on TOEFL IBT (or 550 paper-based) 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 requirements will be determined by the chair or designee of the Weisberg Division of Computer Science, based on the information provided in the admission application and transcripts.

Program Requirements

Students must complete 30 graduate credit hours, including at least 24 credit hours at Marshall University. The degree consists of 21 credit hours of required courses and 9 hours of approved elective courses.

Plan of Study

Code	Title	Credit Hours
Required Courses		
IS 600	Management Information Systems	3
IS 605	Systems Analysis and Design	3
IS 610	Systems Quality Assurance	3
IS 621	Information Structures I	3
IS 622	Emerging Tech in Info Systems	3
IS 624	Data Warehousing	3
IS 647	IT Disaster Plan and Recovery	3
Electives		
Select three courses offered by the graduate programs of the Weisberg Division of Computer Science and approved by the student's advisor to complete the program. The thesis option as described below can be used to replace 6 credit electives.		9
Total Credit Hours		30

Thesis Option

(6 CR)

The thesis option offers a student an opportunity for serious investigation into an area of interest by completing a 3 credit Thesis I course and a 3 credit Thesis II course. Thesis work is typically conducted over two semesters and the 6 CR of the thesis option

courses cannot be combined in a semester. A thesis option can be taken after the completion of 12 credit hours. Students must summarize their thesis work in the form of a formal written document and deliver an oral presentation.

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: <https://www.marshall.edu/graduate/admissions/>. Each applicant must have an undergraduate engineering degree from either an accredited ABET curriculum or an internationally recognized program.

1. If applicants have an undergraduate 2.5 or higher GPA on a 4.0 scale and have already passed the PE exam in the major for which they are applying (official copy of certificate to be sent to the Marshall University Graduate Admissions Office), their applications will be accepted.
2. If applicants have an undergraduate GPA of 3.0 or higher on a 4.0 scale in an engineering major closely related to that for which they are applying, their applications will be evaluated on a case-by-case basis.
3. If applicants have an undergraduate GPA between a 2.5 and 3.0 on a 4.0 scale in an engineering major closely related to that for which they are applying, applicants must take the GRE exam or pass the FE exam, and have their official GRE scores or official FE certificate sent to the Marshall University Graduate Admissions office. The applications will be evaluated on a case-by-case basis.

At least one letter of recommendation is required for all applicants.

International applicants must provide proof of English proficiency with a minimum score of 6.5 on IELTS, a score of 80 on the TOEFL IBT (or 550 paper-based), or by holding an approved degree from an accepted, regionally accredited university within the United States. International applicants must meet all other admission criteria prior to being admitted to the program and registering for the first semester of courses.

A current non-degree or degree-seeking Marshall University student who holds an undergraduate engineering degree, may apply to be considered for admission to the M.S.E. degree program if s/he has at least a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of M.S.E. courses. For international students, the English requirements stated above must still be satisfied.

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.

Program Requirements

Each degree candidate is required to complete at least 30 graduate credit hours, 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 M.S. degree in Mechanical Engineering requires a student to take a sequence of courses that shows a "clearly discernible specialty or concentration." In consultation with his/her advisor, an M.S. student can develop a concentration specifically tailored to his/her interests and objectives. 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 thesis option or the coursework-only option after consultation with their academic advisors.

Accelerated Graduate Degree in Mechanical Engineering

Students enrolled in the Mechanical Engineering Accelerated Graduate Degree program can complete the bachelor's degree by lowering the number of undergraduate credits (up to 12) with up to 12 graduate credits that will apply to the master's degree in mechanical engineering. Please see the section on Accelerated Graduate Degrees in this catalog for further information.

1. *Thesis Option:* Three graduate ME, CE, ENGR or EE Courses (500 or 600 Level) can be taken to meet the Technical Electives requirement. In addition, ENGR 451 Intro to Proj Management can be substituted by EM 660 Project Management, or ME 420 Control Systems can be substituted by ME 560 Automation and Control.
2. *Coursework Option:* Three graduate ME, CE, ENGR or EE (500 or 600 Level) can be taken to meet the Technical Electives requirement. In addition, ENGR 451 Intro to Proj Management can be substituted by EM 660 Project Management, or ME 420 Control Systems can be substituted by ME 560 Automation and Control.

Applicants for the Accelerated Graduate Degree program in Mechanical Engineering must be undergraduate Mechanical Engineering students and have completed a minimum of 80 credit hours, including:

Code	Title	Credit Hours
ENGR 318	Fluid Mechanics	3
ENGR 335	Adv Engineering Analysis	3
ME 310	Thermodynamics II	3
ME 340	Machine Element Design	3
ME 455	Metallurgy	3

The applicant must have a minimum overall Grade Point Average of 3.30, with 3.3 in the major and no less than a B grade in the following courses:

Code	Title	Credit Hours
ENGR 335	Adv Engineering Analysis	3
ME 310	Thermodynamics II	3
ME 340	Machine Element Design	3
ME 455	Metallurgy	3

Plan of Study

Thesis Option

(30 hours)

The thesis option involves the completion of 6 HR of research (ENGR 682 Research) 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 Research). 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 Research). Thesis work is typically conducted over two semesters.

Code	Title	Credit Hours
ENGR 570	Finite Elements	3
ME 601	Advanced Engr Analysis I	3
Select one of the following:		3
ME 602	Advanced Engr Analysis II	
ENGR 610	Applied Statistics (with advisor approval)	
ME 604	Research Methods	3
Four Elective Courses (p. 172)		12
ENGR 682	Research	6
Total Credit Hours		30

Coursework-Only Option

(30 hours)

Students can complete 30 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.

Code	Title	Credit Hours
ENGR 570	Finite Elements	3
ME 601	Advanced Engr Analysis I	3
Select one of the following:		3
ME 602	Advanced Engr Analysis II	
ENGR 610	Applied Statistics (with advisor approval)	
Seven Elective Courses (p. 172)		21
Total Credit Hours		30

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.

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 (18 CR of the 36 CR should be with courses at the 600 level).

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:

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:

Code	Title	Credit Hours
MTH 130 	College Algebra	3
PHY 101 	Conceptual Physics	3
PHY 101L 	Conceptual Physics Lab	1
CHM 205	General, Organic, and Biochem	3

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.

Plan of Study

Area of Emphasis in Occupational Safety and Health

Code	Title	Credit Hours
Core Courses		
SFT 599	Dev & Mgt of Occup Safety Prog	3
SFT 610	Intro to Prof Safety & Health	3
SFT 630	Current Lit & Res in Safety	3
Required Courses		
SFT 540	Indust Fire Protection	3
SFT 554	Indust Hygiene I	3
SFT 597	Occup Sft & Health Prog Dev	3
SFT 645	Saf Engineering Equip Design	3
SFT 660	Appl Ergon and Hum Factors Eng	3
SFT 647L	Quan Indus Hygiene Lab	3
Total Credit Hours		27

Students may choose to complete either the project option or thesis option after consultation with their academic advisor.

Thesis Option

The thesis option involves completion of 3 CR from any 600-level, safety-related elective courses, and 6 CR of research (SFT 681 Thesis) under the direction of an advisor. 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 the first semester of SFT 681 Thesis). 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 the second semester of SFT 681 Thesis). Thesis work is typically conducted over two semesters.

Project Option

The project option involves completion of 6 CR from any 600-level, safety-related elective courses and complete 3 CR of comprehensive project (SFT 679 Problem Report). The comprehensive project involves the application coursework completed as part of the degree to a practical problem. Students will work 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 SFT 679 Problem Report (3 CR) during the semester in which their project completed and presented, but preliminary work on the project may commence before that semester.

Safety, Minor

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, Graduate Certificate

Completion of the five 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.

Plan of Study

Code	Title	Credit Hours
TM 610	Mgmt of Innovation & Tech	3
TM 612	Econ & Financial Analysis	3
TM 615	Info Tech Strategies	3
TM 620	Technology Planning	3
TM 630	Qual & Prod Methods	3
Total Credit Hours		15

Technology Management, M.S.

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.

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/>).

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.

Program Requirements

Degree requirements consist of five core courses (15 semester hours), four area-of-emphasis courses (12 semester hours), and a capstone project (3 semester hours), for a total of 30 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

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,
 - Project Management.
- Other courses may be taken with the permission of the student's advisor.

Information Security

- Information Security
- Communication and Network Technologies
- Computer Systems Security
- One additional 3 credit hour elective, chosen from TM, IS or Project Management courses, with permission of the student's advisor

Information Technology

Four approved courses from the following list:

- Computing and Network Technologies
- Geographic Information Systems
- Health Informatics
- Software Engineering
- Information Security
- Computer Systems Security
- Systems Analysis
- Database Management
- Data Warehousing
- Project Management
- 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
 - Project 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, Project Management. Some of these courses have prerequisites; students taking the courses must meet prerequisites.

Plan of Study

Code	Title	Credit Hours
Core Courses		
TM 610	Mgmt of Innovation & Tech	3
TM 612	Econ & Financial Analysis	3
TM 615	Info Tech Strategies	3
TM 620	Technology Planning	3
TM 630	Qual & Prod Methods	3
Area of Emphasis		
Select four courses from an Area of Emphasis		12
Capstone Project		
TM 699	TM Capstone Project	3
Total Credit Hours		30

- ¹ The Technology Management Capstone Project (TM 699 TM Capstone Project) will be work related, oriented toward the Area of Emphasis, and directed by an academic advisor.

Transportation and Infrastructure Engineering, M.S.E.

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, Civil and 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: <https://www.marshall.edu/graduate/admissions/>. Each applicant must have an undergraduate engineering degree from either an accredited ABET curriculum or an internationally recognized program.

1. If applicants have an undergraduate 2.5 or higher GPA on a 4.0 scale and have already passed the PE exam in the major for which they are applying (official copy of certificate to be sent to the Marshall University Graduate Admissions Office), their applications will be accepted.
2. If applicants have an undergraduate GPA of 3.0 or higher on a 4.0 scale in an engineering major closely related to that for which they are applying, their applications will be evaluated on a case-by-case basis.
3. If applicants have an undergraduate GPA between a 2.5 and 3.0 on a 4.0 scale in an engineering major closely related to that for which they are applying, applicants must take the GRE exam or pass the FE exam, and have their official GRE scores or official FE certificate sent to the Marshall University Graduate Admissions office. The applications will be evaluated on a case-by-case basis.

At least one letter of recommendation is required for all applicants.

International applicants must provide proof of English proficiency with a minimum score of 6.5 on IELTS, a score of 80 on the TOEFL IBT (or 550 paper-based), or by holding an approved degree from an accepted, regionally accredited university within the United States. International applicants must meet all other admission criteria prior to being admitted to the program and registering for the first semester of courses.

A current non-degree or degree-seeking Marshall University student who holds an undergraduate engineering degree, may apply to be considered for admission to the M.S.E. degree program if s/he has at least a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of M.S.E. courses. For international students, the English requirements stated above must still be satisfied.

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.

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

Code	Title	Credit Hours
CE 312	Structural Analysis	3
CE 342	Transportation Engineering	3
CE 413	Reinforced Concrete	3

Program Requirements

Each degree candidate is required to complete at least 30 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 a 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 Research) 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 complete 30 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 no more than once per semester for any student. If the student does not pass the exam within three attempts, the student will be dismissed from the program.

Transportation and Infrastructure Engineering

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.

Plan of Study Coursework-Only Option

Code	Title	Credit Hours
Select one of the following:		3
ENGR 610	Applied Statistics	
Other Advisor-approved MTH course		
EM 660	Project Management	3
Three Courses in Structural Engineering (p. 176)		9
Three Courses in Transportation Engineering (p. 176)		9
Two Elective Courses (p. 176)		6
Total Credit Hours		30

Project Option

Code	Title	Credit Hours
Select one of the following:		3
ENGR 610	Applied Statistics	
Other Advisor-approved MTH course		
Three Courses in Primary Focus (Structural Engineering or Transportation Engineering) (p. 176)		9

Two Courses in Secondary Focus (Structural Engineering or Transportation Engineering) (p. 176)		6
Three Elective Courses (p. 176)		9
ENGR 699	Comprehensive Project	3
Total Credit Hours		30

Thesis Option

Code	Title	Credit Hours
Select one of the following:		3
ENGR 610	Applied Statistics	
Other Advisor-approved MTH course		
Three Courses in Primary Focus (Structural Engineering or Transportation Engineering) (p. 176)		9
Two Courses in Secondary Focus (Structural Engineering or Transportation Engineering) (p. 176)		6
Two Elective Courses (p. 176)		6
ENGR 682	Research	6
Total Credit Hours		30

Structural Engineering and Transportation Engineering

Structural Engineering Courses

Code	Title	Credit Hours
CE 612	Advanced Steel Design	3
CE 614	Advanced Concrete Design	3
CE 616	Prestressed Concrete Design	3
CE 618	Bridge Engineering	3
ENGR 570	Finite Elements	3
ENGR 670	Advanced Stress Analysis	3

Transportation Engineering Courses

Code	Title	Credit Hours
CE 534	Geometric Highway Design	3
CE 538	Pavement Design	3
CE 634	Traffic Engineering	3
CE 635	Eval of Transportation Systems	3
CE 636	Transportation Planning	3
CE 637	Highway Safety Engineering	3

Approved Elective Courses for the Transportation and Infrastructure Engineering Major

- Any Transportation Engineering or Structural Engineering course not already taken.
- Other courses approved in advance by the student's advisor.

College of Health Professions

Contacts: Dr. Michael Prewitt, Dean

Website: <http://www.marshall.edu/cohp> (<http://www.marshall.edu/cohp/>)

cohp@marshall.edu

Programs

- Athletic Training (Professional), M.S. (p. 193)
- Biomechanics, M.S. (p. 195)
- Communication Disorders, M.S. (p. 196)
- Dietetics, Internship Certificate (p. 197)
- Dietetics, M.S. (p. 197)
- Exercise Science, M.S. (p. 198)
- Family Nurse Practitioner Program, Post Master's Certificate (p. 199)
- Nursing Administration Program, Post Master's Certificate (p. 199)
- Nursing Education Program, Post Master's Certificate (p. 200)
- Nursing, M.S.N. (p. 200)
- Physical Therapy, D.P.T. (p. 204)
- Public Health, M.P.H. (p. 207)
- Social Work, M.S.W. (p. 208)
- Sport Administration, M.S. (p. 210)
- Sport Studies, Minor (p. 211)

Courses

Communication Disorders

CD 515 Professional Literacies SLP 3 Credit hours

Investigation into contemporary understandings of literacy using current communication and information technologies and resources.

Grade Mode: Normal Grading Mode

CD 524L DX Processes Laboratory 1-3 Credit hours

Observation and practice in evaluating individuals with communication disorders.

Grade Mode: Normal Grading Mode

CD 526L TX Procedures I Lab 1 Credit hour

Observation of individuals with communication disorders and introduction to analysis of the clinical process.

Grade Mode: Credit/No Credit Grade Only

CD 527 Therapeutic Procedures II 3 Credit hours

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.

Grade Mode: Normal Grading Mode

CD 527L TX Procedures II Lab 1 Credit hour

Observation and in-depth analysis of the clinical process.

Grade Mode: Credit/No Credit Grade Only

CD 563 Aural Rehabilitation 3 Credit hours

Examination of various intervention strategies appropriate for individuals with hearing impairments; techniques for assessing degree of handicap.

Grade Mode: Normal Grading Mode

CD 570 Clinical Practicum I 1-3 Credit hours

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. (Permission of the Instructor).

Grade Mode: Normal Grading Mode

CD 570L Intro Clinical Principles 1 Credit hour

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.

Co-req: CD 570

Grade Mode: Credit/No Credit Grade Only

CD 571 Clinical Practicum II 1-3 Credit hours

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. (Pre-requisite CD 570; Permission of the Instructor).

Pre-req: CD 570.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

CD 571L Clin Prin of Assessment 1 Credit hour

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.

Pre-req: CD 570L.

Co-req: CD 571

Attributes: No Textbook Required

Grade Mode: Credit/No Credit Grade Only

CD 580 Special Topics 1-4 Credit hours

PR: Permission of chair.

Grade Mode: Normal Grading Mode

CD 581 Special Topics 1-4 Credit hours

PR: Permission of chair.

Grade Mode: Normal Grading Mode

CD 582 Special Topics 1-4 Credit hours

PR: Permission of chair.

Grade Mode: Normal Grading Mode

CD 583 Special Topics 1-4 Credit hours

PR: Permission of chair.

Grade Mode: Normal Grading Mode

CD 585 Independent Study 1-4 Credit hours

PR: Permission of chair.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

CD 586 Independent Study 1-4 Credit hours

PR: Permission of chair.

Grade Mode: Normal Grading Mode

CD 587 Independent Study 1-4 Credit hours

PR: Permission of chair

Grade Mode: Normal Grading Mode

CD 588 Independent Study 1-4 Credit hours

PR: Permission of chair

Grade Mode: Normal Grading Mode

CD 601 Intro to Graduate Studies**3 Credit hours**

An introduction to graduate studies, including clinical and research application; quantitative and qualitative research methodology; critical analysis of clinical instrument and research literature.

Grade Mode: Normal Grading Mode**CD 602 Prof Issues in SLP****2 Credit hours**

This course will discuss current professional issues in speech-language-pathology, including ethics, reimbursement, multiculturalism, counseling, professional conduct, advocacy, and scope of practice.

Grade Mode: Normal Grading Mode**CD 620 CD: Cleft Palate & Voice****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CD 621 Seminar On Cleft Palate****3 Credit hours**

Intensive study of communication problems and treatment associated with the cleft palate; critical analysis of research literature; individual projects.

Grade Mode: Normal Grading Mode**CD 622 Phonological Disorders****3 Credit hours**

Advanced study of the phonological component of the linguistic system. Emphasis on phonological disorders in children; social dialects; critical analysis of literature.

Grade Mode: Normal Grading Mode**CD 623 Fluency Disorders****3 Credit hours**

Detailed evaluation of theories of fluency disorders and relevant therapies; critical analyses of research literature.

Grade Mode: Normal Grading Mode**CD 624 Foundations Neuro Comm Dis****3 Credit hours**

Study of the neurological bases of speech; etiologies and symptoms of dysarthrias and apraxias; principles of assessment and treatment.

Grade Mode: Normal Grading Mode**CD 625 Acquired Aphasia****3 Credit hours**

Advanced study of the acquired aphasias and commonly co-occurring motor speech disorders; critical analysis of research literature. (PR: Permission of instructor) Advanced study of the acquired aphasia; critical analysis of research literature.

Grade Mode: Normal Grading Mode**CD 628 Child Lang Dis: Inf/Presch****3 Credit hours**

Advanced study of the development of language; language sampling procedures, analysis and application.

Grade Mode: Normal Grading Mode**CD 629 Chld Lang Dis: Sch/Adoles****3 Credit hours**

Advanced study of current topics in language disorders in children; critical analysis of research literature.

Grade Mode: Normal Grading Mode**CD 630 Cognitive Comm Disorders****3 Credit hours**

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]

Grade Mode: Normal Grading Mode**CD 650 Special Topics****1-4 Credit hours**

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Credit/No Credit Grade Only**CD 651 Special Topics****1-4 Credit hours**

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Credit/No Credit Grade Only**CD 652 Special Topics****1-4 Credit hours**

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Credit/No Credit Grade Only**CD 653 Special Topics****1-4 Credit hours**

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Credit/No Credit Grade Only**CD 660 Sp Pop: Clinical Consideration****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CD 670 Advanced Clinical Practicum I****1-6 Credit hours**

Supervised clinical practicum in the Marshall University Speech and Hearing Center and in affiliated educational, rehabilitation and medical settings with corresponding professional responsibilities. (PR: CD 571 or permission of instructor)

Pre-req: CD 570.**Co-req:** CD 670L**Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**CD 670L Clin ISS In Health Care****1 Credit hour**

This seminar will present principles related to clinical services in speech-language pathology in a variety of health care settings.

Pre-req: CD 571L.**Co-req:** CD 670**Attributes:** No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**CD 674 Clin Pract in the Schools****1 Credit hour**

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)

Pre-req: CD 571.**Co-req:** CD 674L**Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**CD 674L Consideration in Public School****1 Credit hour**

This lab/seminar will present special considerations related to providing services in speech-language pathology in the public school setting.

Pre-req: CD 571L.**Co-req:** CD 674**Attributes:** No Textbook Required**Grade Mode:** Credit/No Credit Grade Only

CD 675 Advanced Clin Pract II 1 Credit hour 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: Advanced Clinical Practicum I) Pre-req: CD 674. Co-req: CD 675L Grade Mode: Normal Grading Mode	DTS 581 Special Topics 1-4 Credit hours Grade Mode: Normal Grading Mode DTS 585 Independent Study 1-4 Credit hours Grade Mode: Normal Grading Mode DTS 586 Independent Study 1-4 Credit hours Grade Mode: Normal Grading Mode DTS 670 Adv Med Nutrition Therapy I 3 Credit hours Pathophysiology, medical nutrition therapy, and current research of common and unique disease states and conditions. Grade Mode: Normal Grading Mode
CD 675L Prof Considerations 1 Credit hour 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. (co-requisite to CD 675: Advanced Clinical Practicum II) Pre-req: CD 674. Co-req: CD 675 Grade Mode: Normal Grading Mode	DTS 671 Sports Nutrition 3 Credit hours An in-depth investigation of sports nutrition, with emphasis on nutrient functions and their roles in physical activity as well as nutrition counseling strategies for athletes. Grade Mode: Normal Grading Mode DTS 672 Diabetes & Nutrition Mngt 3 Credit hours In-depth investigation of diabetes mellitus, including disease state, types, diagnosis and treatment options, medications to treat, exercise, complications, and medical nutrition therapy and counseling strategies. Grade Mode: Normal Grading Mode
CD 681 Thesis 1-6 Credit hours PR: Permission of chair. Grade Mode: Normal Grading Mode	DTS 673 Administrative Dietetics 3 Credit hours Overview of management/administrative concepts for directing resources within a variety of food and nutritional service/ programs. Planning, implementing, and evaluation techniques to measure organizational performance. Applied research in dietetics. (PR: Dietetic Internship Students or permission) Grade Mode: Normal Grading Mode
CD 685 Independent Study 1-4 Credit hours PR: Permission of chair. Grade Mode: Normal Grading Mode	DTS 674 Food Allergies & Intoler 3 Credit hours Advanced study of food allergies and intolerances and the roles of nutrition in food allergy prevention and lifestyle management. Grade Mode: Normal Grading Mode
CD 686 Independent Study 1-4 Credit hours PR: Permission of chair. Grade Mode: Normal Grading Mode	DTS 675 Dietetic Internship I 3 Credit hours Supervised practice experience focusing on the nutritional screening assessment and education of individuals and groups across the lifespan in a variety of community and long-term settings. Grade Mode: Normal Grading Mode DTS 676 Dietetic Internship II 3 Credit hours Supervised practice experience focusing on the procurement, production, distribution, and service within school and hospital based food service management systems. Pre-req: DTS 675. Grade Mode: Normal Grading Mode
CD 687 Independent Study 1-4 Credit hours PR: Permission of chair. Grade Mode: Normal Grading Mode	DTS 677 Dietetic Internship III 3 Credit hours Supervised practice experience focusing on skills required to become a dietitian in a clinical setting. Nutritional screening assessment and education of individuals with complex medical conditions will be emphasized. Pre-req: DTS 676. Grade Mode: Normal Grading Mode
CD 688 Independent Study 1-4 Credit hours PR: Permission of chair. Grade Mode: Normal Grading Mode	DTS 679 Adv Med Nutrition Therapy II 3 Credit hours The continued study of pathophysiology, medical nutrition therapy, and current research of common and unique disease states and conditions. Pre-req: DTS 670. Grade Mode: Normal Grading Mode
CD 690 Seminar 1-4 Credit hours Topics in Communication Disorders not covered in other courses; topics vary from semester to semester. (PR: Permission of Chair) Attributes: No Textbook Required Grade Mode: Normal Grading Mode	
CD 691 Dysphagia & Assoc Motor Sp Dis 1-4 Credit hours The study of normal and disordered swallowing across the lifespan including assessment, treatment, and differential diagnosis of dysphagia and associated motor speech disorders; critical analysis of the literature. (PR: CD 624 or Permission of Instructor) Topics in Communication Disorders not covered in other courses; topics vary from semester to semester. (PR: Permission of Chair) Grade Mode: Normal Grading Mode	
CD 692 Seminar 1-4 Credit hours Topics in Communication Disorders not covered in other courses; topics vary from semester to semester. (PR: Permission of Chair) Grade Mode: Normal Grading Mode	
CD 693 Seminar 1-4 Credit hours Topics in Communication Disorders not covered in other courses; topics vary from semester to semester. (PR: Permission of Chair) Grade Mode: Normal Grading Mode	
Dietetics DTS 580 Special Topics 1-4 Credit hours Grade Mode: Normal Grading Mode	

DTS 681 Thesis	1-6 Credit hours	ESS 582 Special Topics	1-4 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
DTS 690 Sem DTS Research Comm	1-4 Credit hours	ESS 583 Special Topics	1-4 Credit hours
Extensive reading and reports from current literature in selected areas of dietetics.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ESS 585 Independent Study	1-4 Credit hours
		Attributes: No Textbook Required	
		Grade Mode: Normal Grading Mode	
Exercise Science and Sport		ESS 586 Independent Study	1-4 Credit hours
ESS 515 PE in Pre Elem Mid School	3 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ESS 587 Independent Study	1-4 Credit hours
ESS 517 Teaching College Phys Ed	3 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ESS 588 Independent Study	1-4 Credit hours
ESS 542 Strength and Cond	3 Credit hours	Grade Mode: Normal Grading Mode	
Delivery of strength and conditioning principles related to musculoskeletal movement and the utilization of energy systems for the development and administration of sport-based exercise programs.		ESS 591 Worskhop in Physical Ed	1-3 Credit hours
Pre-req: ESS 543 (may be taken concurrently) with a minimum grade of D.		Grade Mode: Normal Grading Mode	
Concurrent PR: ESS 543		ESS 592 Workshop in Physical Ed	1-3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ESS 543 Strength and Cond Lab	1 Credit hour	ESS 593 Workshop in Physical Ed	1-3 Credit hours
Direct application of strength and conditioning principles in the development and administration of sport-based exercise programs. Emphasis will be on the training and demonstration of proper communication and technique regarding the components of flexibility, resistance training, power-lifting, Olympic weightlifting, and speed and agility.		Grade Mode: Normal Grading Mode	
Pre-req: ESS 542 (may be taken concurrently) with a minimum grade of D.		ESS 594 Workshop in Physical Ed	1-3 Credit hours
Concurrent PR: ESS 542		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ESS 600 Adv. Readings in Sports Ethics	3 Credit hours
ESS 560 Professional Development	1-4 Credit hours	A critical analysis of and engagement with leading ethical thinking as applied to sport.	
Grade Mode: Credit/No Credit Grade Only		Grade Mode: Normal Grading Mode	
ESS 561 Professional Development	1-4 Credit hours	ESS 601 Adv Exercise Testing	3 Credit hours
Grade Mode: Credit/No Credit Grade Only		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.	
ESS 562 Professional Development	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Credit/No Credit Grade Only		ESS 608 Motor Learning & Perform	3 Credit hours
ESS 563 Professional Development	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Credit/No Credit Grade Only		ESS 610 Phys Growth & Motor Devel	3 Credit hours
ESS 564 Professional Development	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Credit/No Credit Grade Only		ESS 621 Adv Exercise Physiology I	3 Credit hours
ESS 569 Curriculum Development PE	3 Credit hours	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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ESS 576 Theo Prac Aspect Coaching	3 Credit hours	ESS 622 PE for Atypical Individ	3 Credit hours
An in depth study of the principles and problems of coaching.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ESS 623 Adv Ex Phys II	3 Credit hours
ESS 578 Exercise Metabolism	3 Credit hours	Addresses neuromuscular plasticity and physiological adaptations to environmental stimuli during exercise.	
Addresses the principles of sport nutrition and its effects on physiological systems, body composition, and human exercise performance.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ESS 626 Hist & Phil PE & Sports	3 Credit hours
ESS 580 Special Topics	1-4 Credit hours	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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ESS 581 Special Topics	1-4 Credit hours		
Grade Mode: Normal Grading Mode			

ESS 631 Perform Tech & Analysis**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ESS 632 Perform Tech & Analysis****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ESS 633 Perform Tech & Analysis****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ESS 634 Perform Tech & Analysis****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ESS 636 Structural Kinesiology****3 Credit hours**

Instruction and laboratory experiences involving musculoskeletal anatomy and biomechanics as applied to human movement.

Grade Mode: Normal Grading Mode**ESS 641 Theor/Factor Ath Perform****3 Credit hours****Grade Mode:** Normal Grading Mode**ESS 642 Devise Train & Cond Prog****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ESS 644 Cardio Exer Physiol****3 Credit hours**

Detailed study of the anatomy and physiology of the cardiovascular system and its response to acute and chronic exercise.

Pre-req: ESS 621.**Grade Mode:** Normal Grading Mode**ESS 645 Respir Exer Physiol****3 Credit hours**

Detailed study of the anatomy and physiology of the respiratory system and its response to acute and chronic exercise.

Pre-req: ESS 621 and ESS 623 and ESS 670.**Grade Mode:** Normal Grading Mode**ESS 646 Neuro Exer Physiol/Plas****3 Credit hours**

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.

Pre-req: ESS 621 and ESS 623 and ESS 670.**Grade Mode:** Normal Grading Mode**ESS 651 Mech Analysis Motor Skill****3 Credit hours**

Analysis of motor skills through the application of the principles of physics.

Grade Mode: Normal Grading Mode**ESS 654 Contemp & Compar Phys Ed****3 Credit hours**

A study of objectives, methods, personnel, facilities, and program uniqueness of the physical education of selected nations and world regions. National sport programs, international sport programs and competition, and international professional organizations are considered.

Grade Mode: Normal Grading Mode**ESS 660 Internship****3-6 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**ESS 665 Adv Test & Measure Phy Ed****3 Credit hours****Grade Mode:** Normal Grading Mode**ESS 670 Research Meth in Kinesiology****3 Credit hours**

An examination of experimental research design, laboratory methods, construction of instruments, execution of research, and presentation of research papers with an emphasis on science.

Grade Mode: Normal Grading Mode**ESS 681 Thesis****1-6 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**ESS 682 Prev & Rehab Physiology****3 Credit hours**

An examination of experimental research design, laboratory methods, construction of instruments, execution of research, and presentation of research papers with an emphasis on science.

Grade Mode: Normal Grading Mode**ESS 683 Cardiovascular Assessment****3 Credit hours**

Considers cardiovascular assessment strategies, including EKG interpretation, related medical profile variables, patient/client/athlete screening and risk stratification.

Grade Mode: Normal Grading Mode**ESS 685 Admin Prev Rehab Med Prog****3 Credit hours****Grade Mode:** Normal Grading Mode**ESS 686 Behav Asp Well Dis Rehab****3 Credit hours****Grade Mode:** Normal Grading Mode**ESS 687 Cardiac Life Support****3 Credit hours****Grade Mode:** Normal Grading Mode

Health Professions

HP 605 The Role of EHR and PHR**3 Credit hours**

Students will be introduced to the main concepts and software applications of Electronic Health Records and Personal Health Records.

Grade Mode: Normal Grading Mode**HP 610 Analytics for Healthcare****3 Credit hours**

Data analytic tools useful in healthcare data analysis and healthcare administrative decision-making including health data analysis, visualization, and reporting techniques.

Grade Mode: Normal Grading Mode**HP 615 Health Quality and Safety****3 Credit hours**

Provide an experience that will prepare students to work effectively in professional positions, and to bridge the learning gained in course work with the world of practice.

Grade Mode: Normal Grading Mode**HP 620 Legal Health & Informat****3 Credit hours**

The course will introduce students to IT governance, health information ethic and legal requirements to improve health care processes, customer response and business competitiveness.

Grade Mode: Normal Grading Mode

HP 630 Research Methods and Data**3 Credit hours**

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 process.

Grade Mode: Normal Grading Mode

HP 650 Health Infor Practicum**3 Credit hours**

Provide an experience to prepare students to work effectively in professional positions, and bridge the learning gained in course work with the world of practice.

Pre-req: HP 605 and HCA 656.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

HP 686 Independent Study**1-4 Credit hours**

Independent Study relates to projects that do not fall specifically within an individual department's curriculum.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

HP 687 Independent Study**1-4 Credit hours**

Independent Study relates to projects that do not fall specifically within an individual department's curriculum.

Grade Mode: Normal Grading Mode

HP 688 Independent Study**1-4 Credit hours**

Independent Study relates to projects that do not fall specifically within an individual department's curriculum.

Grade Mode: Normal Grading Mode

Health Science**HS 505 Sport Psychology****3 Credit hours**

An examination of theory, research, and application of psychological principles related to sport and exercise.

Grade Mode: Normal Grading Mode

HS 512 Found Clinical Skills in AT**3 Credit hours**

Taping, bracing, spine boarding, airway and oxygen administration, and other advanced emergency and practical care techniques used in athletic training. (PR: program admissions; CR: HS 522)

Grade Mode: Normal Grading Mode

HS 515 Ath Trng Clinical Exp I**1-3 Credit hours**

To develop evaluation and treatment skills of the student under the direction of a BOC-certified Athletic Trainer. Requires completion of clinical hours and assigned competencies.

Grade Mode: Normal Grading Mode

HS 523 Ortho Assess Upper Extremity**4 Credit hours**

Orthopedic evaluation techniques of the neck and upper extremity for the athletic trainer.

Grade Mode: Normal Grading Mode

HS 524 Ortho Assess Lower Extremity**4 Credit hours**

Orthopedic evaluation techniques of the lower extremity for the athletic trainer.

Grade Mode: Normal Grading Mode

HS 525 Ath Trng Clinical Exp II**3 Credit hours**

To continue developing athletic training evaluation and treatment skills under the direction of a BOC-certified Athletic trainer. (PR: grade of B or higher in HS 515 and 75 clinical hours)

Pre-req: HS 515.

Grade Mode: Normal Grading Mode

HS 535 Biomech Instrument MatLab**3 Credit hours**

This course teaches students the skills to use biomechanical sensors as instruments for research, and the use of MatLab programming language to process the data they collect from their instruments.

Grade Mode: Normal Grading Mode

HS 548 Therapeutic Interventions I**4 Credit hours**

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.

Grade Mode: Normal Grading Mode

HS 549 Therapeutic Interventions II**4 Credit hours**

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.

Grade Mode: Normal Grading Mode

HS 560 Professional Development**1-4 Credit hours**

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 for degrees.

Grade Mode: Normal Grading Mode

HS 561 Professional Development**1-4 Credit hours**

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 for degrees.

Grade Mode: Normal Grading Mode

HS 562 Professional Development**1-4 Credit hours**

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 for degrees.

Grade Mode: Normal Grading Mode

HS 563 Professional Development**1-4 Credit hours**

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 for degrees.

Grade Mode: Normal Grading Mode

HS 564 Professional Development**1-4 Credit hours**

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 for degrees.

Grade Mode: Normal Grading Mode

HS 565 Pathomechanics**3 Credit hours**

An investigation into normal and abnormal human movement patterns in sport, the workplace, and in activities of daily living.

Grade Mode: Normal Grading Mode

HS 566 Biomechanical Analysis	3 Credit hours	HS 615 Kinematic Analysis App Biomech	3 Credit hours
The purpose of the course is to provide an advanced study of biomechanical concepts and their application to human movement and sport skills.		This course entails a study of kinematics as it relates to the analysis of human movement involving the mechanical and anatomical characteristics of physical skills through the utilization of research equipment.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
HS 578 Biomech Research Pract	1-6 Credit hours	HS 620 Subst Abuse & the Athlete	3 Credit hours
This course offers "hands-on" work within the biomechanics lab. The student will assist with current research. This experience that allows students to gain practical experience within a lab setting.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		HS 623 Adv Medical Aspect Sports	3 Credit hours
HS 580 Special Topics	1-4 Credit hours	Emphasis on the development of skills in recognition of symptoms of illness, injuries and proper procedures of medical care.	
Attributes: No Textbook Required		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		HS 625 Evdnce Base Prac Ther Elec Agt	3 Credit hours
HS 581 Special Topics	1-4 Credit hours	An in-depth understanding of therapeutic modalities with an emphasis on evidence based literature.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
HS 582 Special Topics	1-4 Credit hours	HS 630 Seminar Athl Training	3 Credit hours
Grade Mode: Normal Grading Mode		A course designed to use scientific literature to enhance students preparation and knowledge of athletic training.	
HS 583 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		HS 634 Ath Trng Externship	3 Credit hours
HS 584 Special Topics in Health	1-4 Credit hours	Approved externship supervised by a clinical preceptor. Requires 225 clinical hours that includes an immersion experience. (PR: HS 645, program permission)	
Grade Mode: Normal Grading Mode		Pre-req: HS 645.	
HS 585 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		HS 635 Kinetics in Biomech	3 Credit hours
HS 586 Independent Study	1-4 Credit hours	Students will gain knowledge regarding biomechanics technologies to measure kinetics, acquire the skills to investigate forces and the human body, and learn how to process, analyze, and interpret kinetic data.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
HS 587 Independent Study	1-4 Credit hours	HS 639 Exam of Gen Med Conditions	3 Credit hours
Grade Mode: Normal Grading Mode		A study of common general medical conditions and illnesses of physically active individuals and the proper methods of evaluating these complaints.	
HS 588 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		HS 640 Health Eval for the Ath Trn	3 Credit hours
HS 589 Independent Study	3 Credit hours	An indepth study of common problems and complaints of athletes and the proper method of evaluating those complaints.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
HS 591 Workshop in Phys Ed	1-3 Credit hours	HS 645 Ath Trng Clinical Exp III	3 Credit hours
Grade Mode: Normal Grading Mode		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: grade of B or higher in HS 525 and 225 clinical hours)	
HS 592 Workshop in Phys Ed	1-3 Credit hours	Pre-req: HS 525.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
HS 595 Trends in Biomechanics 2	3 Credit hours	HS 646 Athletic Training I	3 Credit hours
The purpose of this course is to expose the student to the research process as it pertains to the field of biomechanics. This course is intended to continue the process started in HS 575.		Training in the diagnosis of injuries in athletics. The student will be expected to participate in diagnosis tech- niques under the supervision of a trainer.	
Pre-req: HS 575.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode			
HS 609 Org & Admin Athletic Training	3 Credit hours		
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.			
Grade Mode: Normal Grading Mode			
HS 610 Adv Biomechanics	3 Credit hours		
An advance investigation into Newtonian mechanics and their application in their uses human movement analysis.			
Pre-req: HS 566.			
Grade Mode: Normal Grading Mode			

HS 647 Athletic Training II**3 Credit hours**

Professional aspects of trainer-doctor and doctor-athlete relations will be taught and exploration of how to professionally handle injuries and cooperate with physicians.

Grade Mode: Normal Grading Mode**HS 650 Human Gait****3 Credit hours**

An investigation into normal and abnormal human gait patterns in activities of daily living.

Pre-req: ESS 564 or HS 564.**Grade Mode:** Normal Grading Mode**HS 655 Ath Trng Clinical Exp IV****3 Credit hours**

Capstone clinical experience supervised by an MD, PT, PA, or ATC at an approved site. Requires 150 clinical hours. (PR: grade of B or higher in HS 645 and 225 clinical hours)

Pre-req: HS 645.**Grade Mode:** Normal Grading Mode**HS 657 Adv Trn/Certs****1-3 Credit hours**

This course allows the student to participate in advanced training and certification courses such as the Functional Movement Screening, Performance Enhancement Specialist, and others that may be offered each year.

Grade Mode: Normal Grading Mode**HS 660 Internship****3-6 Credit hours**

Practical experience in a clinical setting.

Grade Mode: Normal Grading Mode**HS 679 Trends in Athletic Training****3 Credit hours**

To investigate current trends with regard to evidence based practice, current practice position statements, and current research methods being utilized in athletic training.

Grade Mode: Normal Grading Mode**HS 680 Graduate Project in AT****3 Credit hours**

This course involves supervised development of a one-semester scholarly, entrepreneurial or administrative project that synthesizes the student's educational and clinical experiences obtained while matriculating through the PMSAT program.

Pre-req: HS 655.**Co-req:** HS 630, HS 634**Grade Mode:** Normal Grading Mode**HS 681 Thesis****1-6 Credit hours****Grade Mode:** Normal Grading Mode**Nursing****NUR 580 Special Topics****1-4 Credit hours**

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Normal Grading Mode**NUR 581 Special Topics****1-4 Credit hours**

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Normal Grading Mode**NUR 582 Special Topics****1-4 Credit hours**

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Normal Grading Mode**NUR 583 Special Topics****1-4 Credit hours**

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Normal Grading Mode**NUR 584 Special Topics****1-4 Credit hours**

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Normal Grading Mode**NUR 585 Independent Study****1-4 Credit hours**

Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill needs of individual students.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**NUR 586 Independent Study****1-4 Credit hours**

Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill needs of individual students.

Grade Mode: Normal Grading Mode**NUR 587 Independent Study****1-4 Credit hours**

Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill needs of individual students.

Grade Mode: Normal Grading Mode**NUR 588 Independent Study****1-4 Credit hours**

Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill needs of individual students.

Grade Mode: Normal Grading Mode**NUR 602 Theoretical Found in NUR****3 Credit hours**

Provides students with opportunity to relate a philosophical and theoretical base to concepts and processes inherent in nursing. Emphasis is on analysis of nursing theories and their relationship and application to research and practice.

Grade Mode: Normal Grading Mode**NUR 604 Leadership in Nursing****3 Credit hours**

Explores the theoretical basis for effective leadership in nursing. Emphasis is placed on analysis of leadership, characteristics and behaviors of leaders, and the role of the nurse leader.

Grade Mode: Normal Grading Mode**NUR 606 Advanced Nursing Research****3 Credit hours**

Provides the opportunity to develop a research approach to nursing situations. Focus is upon the development of a research proposal. (PR or CR: NUR 602)

Pre-req: NUR 602.**Grade Mode:** Normal Grading Mode**NUR 608 Issues in Health Care****3 Credit hours**

Explores and evaluates concerns germane to contemporary nursing. Focus is upon the role of nursing in addressing health issues affected by social, economical, political and technological forces.

Grade Mode: Normal Grading Mode**NUR 616 Curr Dev in Nursing****3 Credit hours**

Introduces the various components in the curriculum development process. Emphasis is on philosophy, objectives, curriculum designs and program evaluation. Factors influencing curriculum development implementing evaluation and nursing curriculum patterns are examined. (NUR 602)

Grade Mode: Normal Grading Mode

NUR 618 Teaching in Nursing**3 Credit hours**

Investigates the responsibilities of the educator in contemporary nursing. Emphasis is upon the instructional process. Practicum allows student to practice the role of the teacher in a variety of educational experiences. (PR: NUR 616)

Grade Mode: Normal Grading Mode**NUR 619 Practicum: Teach Nursing****6 Credit hours**

Guided experience in didactic teaching of nursing clinical teaching, supervision and evaluation of students. PRE: NUR 618

Pre-req: NUR 618 (may be taken concurrently) and NUR 606.**Concurrent PR:** NUR 618**Grade Mode:** Normal Grading Mode**NUR 620 Adv Pathophysiology I****2 Credit hours**

Advanced knowledge of body systems altered by disease and/or injury. The body systems or diseases studied will include: cell, cardiovascular, pulmonary, digestive, musculoskeletal, neurologic and reproductive across the lifespan.

Grade Mode: Normal Grading Mode**NUR 621 Adv Pathophysiology II****2 Credit hours**

Advanced knowledge of body systems altered by disease and/or injury including: hematologic, genes, immunity, cancer, endocrine, renal, urologic, and integumentary across the lifespan.

Pre-req: NUR 620.**Grade Mode:** Normal Grading Mode**NUR 622 Advanced Physical Assessment****5 Credit hours**

Introduction to knowledge and skills essential for comprehensive health assessments, analysis of data, formulation of diagnoses, development of the therapeutic plans and implementation of health promotion and maintenance activities. Practicum included. (PR or CR: NUR 602)

Grade Mode: Normal Grading Mode**NUR 624 Adv Family Nursing Practice I****5 Credit hours**

Provides advanced knowledge of common and acute self-limiting health problems of individuals and families of various age groups. Includes pathology and therapeutic modalities related to specific health problems. Practicum included. (PR: NUR 622 CR: NUR 606)

Pre-req: NUR 622.**Grade Mode:** Normal Grading Mode**NUR 626 Adv Family Nursing III****5 Credit hours**

Provides advanced knowledge of chronic illness and the long-term management of health care problems. Includes pathology and therapeutic modalities related to management of chronic health problems. Practicum included. (PR: NUR 624)

Pre-req: NUR 624.**Grade Mode:** Normal Grading Mode**NUR 642 Org Dynamics in Nursing****3 Credit hours**

Focus is upon the organizational dynamics as they apply to the nurse manager in health care delivery systems.

Pre-req: NUR 604 (may be taken concurrently).**Concurrent PR:** NUR 604**Grade Mode:** Normal Grading Mode**NUR 644 Financial Stra In Nur Adm****3 Credit hours**

Examines the financial management role of the nurse administrator in relation to economic, political, and societal trends.

Pre-req: NUR 606 (may be taken concurrently).**Concurrent PR:** NUR 606**Grade Mode:** Normal Grading Mode**NUR 646 Nur Manage Health Care I****6 Credit hours**

Focuses on the application of theories and principles related to nursing management. Practicum included. (NUR 642, NUR 644).

Pre-req: NUR 606 and NUR 642 and NUR 644.**Grade Mode:** Normal Grading Mode**NUR 648 Nur Manage Health Care II****6 Credit hours**

Practicum focuses upon the application of the role components of the nurse manager in selected health care settings. (PR: 646).

Pre-req: NUR 646.**Grade Mode:** Normal Grading Mode**NUR 663 Advanced Pharmacology I****2 Credit hours**

Focus on the science of drugs and the application to patient care across the lifespan. Principles of pharmacology covered are: infectious diseases, fluids and electrolytes, peripheral nervous and cardiovascular systems.

Grade Mode: Normal Grading Mode**NUR 664 Advanced Pharmacology II****2 Credit hours**

Focus is on the science of drugs and application to patient care across the lifespan. Drugs affecting the blood, respiratory, gastrointestinal, central nervous, endocrine system, anti-inflammatory, antiallergic and immunologic drugs.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**NUR 681 Thesis****1-6 Credit hours**

Individual research in a selected area of nursing under direction of a faculty member.

Pre-req: NUR 606.**Grade Mode:** Normal Grading Mode**NUR 695 Internship: Adv Family Nur****6 Credit hours**

Focus is upon the role of the family nurse practitioner using the case management approach in a supervised contractual work study arrangement with a health care agency. (450 hrs. minimum) (PR: NUR 626)

Pre-req: NUR 626.**Grade Mode:** Normal Grading Mode**NUR 720 Adv Pharm Nurse Anes I****4 Credit hours**

Study of general principles of pharmacology, pharmacokinetic, pharmacodynamic, and biochemistry concepts, as they relate to specific anesthetic and adjunct drugs. It will also emphasize integration of this information into clinical areas regarding anesthetic uses, dosages, and side effects of these classes of drugs.

Grade Mode: Normal Grading Mode**NUR 721 Adv Pharm Nurse Anesth II****3 Credit hours**

This course is a continuation of Pharmacology I with an emphasis on drugs acting on the Autonomic Nervous System, local anesthetic agents, drugs for pain management, and cardiovascular drugs.

Grade Mode: Normal Grading Mode**NUR 735 Clinical Practice Inquiry****3 Credit hours**

Integration of conceptual, theoretical, and empirical knowledge as a basis for evidence-based practice in nurse anesthesia. Examination of the processes required to develop best practice models through the systematic analysis of research.

Pre-req: NUR 741.**Grade Mode:** Normal Grading Mode

NUR 741 Adv HC Prac/Phys As**6 Credit hours**

The Introduction of Health Care Clinical Practicum provides the student with a beginning knowledge and proficiency in all phases of anesthetic management (pre-anesthesia, induction, maintenance, post-anesthesia)

Grade Mode: Credit/No Credit Grade Only**NUR 741-A Health Care Practicum****5 Credit hours**

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 speciality practice.

Pre-req: NUR 741.**Grade Mode:** Normal Grading Mode**NUR 741-C Health Care Practicum****5 Credit hours**

Continuation of MPNA 741-A

Pre-req: NUR 741-B.**Grade Mode:** Normal Grading Mode**NUR 741A Health Care Clinical Practicum****1 Credit hour**

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.

Pre-req: NUR 741.**Grade Mode:** Credit/No Credit Grade Only**NUR 741B Nurse Anesth Prof Practice****3 Credit hours**

Continuation of NUR 741.

Pre-req: NUR 741.**Grade Mode:** Credit/No Credit Grade Only**NUR 741C Health Care Practicum****6 Credit hours**

Continuation of NUR 741.

Pre-req: NUR 741.**Grade Mode:** Credit/No Credit Grade Only**NUR 744 Regional Anesthesia****1 Credit hour**

Continuation and conclusion of materials started in NUR 741.

Pre-req: NUR 741.**Grade Mode:** Normal Grading Mode**Physical Therapy****PT 700 Gross Anatomy for PT****5 Credit hours**

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.

Grade Mode: Normal Grading Mode**PT 701 Neuroanatomy****4 Credit hours**

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.

Grade Mode: Normal Grading Mode**PT 702 Neuro Evaluation****1 Credit hour**

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.

Grade Mode: Normal Grading Mode**PT 704 Neurorehabilitation****4 Credit hours**

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.

Grade Mode: Normal Grading Mode**PT 710 Intro to Human Movement****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PT 711 Human Movement I****4 Credit hours**

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.

Grade Mode: Normal Grading Mode**PT 712 Human Movement II****4 Credit hours**

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.

Grade Mode: Normal Grading Mode**PT 713 Human Movement III****2 Credit hours**

Assessment of constraints to normal movement, application of standardized tools for assessment of movement dysfunction, examination of statistical data (population specific reliability, validity, sensitivity, specificity, odds ratios) of said tools.

Grade Mode: Normal Grading Mode**PT 720 Advanced Clinical Physiology****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PT 721 Applied Ex Phys****3 Credit hours**

Physiological effects of exercise and training in healthy individuals and individuals with pathological dysfunction.

Grade Mode: Normal Grading Mode**PT 731 Clinical Skills****3 Credit hours**

Theory/practice of essential physical therapy skills, including clinical decision making, interview, postural and functional assessment, safe patient handling techniques of positioning, bed mobility, transfers, and use of assistive devices.

Grade Mode: Normal Grading Mode**PT 732 Therapeutic Interventions****3 Credit hours**

This 3 credit hour course introduces students to teaching and learning principles through the application of physical, thermal, and mechanical modalities and therapeutic interventions. Therapeutic interventions include activities to improve joint and muscles.

Grade Mode: Normal Grading Mode**PT 741 Medical Pathology in PT I****2 Credit hours**

Pathological conditions, and medical and surgical considerations for treatment of genetic, gastrointestinal renal, endocrine and metabolic, immune, hematologic, and infectious disorders in patients treated by physical therapists.

Grade Mode: Normal Grading Mode

PT 742 Medical Pathology in PT II**2 Credit hours**

Pathological conditions, and medical and surgical considerations for treatment of musculoskeletal disorders in patients treated by physical therapists.

Grade Mode: Normal Grading Mode**PT 744 Med Pathology in PT IV****3 Credit hours**

This course reviews the functional neuroanatomy and neuropathology correlated with select neuropathological conditions or injury, focusing on etiology, epidemiology, medical/surgical considerations, neural substrates of cognitive, perceptual, and sensorimotor function in patients treated by physical therapists.

Grade Mode: Normal Grading Mode**PT 746 Medical Tests and Measurements****1 Credit hour**

Basic principles of medical diagnostic tests, such as laboratory tests, medical imaging, sonography and EKG, commonly encountered in physical therapy.

Grade Mode: Normal Grading Mode**PT 747 Pharmacology in Rehab****2 Credit hours**

Examination of the effects of commonly used prescription, over the counter and homeopathic drugs. Focus on method of action, indications, contraindications, side effects and impact on physical therapy patients.

Grade Mode: Normal Grading Mode**PT 750 Foundations of Phys Ther****2 Credit hours**

Introduces students to medical terminology, historical foundations, and contemporary practice of physical therapy, traditional and emerging roles and responsibilities and professional behaviors of the physical therapist and issues of self-awareness and communications.

Grade Mode: Normal Grading Mode**PT 751 Legal & Ethical Issues in PT****2 Credit hours**

Development of cultural competence, analysis and practice of communications skills including documentation, professionalism, group dynamics and leadership to assume roles of practitioner, instructor, supervisor, and leader.

Grade Mode: Normal Grading Mode**PT 752 Professional Practice II****2 Credit hours**

Introduction to legislative process, liability, and legal and ethical issues, including considerations of task delegation and supervision of patients/clients, physical therapist assistants, staff, and students.

Grade Mode: Normal Grading Mode**PT 753 Professional Practice II****2 Credit hours**

Teaching and learning principles, practitioner and clinical instructor roles, clinical education program, facility, faculty, and student responsibilities, clinical and program evaluative instruments, patient advocacy and preparation for community service opportunities.

Grade Mode: Normal Grading Mode**PT 754 Health Care Delivery Systems****1 Credit hour**

Micro and macro principles of healthcare delivery systems, sites, and organizations and pro bono services. Legalities of appropriate documentation for third party payers and federal insurance programs are addressed.

Grade Mode: Normal Grading Mode**PT 755 Service Learning Practicum****1 Credit hour**

Allows participation in service learning programs emphasizing advocacy for the health needs of the region, as well as coordination with community agencies.

Grade Mode: Pass/Fail Grading Mode**PT 756 Administration in PT****3 Credit hours**

Emphasis on administration of clinical practice in multiple settings. Information about licensure, attainment and retention of employment, professional organization membership, residency and fellowship programs, and specialization.

Grade Mode: Normal Grading Mode**PT 758 PM&BC in PT Practice****1 Credit hour**

Introduction to patient motivation and behavioral change in physical therapy practice. Emphasis on practical strategies to promote healthy patient/client change leading to improved human movement and overall health

Grade Mode: Normal Grading Mode**PT 761 EBP I****2 Credit hours**

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.

Grade Mode: Normal Grading Mode**PT 762 EBP II****1 Credit hour**

Principles, concepts, and basic skills required to conduct clinical research in physical therapy. Topics include research design, sampling, bias, sensitivity and specificity, questionnaire design, statistical computing, conceptual review of literature.

Grade Mode: Normal Grading Mode**PT 763 EBP II****2 Credit hours**

Students are guided through the process of a Systematic Literature Review development on a topic selected by the student and their Faculty Research Advisor and learn to apply principles of research to the clinical decision making process and to make recommendations for practice.

Grade Mode: Normal Grading Mode**PT 764 EBP III****1 Credit hour**

Continuation of Evidence Based Practice III where students receive continued guidance in the completion of the faculty led capstone project begun in EBP III. Presentation of capstone required before graduation.

Grade Mode: Normal Grading Mode**PT 765 EBP IV****1 Credit hour**

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.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**PT 766 EBP V****1 Credit hour**

Continuation of Evidence Based Practice V where students receive continued guidance in the completion of the faculty led capstone project begun in EBP III. Presentation of capstone required before graduation.

Grade Mode: Normal Grading Mode**PT 767 EBP VI****1 Credit hour**

Continuation of Evidence Based Practice VI where students receive continued guidance in the completion of the faculty led capstone project begun in EBP III culminating with presentation of completed capstone.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode

PT 771 Clin Application Seminar I**1 Credit hour**

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.

Grade Mode: Pass/Fail Grading Mode

PT 772 Clin Application Seminar II**1 Credit hour**

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.

Attributes: No Textbook Required

Grade Mode: Pass/Fail Grading Mode

PT 773 Clin Application Seminar III**1 Credit hour**

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 musculoskeletal dysfunction of the extremities.

Grade Mode: Pass/Fail Grading Mode

PT 774 Clin Application Seminar IV**1 Credit hour**

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.

Grade Mode: Pass/Fail Grading Mode

PT 775 Clin Application Seminar V**1 Credit hour**

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 cardiopulmonary and complex neuromuscular dysfunction.

Grade Mode: Pass/Fail Grading Mode

PT 776 Clin Application Seminar VI**1 Credit hour**

Continued application of information and clinical skills learned in concurrent and prior DPT coursework in a small group discussion and pseudo-clinical setting. Interdisciplinary management of patients with complex concerns.

Grade Mode: Pass/Fail Grading Mode

PT 777 Clin Application Seminar VII**1 Credit hour**

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 health promotion and chronic disease prevention.

Grade Mode: Pass/Fail Grading Mode

PT 781 Musculoskeletal I**3 Credit hours**

The basic principles of orthopedic medicine including an overview of etiology, diagnosis, and surgical management will be covered. Physical Therapy examination, evaluation, diagnosis, and treatment of extremities and spine will be emphasized.

Grade Mode: Normal Grading Mode

PT 782 Musculoskeletal II**4 Credit hours**

Advanced concepts of musculoskeletal examination, evaluation, diagnosis and treatment of the extremities and spine will be covered. An evidence-informed/clinical reasoning-based manual therapy approach will be used including mobilization and manipulation.

Grade Mode: Normal Grading Mode

PT 783 Cardiopulmonary in PT**4 Credit hours**

An overview of cardiovascular and pulmonary systems pathologies, medical diagnosis and management and physical therapy diagnosis, examination, assessment and management of related physiological and movement dysfunctions.

Grade Mode: Normal Grading Mode

PT 784 Integumentary**3 Credit hours**

Review of structure, function, and applied pathophysiology of the integumentary system. Translate knowledge towards PT examination and management of common integumentary impairments with focus on prevention, restoration, and optimizing independence.

Grade Mode: Normal Grading Mode

PT 785 Health Promo and Nutrition**2 Credit hours**

Development and maintenance of healthy lifestyles for patients and clients. Focus on disease prevention, nutritional needs, and the benefits of exercise as well as managing individuals with injury or disease.

Grade Mode: Normal Grading Mode

PT 786 Rehab in Select Pops I**3 Credit hours**

Principles of evaluation and treatment in the areas of pediatrics and geriatrics. Emphasis placed on biopsychosocial aspects of developmental disabilities, coordination of care and complexities of multi-system and multi-organ disease.

Grade Mode: Normal Grading Mode

PT 787 Rehab in Select Pops II**2 Credit hours**

Principles of evaluation and management of patients with amputation and/or neuromuscular disorders to maximize functional independence. Focus on prosthetic and orthotic prescription, components, fabrication, fit, and use during functional activities.

Grade Mode: Normal Grading Mode

PT 788 Rehab in Select Pops III**1 Credit hour**

Principles of physical therapy management of select patient populations including bariatrics, women's health, oncology, and selected progressive and chronic diseases.

Grade Mode: Normal Grading Mode

PT 789 MSK III**1 Credit hour**

Advanced diagnosis and management approaches for complex orthopedic and sports PT populations will be covered. Differential diagnosis of upper and lower quarter pathology, along with specialized treatments unique to this population will be emphasized.

Grade Mode: Normal Grading Mode

PT 791 Clinical Internship I**4 Credit hours**

Supervised clinical education experience emphasizing continued development and reinforcement of clinical skills in clinical settings. Competence is expected in areas of the material presented to date in the curriculum.

Grade Mode: Pass/Fail Grading Mode

PT 792 Clinical Internship II**6 Credit hours**

Supervised clinical education experience emphasizing continued development and reinforcement of clinical skills in various clinical settings. Competence is expected in areas of the material presented to date in the curriculum.

Grade Mode: Pass/Fail Grading Mode

PT 793 Clinical Internship III 8 Credit hours

Supervised clinical education experience emphasizing continued development and reinforcement of clinical skills in various clinical settings. Competence is expected in areas of the material presented to date in the curriculum.

Attributes: No Textbook Required

Grade Mode: Pass/Fail Grading Mode

PT 798 Independent Study 1-4 Credit hours

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 Chair of School of Physical Therapy)

Grade Mode: Normal Grading Mode

PT 799 Integration & Review 1 Credit hour

Integration and review of clinical physical therapy principles and concepts in preparation for the National Physical Therapy Board Examination.

Grade Mode: Credit/No Credit Grade Only

Public Health

PH 601 Intro Public Health 1 Credit hour

An introduction to public health, including its foundation and history, principles and characteristics of the discipline, professional roles, and individual career development and planning.

Grade Mode: Normal Grading Mode

PH 602 Public Health Biology 2 Credit hours

Reviews biological bases of public health issues, including principles of disease development, including genetics, oncogenesis, and immunology. May be waived for those holding appropriate degrees in biological or clinical sciences.

Grade Mode: Normal Grading Mode

PH 603 Intro to Rural Health 3 Credit hours

Introduction to the particular issues of rural health, both domestically in the U.S. and internationally.

Grade Mode: Normal Grading Mode

PH 610 Intro to PH 2 Credit hours

This course introduces students to the field of public health, how it works, and provides students with an opportunity to become familiar with essential concepts and resources in public health.

Grade Mode: Normal Grading Mode

PH 611 Epidemiology 3 Credit hours

An introduction to basic concepts of including risk, study design, and analysis. Students apply these techniques to examine outbreaks, and evaluate preventives, diagnostics and treatments.

Grade Mode: Normal Grading Mode

PH 615 Health Sys Research 3 Credit hours

An introduction to research in public health. Students examine prerequisites to successful study, as well as issues including funding, protocol design, data management, analysis, collaboration, and publication.

Co-req: PH 611, PH 621

Grade Mode: Normal Grading Mode

PH 616 Clinical Trials 3 Credit hours

An examination of methods and issues in conducting clinical research. Includes critical aspects of study design, protocol development, recruitment and consent, and assessment of outcomes.

Pre-req: PH 611 and PH 621.

Grade Mode: Normal Grading Mode

PH 617 Meth Comp Study 3 Credit hours

Examination of methods to determine the relative value of preventive, diagnostic and treatment alternatives for efficacy, cost, and practical application. Models include meta-analysis, comparative effectiveness trials, and data mining.

Pre-req: PH 611 and PH 621.

Grade Mode: Normal Grading Mode

PH 620 PH Issues 2 Credit hours

Provide practical situations and contemporary issues in public health where students apply knowledge and theoretical concepts from coursework, strengthen existing skills/analytic thinking, and apply public health core competencies.

Grade Mode: Normal Grading Mode

PH 621 Statistical Methods I 3 Credit hours

Introduction to statistical principles and methods. Includes descriptive and inferential statistics. Students will gain experience in the use of SPSS software, and in the interpretation and communication of statistical tests.

Grade Mode: Normal Grading Mode

PH 622 Statistical Methods II 2 Credit hours

Examination of procedures including multiple linear and logistic regression, survival analysis, advanced non-parametric tests, repeated measures. Students gain experience in the use of SAS software for data management and analysis.

Pre-req: PH 621.

Grade Mode: Normal Grading Mode

PH 631 Environmental Health 2 Credit hours

Introduction to environmental health principles, practices and policy. Students gain knowledge of the study, assessment, prevention and mitigation of exposures adversely affecting health.

Pre-req: PH 621.

Grade Mode: Normal Grading Mode

PH 641 Social Behavioral Aspects PH 2 Credit hours

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 changes in health status.

Grade Mode: Normal Grading Mode

PH 642 Health Communications 2 Credit hours

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.

Grade Mode: Normal Grading Mode

PH 650 MPH Practicum 6 Credit hours

To provide students with opportunity to apply concepts and knowledge from the MPH curriculum and demonstrate competency in the public health practice setting.

Grade Mode: Credit/No Credit Grade Only

PH 651 Public Health Services 2 Credit hours

An introduction to public health management, planning, implementation and evaluation. Students gain an integrated understanding of public health resources and their effective utilization to improve health.

Grade Mode: Normal Grading Mode

PH 653 Rural Health Addiction**2 Credit hours**

Introduction to the public health issues of, and interventions for, alcohol, tobacco, and drug addiction in the Appalachian region, with a special emphasis on opioid addiction and drug overdose.

Grade Mode: Normal Grading Mode**PH 655 Intro Health Policy****2 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 656 Topics in Health Policy****3 Credit hours**

A study of current issues of health policy, including major issues of health reform. Students apply their skills to formulate, package, and present their own health policy proposal.

Grade Mode: Normal Grading Mode**PH 657 Public Health Prog Eval****3 Credit hours**

This course deals with the application of research methods to evaluate public health programs and health services.

Pre-req: PH 621 with a minimum grade of D.**Grade Mode:** Normal Grading Mode**PH 660 Environmental PH****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 661 Chronic Disease****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 662 Control of Inf Disease****3 Credit hours**

Examination of infectious diseases from a public health perspective, including strategies for prevention, treatment, control and eradication.

Pre-req: PH 611.**Grade Mode:** Normal Grading Mode**PH 663 Health Behavior****3 Credit hours**

This course introduces students to the models of health behavior as it applies to public health.

Grade Mode: Normal Grading Mode**PH 671 Community Health****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 672 Global Health****3 Credit hours**

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.

Pre-req: PH 611.**Grade Mode:** Normal Grading Mode**PH 678 Principles Epi in PH****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 686 Health Information Technology****3 Credit hours**

An introduction to health information technology applications and issues, as well as the growing impact of advances in biotechnology on public health.

Grade Mode: Normal Grading Mode**PH 689 Community Outreach Health****3 Credit hours**

Applied and experiential course in designing and implementing a community health outreach project for the improvement of health in rural Appalachia.

Grade Mode: Normal Grading Mode**PH 691 Health Promo & Disease Prevent****3 Credit hours**

This graduate course provides students with a broad knowledge base of health promotion and disease prevention in public health.

Grade Mode: Normal Grading Mode**PH 692 Seminar****1 Credit hour**

Introduction to health science literature review and critique, as well as presentation of research and practicum reports.

Grade Mode: Normal Grading Mode**PH 693 Law and Ethics****3 Credit hours**

Introduction to the legal and ethical foundations of public health practice, including study of how individuals, practitioners, organizations and government address key issues.

Grade Mode: Normal Grading Mode**PH 694 Practicum****3 Credit hours**

Applied public health experience conducted under guidance of a faculty advisor and site preceptor, including a specific set of proposed project and learning objectives, and utilizing a community partner.

Pre-req: PH 611 and PH 621 and PH 641 and PH 686 and PH 693.**Attributes:** No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**PH 695 Research****3 Credit hours**

Student research project, under guidance of the faculty advisor. Student project may include work towards thesis.

Pre-req: PH 611 and PH 621.**Grade Mode:** Credit/No Credit Grade Only**PH 696 Capstone****3 Credit hours**

Course provides a structured and mentored process for students to produce written and oral components of a capstone project on a selected topic or question. (PR: Prior or current PH 694 or PH 695)

Pre-req: PH 694 (may be taken concurrently) or PH 695 (may be taken concurrently).**Concurrent PR:** PH 694 or PH 695**Grade Mode:** Normal Grading Mode**Social Work****SWK 501 Foundations of Gen Practice I****3 Credit hours**

This is the first in a sequence of two courses designed to develop the practice knowledge and skills necessary for MSW students to begin professional social work practice. The purpose of this course is to provide an overview of generalist practice.

Grade Mode: Normal Grading Mode

SWK 511 Foundations of HBSE**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**SWK 521 Foundations of Social Policy****3 Credit hours**

The initial focus of this course is to provide students with an historical background of social welfare and social work. Students will learn how to analyze social policies focused on the social welfare institution.

Grade Mode: Normal Grading Mode**SWK 531 Foundations of Gen Practice II****3 Credit hours**

This is the second of two courses in MSW social work practice focused on preparing the student for entry into professional social work. Particular emphasis placed on the micro level of practice, working with individuals and families.

Grade Mode: Normal Grading Mode**SWK 541 Foundations of Research****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**SWK 551 Foundations of Field Practicum****1-9 Credit hours**

This course is part of the field practicum experience where students are supervised in a social welfare agency for 400 clock hours. Building on foundation practice skills, students will apply knowledge, values, and skills to the generalist practice experience under the supervision of a licensed social worker.

Pre-req: SWK 501 and SWK 511.**Grade Mode:** Credit/No Credit Grade Only**SWK 580 Special Topics****1-4 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**SWK 581 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**SWK 582 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**SWK 583 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**SWK 585 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**SWK 586 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**SWK 587 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**SWK 613 Adv Human Behavior Social Env****3 Credit hours**

Social Work 613 is 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.

Grade Mode: Normal Grading Mode**SWK 615 Psychopathology****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**SWK 622 Int Health Policy & Services****3 Credit hours**

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 students to synthesize and apply this learning to the practice of policy in the behavioral health service arena.

Grade Mode: Normal Grading Mode**SWK 623 Mil MH & Impact of Trauma****3 Credit hours**

The course explores the effects of deployment and combat stress on the physical and mental health of active duty U.S. service members and their families.

Grade Mode: Normal Grading Mode**SWK 630 Int MH, Substance Use & Trauma****3 Credit hours**

this course identifies and explains ways to which clients with a diagnosis of trauma and co-occurring mental health and substance use can be treated simultaneously.

Grade Mode: Normal Grading Mode**SWK 631 Int Health Models & Pract****3 Credit hours**

This course prepares social workers to work collaboratively with cross disciplinary teams of providers. Social workers will be prepared to work in a variety of roles and functions, and possess the necessary skills to engage with highly diverse populations.

Grade Mode: Normal Grading Mode**SWK 633 Adv Clin SW Prac Ind Fam****3 Credit hours**

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 healthcare settings.

Grade Mode: Normal Grading Mode**SWK 634 Adv SW Prac Gps Com & Org****3 Credit hours**

This course provides the knowledge and skills needed to understand community, group, and organizational behaviors and the planned change process. Particular focus will be on rural and underserved populations.

Grade Mode: Normal Grading Mode**SWK 642 Adv Social Research I****3 Credit hours**

This course introduces students to the philosophical and methodological issues of qualitative research. The course focuses on practicing various methods with the goal of producing a small qualitative study.

Grade Mode: Normal Grading Mode**SWK 643 Adv SW Research II****3 Credit hours**

Program and intervention development and evaluation research in health settings; issues and skill development in program design and methods for evaluation.

Grade Mode: Normal Grading Mode**SWK 650 Und Military Culture****3 Credit hours**

The purpose of this course is to train students to understand the military culture within which military families function. The course looks at stressors such as deployment, diversity of military family structures and a range of diversity filters which impact the military family and military culture.

Grade Mode: Normal Grading Mode

SWK 653 Adv Field Practicum**1-9 Credit hours**

This course provides concentration year students with an agency-based field instruction and classroom seminar for advanced learning and practice opportunities. The practicum takes place during the second semester of the concentration year.

Grade Mode: Credit/No Credit Grade Only**SWK 655 Comorb Ment & Phy Disorders****3 Credit hours**

The course focuses on behavioral health issues as related to prevention, assessment, treatment, and evaluation, and the effective implementation with all individuals to include military and military affiliated individuals, including veterans and their families.

Co-req: SWK 634**Grade Mode:** Normal Grading Mode**SWK 670 Adv Theory & Pract Child****3 Credit hours**

The course builds a framework for social work interventions using normative developmental supports and mental health case planning. Students will develop advanced clinical social work practice knowledge and skills for working with children and adolescents with mental health risks.

Grade Mode: Normal Grading Mode**SWK 673 Family & Community Violence****3 Credit hours**

This course provides content covering various types of violence through the lifespan. Specifically, child abuse, school violence, juvenile violence, family violence, workplace violence, and elder abuse will be analyzed and discussed. The course will consider the risk factors, current policies, practices and interventions with vulnerable populations.

Grade Mode: Normal Grading Mode**SWK 681 Suicidology****3 Credit hours**

The course explores concepts of suicide as a public health issue. The course provides students with an understanding of suicide language and evidenced based clinical practice techniques.

Grade Mode: Normal Grading Mode**SWK 682 Human Trafficking****3 Credit hours**

Human Trafficking is grounded in fundamental concepts related to trafficking of human beings. Multiple forms of human exploitation as well as implications for social policy and interventions are discussed.

Grade Mode: Normal Grading Mode

Sport Tourism and Hospitality Management

STHM 505 Sport Psychology**3 Credit hours**

An examination of theory, research, and application of psychological principles related to sport and exercise.

Grade Mode: Normal Grading Mode**STHM 511 Ethics in Sports****3 Credit hours**

A philosophical examination of both the fundamental ethical principles, as well as, the most common ethical dilemmas and controversies found in sports.

Grade Mode: Normal Grading Mode**STHM 516 Facility Design & Management****3 Credit hours**

This course covers quantity, location, and design standards for facilities. Includes safety, functionality, durability, and maintenance requirements in planning and design.

Grade Mode: Normal Grading Mode**STHM 525 Sport in Film****3 Credit hours**

The relationship between sports and feature motion pictures are analyzed in the historical, social and cultural contexts.

Grade Mode: Normal Grading Mode**STHM 530 Sport Law****3 Credit hours**

The study of the basic principles of the legal system as they operate in the environment of American sport.

Grade Mode: Normal Grading Mode**STHM 540 Women in Sport****3 Credit hours**

The history of women in sport, gender equity, opportunities for women in intercollegiate and professional sports (such as participant, coach, trainer, journalist, agent and promoter), and physiological perspectives.

Grade Mode: Normal Grading Mode**STHM 552 Sports Analytics****3 Credit hours**

By using various tools such as sport analytics, key performance indicators (KPI), balanced scorecard, and other techniques, this course focuses on exploring, identifying and solving problems using data.

Grade Mode: Normal Grading Mode**STHM 575 Sem Sport MGT MKT****3 Credit hours**

This course is designed to provide students with an overview of all aspects involved in the Sports Management and Marketing field through classroom lectures, guest speakers, and field trips.

Grade Mode: Normal Grading Mode**STHM 580 Special Topics****1-4 Credit hours**

Special topics are experimental courses that offered by the Sport, Tourism and Hospitality Management department.

Grade Mode: Normal Grading Mode**STHM 581 Special Topics****1-4 Credit hours**

Special topics are experimental courses that offered by the Sport, Tourism and Hospitality Management department.

Grade Mode: Normal Grading Mode**STHM 582 Special Topics****1-4 Credit hours**

Special topics are experimental courses that offered by the Sport, Tourism and Hospitality Management department.

Grade Mode: Normal Grading Mode**STHM 583 Special Topics****1-4 Credit hours**

Special topics are experimental courses that offered by the Sport, Tourism and Hospitality Management department.

Grade Mode: Normal Grading Mode**STHM 596 Olympic Games****3 Credit hours**

Exploring the important role of the Olympic Movement in politics since the modern Olympic Movement in 1896.

Grade Mode: Normal Grading Mode**STHM 615 Legal Concerns in STHM****3 Credit hours**

This course is designed to prepare students with the knowledge and the ability to apply the legal doctrines that will enhance their ability to problem-solve effectively and make prudent management and operational decisions.

Grade Mode: Normal Grading Mode**STHM 624 Current Issues in STHM****3 Credit hours**

An in-depth look at current issues affecting all areas of the Sport, Tourism and Hospitality Management field.

Grade Mode: Normal Grading Mode

STHM 643 Sport in Social Process**3 Credit hours**

An in depth analysis of the processes by which sport evolved as a significant component of modern American life.

Grade Mode: Normal Grading Mode

STHM 652 Organ Behav Sprt Leis Indus**3 Credit hours**

Examine the complexity of human behavior in organizational settings in sport and leisure industry, and the role of managers and leaders in affecting that behavior.

Grade Mode: Normal Grading Mode

STHM 660 Internship**3-6 Credit hours**

The placement of an individual into a Sport, Tourism and Hospitality agency to observe and participate in its operation.

Grade Mode: Normal Grading Mode

STHM 671 Research in Sports Studies**3 Credit hours**

This course provides student with a fundamental understanding of research principles, concepts, methods, techniques, and application related to sports studies.

Grade Mode: Normal Grading Mode

STHM 674 Sport Finance Economics**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

STHM 675 MKT MGT of Sport Industry**3 Credit hours**

Advanced level of marketing concepts in sports industry.

Pre-req: ESS 670 with a minimum grade of D or STHM 671 with a minimum grade of D.

Grade Mode: Normal Grading Mode

STHM 681 Thesis**1-6 Credit hours**

Research opportunities in the STHM field are broad. Students can choose to work with one of the faculty members on a research direction which the faculty and student choose.

Grade Mode: Normal Grading Mode

STHM 685 Independent Study**1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode

STHM 686 Independent Study**1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode

STHM 687 Independent Study**1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode

STHM 688 Independent Study**1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode

STHM 696 Seminar in STHM**3 Credit hours**

Course is designed to provide students with an overview to all aspects involved in the Sport, Tourism and Hospitality field through classroom lectures, guest speakers, and field trips.

Grade Mode: Normal Grading Mode

Athletic Training (Professional), M.S. Kinesiology

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.

Professional Master of Science - Athletic Training (PMAT)

The Marshall University Professional Master of Science in Athletic Training (PMAT) Program is fully accredited by the CAATE (Commission on Accreditation of Athletic Training Education; www.caate.net (<http://www.caate.net>)). It is a rigorous multifaceted health professions program that 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 number of available openings for new students in this program is based on available instructional and clinical resources both on campus and at affiliated clinical sites. Because of the competitive nature of this program, applicants are encouraged to establish and maintain a high degree of academic excellence and professionalism as they pursue acceptance into this program. The rigorous curriculum prepares students to take the national BOC board exam (Board of Certification Exam; www.boccatc.org (<http://www.boccatc.org>)) to practice as professional-level professionals. This program is **not** a Post-Professional 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 offer 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; industrial settings, and higher education.

The PMAT 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 Professional Master of Science in Athletic Training program. Both routes prepare students to take the national BOC board exam. Acceptance into the PMAT program is competitive and separate from acceptance to Marshall University.

Admission Requirements

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.

Admission Criteria

Acceptance into the Professional 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:

- Admission to Marshall University;
- An overall cumulative minimum GPA of 3.0;
- A letter grade of C or better on all prerequisite coursework;
- Submit by February 15 all forms and supporting documentation to apply to the PMAT (*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 will be extended in March);
- Ability to meet the Technical Standards of Admission documented by a licensed physician.

Application to the Marshall University PMAT program is completed through a centralized application system known as ATCAS. Applicants will apply online using the ATCAS system. To learn more about the ATCAS application process visit <https://atcas.liaisoncas.com/>. Application to the PMAT is on a rolling admission basis; however, to receive priority consideration all application materials must be received by February 15 for the Summer 3 session, which is when the program begins. All applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at <http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission> (<http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>).

Prerequisites - Provisional Admission Criteria

Prospective students must have taken or be currently enrolled in the following courses when applying to the PMSAT program. All students applying in their 3rd year from Marshall University must have all Core I and Core II courses completed by the end of the application semester, a minimum of 90 credit hours (*Note:* applicants with exceptional academic performance may also be considered if they should fall a few credit hours short of this 90-hour threshold; however, these students must have completed all the requirements for the bachelor's degree by the end of the first year in the PMSAT program), and the

following prerequisite courses must be completed prior to the start of the PMSAT program:

- Anatomy and physiology (6-8 cr.)
- Biology (2-4 hrs.)
- Chemistry (2-4 hrs.)
- Physics (2-4 hrs.)
- 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 (3 cr.)
- Kinesiology or biomechanics (3-4 cr.)
- Nutrition (3 cr.)
- Personal Health/Wellness (2-3 cr.)
- Statistical methods (3 cr.)
- Medical terminology (2-3 cr.)
- Sociology or comparable course (3 hrs.)

Plan of Study

Code	Title	Credit Hours
Athletic Training Core		
HS 512	Found Clinical Skills in AT	3
HS 515	Ath Trng Clinical Exp I	3
HS 523	Ortho Assess Upper Extremity	4
HS 524	Ortho Assess Lower Extremity	4
HS 525	Ath Trng Clinical Exp II	3
HS 548	Therapeutic Interventions I	4
HS 549	Therapeutic Interventions II	4
HS 609	Org & Admin Athletic Training	3
HS 630	Seminar Athl Training	3
HS 634	Ath Trng Externship	3
HS 639	Exam of Gen Med Conditions	3
HS 645	Ath Trng Clinical Exp III	3
HS 655	Ath Trng Clinical Exp IV	3
HS 679	Trends in Athletic Training	3
HS 680	Graduate Project in AT	3
ESS 670	Research Meth in Kinesiology	3
ESS 636	Structural Kinesiology	3
HS 657	Adv Trn/Certs	1-3
Total Credit Hours		56-58

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

Biomechanics, M.S. Kinesiology

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.

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

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.

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):

For Full Admission

- an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale for all previously completed undergraduate university work;
- an appropriate undergraduate/graduate background that includes anatomy, physiology, kinesiology, physics, algebra/trigonometry;
- Graduate Record Exam scores (no older than five (5) years) with at least a 295 combined score on verbal and quantitative reasoning on the GRE and an analytical writing GRE score of at least 3.0;
- a personal statement describing the applicant's interest in the program at Marshall and how the experience will benefit them professionally and personally;
- three (3) letters of recommendation from individuals familiar with the applicant's relevant academic/professional performance as it relates to the successful completion of the program. To continue

in the M.S. in Biomechanics program, students are required to maintain a 3.0 GPA in all coursework.

For Provisional Admission

(a limited number of students may be admitted as provisional candidates)

- 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 that includes anatomy, physiology, kinesiology, physics, algebra/trigonometry;
- Graduate Record Exam scores (no older than five (5) years) with at least a 285 combined score on verbal and quantitative reasoning on the GRE and an analytical writing GRE score of at least 3.0;
- a personal statement describing the applicant's interest in the program at Marshall and how the experience will benefit them professionally and personally;
- three (3) letters of recommendation from individuals familiar with the applicant's relevant academic/professional performance as it relates to the successful completion of the program.

Acceptance into the M.S. Biomechanics program is competitive and not guaranteed. 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.

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.

Plan of Study

The Master of Science program consists of the following coursework:

Code	Title	Credit Hours
Required Courses		
EDF 676	Statistical Methods	3
ESS 670	Research Meth in Kinesiology	3
HS 535	Biomech Instrument MatLab	3
HS 610	Adv Biomechanics	3
HS 615	Kinematic Analysis App Biomech	3

HS 635	Kinetics in Biomech	3
HS 650	Human Gait	3
HS 681	Thesis	3
or HS 660	Internship	

Electives

These are only suggested courses. Some courses may require permission from the instructor prior to enrollment. All prerequisites must be met.

Select 9 credit hours of the following:	9
HS 578	Biomech Research Pract
HS 595	Trends in Biomechanics 2
ESS 578	Exercise Metabolism
ESS 601	Adv Exercise Testing
ESS 621	Adv Exercise Physiology I
ESS 636	Structural Kinesiology
ESS 642	Devise Train & Cond Prog
ESS 651	Mech Analysis Motor Skill
ESS 670	Research Meth in Kinesiology
HP 605	The Role of EHR and PHR
ESS 644	Cardio Exer Physiol
ESS 645	Respir Exer Physiol
ACB 620	Gross Anatomy/Embryology
BMR 628	Neuroscience I
BMR 629	Neuroscience II
DTS 670	Adv Med Nutrition Therapy I
EDF 616	Adv Studies Human Develop
EDF 617	Multiple Regression
MPNA 724	Evidence Based Rscrch Mthds I
MPNA 725	Evidence Based Rsrch Mthds II
MPNA 726	Statistical Methods for Resear
SFT 610	Intro to Prof Safety & Health
SFT 630	Current Lit & Res in Safety
SFT 645	Saf Engineering Equip Design
SFT 660	Appl Ergon and Hum Factors Eng
STA 518	Biostatistics

Total Credit Hours 33

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 (<http://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 (<http://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 requirements include 24 hours of clinical courses. Students who are assigned clinical practicum are expected to fulfill the responsibilities of these assignments for the full semester. Students who fail to do so may not be assured of future assignments.

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, Internship Certificate

A post-baccalaureate certificate program to qualify to take the registration exam to become a Registered Dietitian Nutritionist (RON) 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 2190, Chicago, IL 60606-6995, telephone 312-899-4876.

Detailed internship information is available at <https://www.marshall.edu/dietetics/>.

Plan of Study

Students enrolled in the program are required to complete 21 credit hours with a minimum GPA of 3.0. Required courses to obtain 21 graduate credit hours are:

Code	Title	Credit Hours
DTS 670	Adv Med Nutrition Therapy I	3
DTS 673	Administrative Dietetics	3
DTS 675	Dietetic Internship I	3
DTS 676	Dietetic Internship II	3
DTS 677	Dietetic Internship III	3
DTS 679	Adv Med Nutrition Therapy II	3
DTS 690	Sem DTS Research Comm	3
Total Credit Hours		21

Dietetics, M.S.

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, described in detail at www.marshall.edu/dietetics (<http://www.marshall.edu/dietetics/>).

Application to Marshall University's Dietetic Internship is completed through a centralized application system known as DICAS. Applicants will apply online using the DICAS application. To learn more about the DICAS application process visit <https://portal.dicas.org/>. If a student is admitted to the Dietetic Internship, he or she will receive further instructions for the Dietetic Internship Director regarding formal application to the graduate program.

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 or a Verification Statement from an accredited DPD program. Admission of Registered Dietitians will be handled on a case-by-case basis by the department.

Those holding Verification Statements can be conditionally admitted for one semester. Full admission will be contingent on acceptance to the Dietetic Internship program and all requirements for full admission being met. Both types of potential students 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 and oral 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.

Exercise Science, M.S. Kinesiology

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.

Program Description

The M.S. in Exercise Science prepares students for allied health careers in the clinical, commercial, corporate, community, university, and health care 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. Popular career settings include cardiopulmonary rehabilitation, diabetes and obesity management programs, sport performance and wellness centers. Other health related fields include athletic training, pharmaceutical and medical sales as well as health coaching and health promotion. This program also prepares students to enter schools for physician assistants, physicians, physical therapy and occupational therapy. Graduates from

the M.S. in Exercise Science are also prepared to pursue studies for an 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 36-hour requirement.

Admission Requirements

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.

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 that includes anatomy, physiology, and exercise physiology;
- Graduate Record Exam scores (no older than five (5) years) with at least a 285 combined score on verbal and quantitative reasoning on the GRE and an analytical writing GRE score of at least 3.0;
- three letters of reference.

Acceptance into the M.S. Exercise Science program is competitive and not guaranteed.

To continue in the M.S. in Exercise Science program, students are required to maintain a 3.0 GPA in all coursework.

Plan of Study

Code	Title	Credit Hours
Core		
ESS 578	Exercise Metabolism	3
ESS 601	Adv Exercise Testing	3
ESS 642	Devise Train & Cond Prog	3
ESS 670	Research Meth in Kinesiology	3
BSC 517	Biostatistics	3
Area of Emphasis		
Select one of the following:		21
Athletic Training (p. 199)		
Cardiometabolic Rehabilitation (p. 199)		
Exercise Physiology and Human Performance (p. 199)		
Total Credit Hours		36

Areas of Emphasis

Athletic Training

Code	Title	Credit Hours
HS 625	Evidence Base Prac Ther Elec Agt	3
HS 630	Seminar Athl Training	3
HS 646	Athletic Training I	3
HS 647	Athletic Training II	3
Advisor-approved elective		3
Select one of the following:		6
ESS 681	Thesis	
Advisor-approved electives and comprehensive examinations		
Total Credit Hours		21

Cardiometabolic Rehabilitation

Code	Title	Credit Hours
Required Courses		
ESS 621	Adv Exercise Physiology I (Cardiorespirator and Metabolic Adaptation)	3
ESS 623	Adv Ex Phys II (Neuromuscular and Environmental Adaptation)	3
ESS 660	Internship	6
ESS 682	Prev & Rehab Physiology (Clinical Perspectives)	3
Electives		
Select 6 hours from the following or other approved courses:		6
ESS 644	Cardio Exer Physiol	
ESS 645	Respir Exer Physiol	
ESS 683	Cardiovascular Assessment	
Total Credit Hours		21

Exercise Physiology and Human Performance

The Exercise Physiology and Human Performance track prepares a student to work in performance enhancement, fitness, and weight loss industries as an exercise professional who specializes in applying the integrated sciences of biochemistry, biomechanics, and physiology to the athletic and adult fitness populations.

Code	Title	Credit Hours
ESS 621	Adv Exercise Physiology I (Cardiorespiratory and Metabolic Adaptation)	3
ESS 623	Adv Ex Phys II (Neuromuscular and Environmental Adaptation)	3
ESS 683	Cardiovascular Assessment	3
HS 566	Biomechanical Analysis	3
or HS 610	Adv Biomechanics	
ESS 660	Internship	6
or ESS 681	Thesis	
Advisor-approved elective		3
Total Credit Hours		21

Family Nurse Practitioner Program, Post Master's Certificate

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.

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/>).

Students must also submit a separate application to the MSN program at www.marshall.edu/cohp (<http://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.

Plan of Study

Code	Title	Credit Hours
NUR 620	Adv Pathophysiology I	2
NUR 621	Adv Pathophysiology II	2
NUR 622	Advanced Physical Assessment	5
NUR 624	Adv Family Nursing Practice I	5
NUR 626	Adv Family Nursing III	5
NUR 663	Advanced Pharmacology I	2
NUR 664	Advanced Pharmacology II	2
NUR 695	Internship: Adv Family Nur	6
Total Credit Hours		29

Additional courses may be taken after consultation with the graduate faculty advisor for family nurse practitioners.

Nursing Administration Program, Post Master's Certificate

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.

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/>).

Students must also submit a separate application to the MSN program at www.marshall.edu/cohp (<http://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.

Plan of Study

Code	Title	Credit Hours
NUR 642	Org Dynamics in Nursing	3
NUR 644	Financial Stra In Nur Adm	3
NUR 646	Nur Manage Health Care I	6
NUR 648	Nur Manage Health Care II	6
Total Credit Hours		18

Additional courses may be taken after consultation with the graduate faculty advisor for nursing administration.

Nursing Education Program, Post Master's Certificate

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.

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/>).

Students must also submit a separate application to the MSN program at www.marshall.edu/cohp (<http://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.

Plan of Study

Code	Title	Credit Hours
NUR 616	Curr Dev in Nursing	3
NUR 618	Teaching in Nursing	3
NUR 619	Practicum: Teach Nursing	6
EDF 636	Advanced Classroom Assessment	3
CIEC 600	Instructional Design & Tech	3
EDF 619	Educational Psychology	3
Total Credit Hours		21

Additional courses may be taken after consultation with the graduate faculty advisor for nursing education.

Nursing, M.S.N. 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 collaboration with Shenandoah University, the program offers students the opportunity to become nurse midwives (NM) or psychiatric mental health nurse practitioners (PMHNP).

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 52 credits for psychiatric mental health nurse (MSN-PMHNP) practitioners.

The two collaborative programs with Shenandoah University, Nurse Midwifery and Psychiatric Mental Health Nurse Practitioner, are under revision and are subject to change this year.

Certifications

Upon successful completion of the MSN-FNP program, graduates are eligible to take the American Academy of Nurse Practitioners Certification Board (AANPCB) 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 (CNE). 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 35 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 (35 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 M.S.N. 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 (<http://www.acenursing.org>).

Admission Requirements

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

Students must also submit a separate application to the MSN program at <https://www.marshall.edu/nursing/files/MSN-Application-and-Validation-of-RN-Licensure-.pdf>.

Deadline

Completed application by September 15 and March 15 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. Post-master's applicants should have a Master of Science in Nursing from an ACEN- or CCNE-accredited program.
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.

Nurse-Midwifery (Offered in Cooperation with Shenandoah University)

Program is under revision.

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.

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.

Psychiatric Mental Health Nurse Practitioner (Offered in Cooperation with Shenandoah University)

Program is under revision.

The curriculum will consist of 52 credit hours: 25 of these hours will be taken in Marshall University's School of Nursing MSN program; and 27 credit hours will be taken from Shenandoah University's Division of Nursing.

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 27 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.

Upon successful completion of the 27 credit hours at Shenandoah, the student transfers these 27 hours to Marshall University. The student will receive an M.S.N. from Marshall University and a certificate from Shenandoah University.

Policies

Students in both the M.S.N. 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:

M.S.N. General Academic Policies

1. All graduate academic policies apply to all M.S.N. and post master's coursework. Students are required to review and download the current Graduate Catalog and M.S.N. Handbook upon admission to the M.S.N. program.
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 is permitted to repeat only one nursing course in the process of completing the MSN program.
4. 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 or post-master's certificate. (From *Graduate Catalog*.)
5. A student who earns 9 credits of a *C* in nursing courses will be dismissed from the program.
6. If a student earns a *D* or *F* in any course, he or she will be dismissed from the program.
7. Any student dismissed from the program may not reapply to the area of emphasis in which he or she was enrolled.
8. 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.
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. For graduate certificate programs, transfer credits may not exceed 6 credit hours. The grades earned in the classes to be transferred must be a *B* or better. 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. (From *Graduate Catalog*.)
11. All students must have a 3.00 GPA in their major to graduate and receive the MSN or post master's certificate.
12. A student must have an approved Plan of Study (POS) developed with his or her advisor prior to registering for any M.S.N. class. Any deviation from the student's POS must be approved by his or her advisor. Failure to comply with this policy can result in an administrative withdrawal from a course.

Other Policies

1. Each student must submit a satisfactory health record prior to registering for his/her first nursing course with a clinical component.
2. Each student is required to have an annual PPD screening test for Tuberculosis.
3. Each student must show evidence of the following prior to registering for any nursing course with a clinical component:
 - a. Current unencumbered professional nurse licensure in West Virginia and
 - b. Current certification in cardiopulmonary resuscitation.
4. Students are responsible for own transportation to and from all clinical assignments.
5. 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.
6. Students are required to pass and submit a background check and drug screen.

For additional information, contact the School of Nursing.

For additional policies, see the *Graduate Nursing Student Handbook*.

Plan of Study Family Nurse Practitioner

Code	Title	Credit Hours
Core Component Courses		
NUR 602	Theoretical Found in NUR	3
NUR 604	Leadership in Nursing	3
NUR 606	Advanced Nursing Research	3
NUR 608	Issues in Health Care	3
Area of Emphasis Component Courses		
NUR 620	Adv Pathophysiology I	2
NUR 621	Adv Pathophysiology II	2
NUR 622	Advanced Physical Assessment	5

NUR 624	Adv Family Nursing Practice I	5
NUR 626	Adv Family Nursing III	5
NUR 663	Advanced Pharmacology I	2
NUR 664	Advanced Pharmacology II	2
NUR 695	Internship: Adv Family Nur	6
Total Credit Hours		41

Nursing Administration

Code	Title	Credit Hours
Core Component Courses		
NUR 602	Theoretical Found in NUR	3
NUR 604	Leadership in Nursing	3
NUR 606	Advanced Nursing Research	3
NUR 608	Issues in Health Care	3
Area of Emphasis Component Courses		
NUR 642	Org Dynamics in Nursing	3
NUR 644	Financial Stra In Nur Adm	3
NUR 646	Nur Manage Health Care I	6
NUR 648	Nur Manage Health Care II	6
Elective Component Courses		
Select 6 credits from the following:		6
NUR 681	Thesis	
NUR 616	Curr Dev in Nursing	
NUR 618	Teaching in Nursing	
Other Electives		
Total Credit Hours		36

Nursing Education

Code	Title	Credit Hours
Core Component Courses		
NUR 602	Theoretical Found in NUR	3
NUR 604	Leadership in Nursing	3
NUR 606	Advanced Nursing Research	3
NUR 608	Issues in Health Care	3
Area of Concentration Component Courses		
NUR 616	Curr Dev in Nursing	3
NUR 618	Teaching in Nursing	3
NUR 619	Practicum: Teach Nursing	6
EDF 636	Advanced Classroom Assessment	3
CIEC 600	Instructional Design & Tech	3
EDF 619	Educational Psychology	3
Elective Course Options		
Select one of the following:		3
NUR 681	Thesis	
Other Electives		
Total Credit Hours		36

Nurse-Midwifery (Offered in Cooperation with Shenandoah University)

Program is under revision.

Code	Title	Credit Hours
Core and Related Courses at Marshall University		
NUR 602	Theoretical Found in NUR	3
NUR 604	Leadership in Nursing	3
NUR 606	Advanced Nursing Research	3
NUR 608	Issues in Health Care	3
NUR 620	Adv Pathophysiology I	2
NUR 621	Adv Pathophysiology II	2
NUR 622	Advanced Physical Assessment	5
NUR 663	Advanced Pharmacology I	2
NUR 664	Advanced Pharmacology II	2
Advanced Practice Midwifery Courses at Shenandoah University		
NM 610	Primary Care of Women	3
NM 620	Comprehensive Antepartal Care	3
NM 630	Midwifery Practicum	3
NM 640	Comprehensive Perinatal Care	3
NMLB 651	Integrated Midwifery Internship	5
NM 652	Evidence-Based Practice Project	1
NM 660	Advanced Nurse-Midwifery Role Development	1
Total Credit Hours		44

Psychiatric Mental Health Nurse Practitioner (Offered in Cooperation with Shenandoah University)

Program is under revision.

Code	Title	Credit Hours
Core and Related Courses at Marshall University		
NUR 602	Theoretical Found in NUR	3
NUR 604	Leadership in Nursing	3
NUR 606	Advanced Nursing Research	3
NUR 608	Issues in Health Care	3
NUR 620	Adv Pathophysiology I	2
NUR 621	Adv Pathophysiology II	2
NUR 622	Advanced Physical Assessment	5
NUR 663	Advanced Pharmacology I	2
NUR 664	Advanced Pharmacology II	2
Psychiatric Mental Health Nurse Practitioner Courses at Shenandoah University		
NP 599	Pharmacology and Therapeutics Independent Study	1
PMH 645	Individual Therapy Theories	3
PMH 650	Individual Therapy Practicum	3
PMH 665	Group, Family, Community Theory	3
PMH 670	Group, Family, Community Practicum	3
PMH 685	Geriatric PMH Nursing	3

PMH 686	Child and Adolescent Nursing	3
PMH 695	Advanced NP Practicum in PMH Nursing	4
HP 576	Substance and Relationship Abuse	3
NP 690	Advanced NP Role Development	1
Total Credit Hours		52

Physical Therapy, D.P.T.

School of Physical Therapy

Program Description

The Mission of the Marshall University School of Physical Therapy is to provide contemporary physical therapy education; to empower graduates and educators to exemplify excellence in clinical practice, scholarship, mentorship, leadership, and professionalism; and to engage all stakeholders in employing evidence-informed physical therapy that reflects and expands best practice.

The Doctor of Physical Therapy (DPT) program offered by the School of Physical Therapy at Marshall University is a full-time, three-year, nine-semester, 115-credit graduate program for students who wish to pursue a career as a physical therapist practitioner. Our inaugural class matriculated on May 21, 2012.

The curricular model of Marshall University's DPT program is a modified case-based model, designed in a "builds on, leads to" manner which is delivered in a full time, in-house format utilizing lecture, labs, small group discussion, case seminars, and clinical visits and internships, starting with education in the basic foundational sciences that inform the content of the field. Faculty teaching the foundational sciences facilitates discussion drawing on research, clinical experiences, and personal/professional activities to model professional behaviors, elucidates psychosocial and ethical issues, and presents a broad application of course content to practice settings. Through clinical cases intermingled within basic science didactic content, students are challenged to apply basic science information to solve clinical problems. Instruction in these basic science areas builds the foundation for the clinical coursework.

Within any given semester, we utilize team-taught, integrated course classes to encourage synthesis of material presented. Case Application Seminars and Experiences (CASE) courses provide students the opportunity to learn collaboratively in faculty-facilitated small groups. Most semesters, students attend laboratory sessions in local physical therapy/rehab clinics for hands-on experiences interspersed within the didactic coursework.

Early in the curriculum, students are introduced to the basic tools of investigation in PT (Evidence Based Practice course series). Starting with the clinical decision making process, they learn to utilize literature review and scientific method to support evidence based practice, and the process for utilizing and creating evidence to improve upon the body of knowledge that informs the profession. Basic clinical skills coursework forms the foundation for more advanced clinical courses in diagnosis and management.

Faculty emphasizes utilization of current, evidence-based practices that are built on the foundational sciences and are consistent with published research and clinical outcomes in the diagnosis and management process. Knowledge of the professional aspects of practice is integral to successful hands-on practice, and necessary to become a competent practitioner. Therefore, a series of professional

practice courses inculcate a working knowledge of communications, educational methodology and process, culture, ethics, law, health care delivery systems, administration, and the political aspects that influence the field of physical therapy.

Clinical education exposure/experiences are integrated into the first two years of the curriculum through case-based courses and seminars, and through clinic visits to local physical therapy facilities spread within the didactic course work, with the first full time clinical rotation/ internship (8 weeks) occurring early in the second year of the program. These rotations continue in the 3rd year with two full-time clinical internships, for 27 weeks in the last two semesters of the program, totaling 35 weeks of long-term clinical rotations/internship in the entire DPT program. This series of clinical experiences assures that the graduate has the opportunity to develop skills in a variety of practice settings, working within a team approach to patient management, under the direct supervision of a clinical instructor who is a licensed physical therapist.

Our 22600 sq ft space includes three classrooms/laboratories and eight seminar rooms for teaching purposes, a research laboratory (about 2000 sq ft), faculty and administrative offices, student locker rooms, restrooms and kitchen/lounge areas and specialized equipment necessary to teach the content taught in a physical therapy professional program. There is sufficient free parking to accommodate students, faculty, staff, patients and visitors.

Accreditation

Marshall University is accredited as an institution of higher learning by the Higher Learning Commission (230 South LaSalle Street, Suite 2400, Chicago, IL 60602; toll-free 1-800-621-7440, www.hlcommission.org (<http://www.hlcommission.org>)). The program has received approval from the Marshall Board of Governors to offer the DPT program, and program approval from the 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.captionline.org (<http://www.captionline.org>).

Admission Requirements

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 2019, all of your prerequisite courses must be completed by Summer 2019.

Code	Title	Credit Hours
Science¹		
	Biology (& lab)	8
	Chemistry (& lab)	8
	Physics (& lab)	8
	Human Anatomy ²	3
	Human Physiology ²	3
	Mathematics	3

Statistics ³	3
Biohavioral/Social Science	
Psychology (Preferably abnormal & developmental or life span)	6
English	
Composition/Writing	6

3. Clinical Observation Hours: Complete at least 60 clinical observation hours, preferably from two different settings under the direct supervision of a licensed physical therapist by the time of application. Please follow the instructions listed on the PTCAS website (www.ptcas.org/PTHours/ (<http://www.ptcas.org/PTHours/>)) to submit your hours for verification. For PTCAS general application, PT observation hours need to be completed no later than October 1. For PTCAS Early Decision application, PT observation hours need to be completed no later than July 31.
4. Grade Point Averages:
 - 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. GPA calculation for repeated courses:
 - For the 2017-2018 application cycle (class start date: May 21, 2018) & afterwards:
 - If a student retakes the same science course at the same institution and earns a higher grade on the second attempt, we will use the higher grade to calculate GPAs.
 - In other situation (i.e. taking the same science course more than two times at the same institution; retaking the same or equivalent course at a different institution), if a science course is repeated, we will use all grades earned for that course to calculate GPAs.
6. Completion of the Graduate Record Examination (GRE) with submission of scores at the time that the application is submitted. Please contact ETS to determine testing dates and sites. (1-800-GRE-CALL; www.ets.org/gre (<http://www.ets.org/gre/>)). For submitting your score report, our program code is "Marshall U Sch Phy Therapy PTCAS (0323)." Your score report will be received and verified by PTCAS. For PTCAS general application, GRE needs to be completed no later than October 1. For PTCAS Early Decision application, GRE needs to be completed no later than July 31. **Do Not** have ETS send your score report directly to Marshall University.⁴
7. 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 (<http://www.ptcas.org/>)).
8. *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.
9. *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.

- 1 All science prerequisite courses must be for science majors (a science course older than 10 years will not be accepted). Courses with a grade of C- or lower will not be accepted as 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, the outstanding course(s) must be completed with the appropriate minimal grade, prior to commencing the DPT program in May of the year for which students are applying.
- 2 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. A qualified course shall cover all major human body systems. Functional anatomy with a main emphasis on the musculoskeletal system and exercise physiology are not accepted.
- 3 If the statistics course is taken from the mathematics department, it can only meet the requirement of statistics prerequisite. (i.e. Another 3-credit course of mathematics is still needed.)
- 4 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. TOEFL requirement is waived for applicants who hold a bachelor's degree from an accepted, regionally accredited college or university in the United States. International applicants who hold a bachelor's degree from a college or university outside of the United States will have to complete their credential evaluation [WES International Credential Advantage Package (ICAP)] from the World Education Services (WES) to prove that their education is equivalent to the US undergraduate education and have the report sent to PTCAS.
- 5 Admission decisions are based on a variety of factors. The primary factor in all admission decisions is prior academic achievement (overall, science, and/or prerequisite grade point average – GPA and GRE scores) and the potential for an applicant to be successful in a rigorous PT curriculum. An applicant's volunteer experience, letters of recommendation, and interview performance are reviewed by members of the Admissions Committee. The Admissions Committee will also consider additional factors in the final admissions review process (e.g., undergraduate attendance at Marshall University or West Virginia state residency, veteran of the U.S. military, and certain economic, environmental, or geographic indicators contained in the PTCAS application).

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 (<http://www.ptcas.org/>).

MU DPT program will participate in the PTCAS Early Decision process. The Early Decision application is for applicants who have decided MU DPT program is their first choice and have met all of the following requirements:

- 1. a minimum overall GPA of 3.5;
- 2. a minimum total GRE score (verbal + quantitative) of 300;
- 3. a minimum GRE analytical writing score of 3.5;
- 4. no more than two outstanding science prerequisite courses at the time of application.

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.

Program Requirements Academic Progression

Provisions for academic progression are further outlined in the Graduate Catalog and SOPT Student Handbook. Academic progression is reviewed during orientation upon matriculation in the DPT Program and includes, but is not limited to, the following details regarding Academic Progression (probation, dismissal, re-entry):

- 1. Summer (DPT Semester 1) of First Year:
 - A student whose Grade Point Average falls between 2.99-2.90 will be recommended for academic probation by the APSC and approved by the SOPT chairperson.
 - A student whose Grade Point Average falls between 2.89-2.75 will be recommended for academic probation. The student may request to restart the DPT program with the following cohort or continue on probation. Due to CAPTE accreditation rule 9.8(a) that limits the class size for new, re-entering, and decelerating students, a maximum of 3 students per cohort will be allowed to restart the program. The APSC will review the academic/ professional performance of all students who request re-entry and recommend restarting the program based on overall Grade Point Average and academic performance in individual courses during the Summer semester.

- A student whose Grade Point Average falls below a 2.75 will be recommended for dismissed from the MUSOPT. The student may reapply to the program through PTCAS in the following year.
- 2. Any Semester thereafter (after Summer of First Year):
 - A student whose cumulative Grade Point Average falls between 2.99 - 2.75 will be recommended for academic probation by the APSC.
 - A student whose cumulative Grade Point Average falls below a 2.75 will be dismissed from the program and may reapply through PTCAS.
- 3. Any student who is on probation will have one semester to correct academic deficiencies. If a student has demonstrated academic progress and improved their cumulative Grade Point Average to 2.90 to 2.99 during the semester of probation, the student may appeal to the APSC for an additional consecutive semester of probation. Students are allowed a maximum of two semesters of academic probation as part of the DPT curriculum.
- 4. Following notification of probation and before the start of the next semester, the student will be counseled by their faculty advisor or the APSC. During this initial counseling session, the student will be advised of his/her deficiencies and the requirements for removing the deficiencies by the end of the following semester.
- 5. The SOPT Chairperson may either accept or overturn all recommendations by the APSC, and will subsequently inform the student of the final recommendation to the Dean of the Graduate College.
- 6. The Dean of the Graduate College makes the final decision regarding academic dismissal.
- 7. If the student disagrees with the SOPT Chairperson's decision, the student may appeal the decision in writing to the Dean of the Graduate College within 3 university business days after notification of dismissal.
- 8. In the event a student is placed on probation in the final fall semester (DPT semester 8) and it is mathematically unable to achieve a 3.0 GPA, the student will not be permitted to attend the intermediate internship (PT 792 Clinical Internship II) and referred to the APSC for review and to make a recommendation to the SOPT Chairperson.

Plan of Study

Course	Title	Credit Hours
First Year		
First Semester		
Summer (11 weeks)		
PT 700	Gross Anatomy for PT	5
PT 710	Intro to Human Movement	3
PT 750	Foundations of Phys Ther	2
PT 761	EBP I	2
Credit Hours		12
Second Semester		
Fall I (15 weeks)		
PT 701	Neuroanatomy	4
PT 711	Human Movement I	4
PT 720	Advanced Clinical Physiology	3
PT 731	Clinical Skills	3

PT 741	Medical Pathology in PT I	2
PT 751	Legal & Ethical Issues in PT	2
PT 771	Clin Application Seminar I (CASES)	1
Credit Hours		19

Third Semester**Spring I (15 weeks)**

PT 712	Human Movement II	4
PT 732	Therapeutic Interventions	3
PT 742	Medical Pathology in PT II	2
PT 744	Med Pathology in PT IV	3
PT 763	EBP II	2
PT 772	Clin Application Seminar II (CASES)	1
PT 781	Musculoskeletal 1	3
Credit Hours		18

Second Year**Fourth Semester****Summer II (10 weeks)**

PT 713	Human Movement III	2
PT 747	Pharmacology in Rehab	2
PT 758	PM&BC in PT Practice	1
PT 773	Clin Application Seminar III (CASES)	1
PT 782	Musculoskeletal II	4
Credit Hours		10

Fifth Semester**Fall II (8 weeks clinical; 7 weeks didactic)**

PT 702	Neuro Evaluation	1
PT 721	Applied Ex Phys	3
PT 754	Health Care Delivery Systems	1
PT 764	EBP III	1
PT 774	Clin Application Seminar IV (CASES)	1
PT 789	MSK III	1
PT 791	Clinical Internship I	4
Credit Hours		12

Sixth Semester**Spring II (15 weeks)**

PT 704	Neurorehabilitation	4
PT 755	Service Learning Practicum	1
PT 765	EBP IV	1
PT 775	Clin Application Seminar V (CASES)	1
PT 783	Cardiopulmonary in PT	4
PT 786	Rehab in Select Pops I	3
Credit Hours		14

Third Year**Seventh Semester****Summer III (11 weeks)**

PT 756	Administration in PT	3
PT 766	EBP V	1
PT 776	Clin Application Seminar VI (CASES)	1
PT 784	Integumentary	3
PT 787	Rehab in Select Pops II	2
PT 799	Integration & Review	1
Credit Hours		11

Eighth Semester**Fall III (6 weeks didactic; 12 weeks clinical)**

PT 785	Health Promo and Nutrition	2
PT 788	Rehab in Select Pops III	1
PT 792	Clinical Internship II	6
PT 777	Clin Application Seminar VII (CASES)	1
Credit Hours		10

Ninth Semester**Spring III (1 week didactic; 15 weeks clinical)**

PT 767	EBP VI	1
PT 793	Clinical Internship III	8
Credit Hours		9
Total Credit Hours		115

Public Health, M.P.H. Program Description

The Master of Public Health degree provides education and training to equip students for a broad range of careers including work in public health practice, research and policy. Two concentrations are offered, with a common core composed of training in not only fundamental public health subjects (including epidemiology, biostatistics, environmental health, sociobehavioral factors, and public health services), but also addressing critical cross-cutting competencies.

Students may elect one of two concentrations. Specialization in Global and Community Health (GCH) provides training focused on the critical need for community health professionals skilled in risk assessment, education, intervention, and program management - particularly in communities facing high disease burdens and limited resources. A second concentration in Research, Evaluation and Policy (REP) is designed to train health professionals with advanced training in research methods, biostatistics, analysis, and health policy to equip graduates to help produce systemic improvements in care delivery and value.

Admission Requirements

Students may be admitted to study for either fall or spring semester; however, spring matriculation for study in Research, Evaluation and Policy is made only in exceptional circumstances. Limited credit (6 hours maximum) may be granted to students transferring from CEPH-accredited programs.

Applicants must follow the admissions process 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/>). Specific additional program requirements include:

- Admitted students must hold a bachelor's degree from an accredited college or university with a minimum undergraduate grade-point average of 2.5 on a 4.0 scale. Waivers to the requirement may be made in exceptional circumstances, such as when prior satisfactory graduate school performance has been demonstrated.

- Submission of three (3) letters of recommendation. At least two must from previous faculty if the applicant has engaged in full-time post-secondary study in the previous five years.
- Resume of work history or curriculum vitae, to describe both post-secondary work and study.
- Personal statement not to exceed two pages in length.

Applications are evaluated on a competitive basis, and individual interviews may be utilized in the admissions process.

Program Requirements

The Master of Public Health requires 44 hours of coursework. First-year students gain a strong foundation of a broad core curriculum and are prepared for rotations and employment experiences in just two semesters.

Practicum training is complemented by a second year capstone composed of a comprehensive exam coupled with either a manuscript or a research thesis. The program may be completed in 4 semesters. In addition, three- and four-year study plans permit coordinated dual degree study.

Students choose from concentrations in either Global and Community Health (GCH) or Research, evaluation and Policy (REP).

Students must maintain a Grade Point Average of 3.0 or better throughout the program.

Accelerated Master’s Degree in Public Health

An Accelerated Master’s Degree with the B.S. in Health Sciences will allow Health Sciences students to take a full semester load of M.P.H. courses in their final year. Twelve credit hours of undergraduate electives taken in the senior year of the B.S. in Health Sciences will be replaced with 12 credits from the first year of the M.P.H. program. Specifically, the M.P.H. courses for the senior year of the B.S. will include:

Code	Title	Credit Hours
Fall Semester of Senior Year of BS in Health Sciences		
PH 601	Intro Public Health	1
PH 602	Public Health Biology	2
PH 611	Epidemiology	3
Spring Semester		
PH 686	Health Information Technology	3
PH 693	Law and Ethics	3
Total Credit Hours		12

Further information may be found in the section on Accelerated Graduate Degree programs in “Academic Regulations and Requirements.”

Plan of Study

Course	Title	Credit Hours
First Year		
First Semester		
PH 601	Intro Public Health (elective)	1

PH 602	Public Health Biology (elective)	2
PH 611	Epidemiology	3
PH 621	Statistical Methods I	3
PH 671	Community Health (GCH)	3
PH 615	Health Sys Research (REP)	3
Credit Hours		15

Second Semester

PH 641	Social Behavioral Aspects PH	2
PH 631	Environmental Health	2
PH 686	Health Information Technology (elective)	3
PH 693	Law and Ethics (elective)	3
PH 616	Clinical Trials (Health Communications) (GCH)	3
PH 622	Statistical Methods II (REP)	2
Credit Hours		15

Second Year

Third Semester

PH 655	Intro Health Policy	2
PH 661	Chronic Disease (GCH)	3
PH 672	Global Health (GCH)	3
PH 616	Clinical Trials (REP)	3
PH 617	Meth Comp Study	3
PH 694 or PH 695	Practicum or Research	3
Credit Hours		17

Fourth Semester

PH 692	Seminar (elective)	1
PH 651	Public Health Services	2
PH 656	Topics in Health Policy (REP)	3
PH 662	Control of Inf Disease (GCH)	3
PH 694	Practicum	3
PH 696	Capstone	3
Credit Hours		15
Total Credit Hours		62

Social Work, M.S.W.

Program Description M.S.W. Generalist Curriculum

The 2-year curriculum promotes a generalist perspective in which the simultaneous impact of many systemic levels (individuals, families, groups, organizations, and communities) on clients’ lives is critically analyzed and recognized. The foundation builds upon a liberal arts base that fosters an understanding of society as a complex organization of diverse people and ideas.

Social problems are understood as occurring within the nexus of culture, conflict, development, ecology, and systems and as such, efforts to help or intervene must include consideration of these forces. Students will be able to critically identify and assess social problems, specifically attending to:

1. how such problems are maintained;
2. how they impact the quality of people’s lives;
3. cultural sensitivity and appreciation of marginalized people; and

4. how to actively promote social and economic justice. In the foundation year, the focus is on the development of critical thinking skills in all the areas mentioned.

M.S.W. Advanced Curriculum-Advanced Social Work Practice

The advanced practice curriculum seeks to develop the utilization and application of critical thinking, relative to behavioral health, on all levels - in reading professional writing and research, in students' practice, in the classroom, and in the students' own thinking.

Consistently monitoring practice ethically, evaluating theoretical principles and epistemologies, and utilizing technological advances become basic practice patterns. Specific skill sets developed include:

1. Creating, organizing and integrating ideas and action on engaging diverse client systems effectively in change;
2. Assessing, conceptualizing and analyzing theoretical, practice and research problems from multiple perspectives and utilize critical thinking skills to formulate impressions based upon the data;
3. Analyzing, synthesizing and evaluating the evidence available to guide advanced social work practice;
4. Synthesizing, formulating and implementing a plan of action for social work practice that addresses complex issues and problems, builds consensus and incorporates multiple-level forces on client systems;
5. Analyzing and evaluating data of client progress and outcomes and sees implications and consequences of this progress and outcomes;
6. Synthesizing, creating, and organizing ideas from theory, research and practice for social justice;
7. Demonstrating the ability to integrate culturally competent skills into all aspects of social work practice;
8. Demonstrating the knowledge of the roles of behavioral health providers working in primary care settings, theories and models of care, and cross-cultural issues; and
9. Demonstrating skills in engagement, assessment, intervention planning and implementation, and practice evaluation in the primary and behavioral health care setting.

M.S.W. Practicum Education

All students admitted to the 60 credit hour program are required to satisfactorily complete 900 clock hours in approved practicum sites. If employed in a human services agency meeting the department's criteria as a placement site, the student may apply to undertake the practicum at her/his place of employment. This may be accomplished when the agency is willing to shift the student's work role and supervision in such a manner as necessary to meet the school's educational objectives for practicum instruction.

M.S.W. Electives

The Marshall University Department of Social Work provides electives as enrichment to the specialized learning in the advanced year. Social work positions call for skills and knowledge that are broader than any narrowly defined specialization.

For example, behavioral health care workers are asked to know psychopathology, substance abuse, managed care, AIDS, and a range of other substantive areas. Many school social workers share the need for the same content.

In addition, it is noted that social workers frequently change jobs, often to another field of practice. Social work education seeks to teach students to think critically, analyze systematically, and know where to find information and resources within the context of social work history, development and values. It is this type of education that best prepares students to function in a rapidly changing society.

Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: www.marshall.edu/graduate (<http://www.marshall.edu/graduate/>). Applications are received in the Department of Social Work for the M.S.W. by the priority date of March 30.

Students also must provide *two* recommendations. The letters must be original, must be signed and be sent directly to Graduate Admissions. These may be e-mailed from a verifiable e-mail account of the person providing the reference. Reference letters sent via e-mail need to have the signature of the person providing the reference (signed and scanned). These may be sent to services@marshall.edu.

Applicants are encouraged to submit at least one academic recommendation. If the applicant has not enrolled in classes within the past 5 years, this requirement may be waived and an additional work reference substituted. Evaluations should be submitted from persons who have been directly responsible for assessing and supervising your human service related work/volunteer experience and academic performance. Avoid personal references (coworkers, advisors, friends, clergy, personal therapists, etc.). The Marshall University Department of Social Work M.S.W. program requires two recommendation forms, however letters accompanying the forms are welcomed and strongly encouraged.

It is highly recommended that applicants who wish to be considered for the 30-hour Specialist/Advanced Standing program should submit their field evaluations if available, or one of their two letters of recommendation should be from their Director of Field Education, on-site Practicum Supervisor, or Practicum/Practice Instructor if the field evaluation is not accessible. The school reserves the right to request additional supportive material from persons acquainted with the applicant's academic and/or practice capabilities.

Program Requirements

For Conditional and/or Provisional admissions: 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.

Behavioral Health Area of Specialized Practice

The Behavioral Health Area of Specialized Practice prepares students to conduct clinical social work practice in assessing, treating, and evaluating mental health, substance abuse, and physical health in relation to one another across practice settings. A focus throughout the specialization will be on understanding the multiple factors that influence health disparities and best practices to increase health equity, particularly for marginalized populations. There will be a special emphasis on effectively serving vulnerable populations with multiple needs. The Behavioral Health specialization integrates Generalist practice by enhancing and expanding on Generalist knowledge, values,

and skills in the application of the planned change process across all size systems.

The Behavioral Health specialization extends and enhances the Generalist practice skills of engagement, assessment, planning, intervention, evaluation and termination across all sized systems by incorporating clinical courses focused on Advanced Clinical Social Work in Behavioral Health with Individuals and Families.

Plan of Study

Composition of the Master of Social Work Program Generalist/Foundation

Code	Title	Credit Hours
	Curriculum	21
	Field	9
	Total Credit Hours	30

Specialist/Advanced Curriculum

Code	Title	Credit Hours
	Curriculum	21
	Field Instruction	9
	Total Credit Hours	30

INTO Marshall Students

The Graduate Pathway program will require INTO students who are matriculating into social work to begin work toward their degree by taking SWK 203 Intro To Social Work.

Generalist

The M.S.W. program consists of a foundation-level Generalist curriculum to include the following:

Code	Title	Credit Hours
SWK 501	Foundations of Gen Practice I	3
SWK 511	Foundations of HBSE	3
SWK 521	Foundations of Social Policy	3
SWK 531	Foundations of Gen Practice II	3
SWK 541	Foundations of Research	3
SWK 551	Foundations of Field Practicum (450 work hours)	9

All Generalist 2-year students must complete 60 credits in order to graduate from the program. All students enrolled in the regular 60 credit program must complete two separate (two semesters each) academic yearlong field placements.

Advanced Standing in the Program

An applicant for admission to the Master of Social Work program who holds a baccalaureate degree from an undergraduate social work program accredited by the Council of Social Work Education may be admitted with advanced standing.

Code	Title	Credit Hours
SWK 615	Psychopathology	3
SWK 631	Int Health Models & Pract	3
SWK 633	Adv Clin SW Prac Ind Fam	3

The spring semester includes the following courses:

Code	Title	Credit Hours
SWK 634	Adv SW Prac Gps Com & Org	3
SWK 670	Adv Theory & Pract Child	3
SWK 673	Family & Community Violence	3
SWK 655	Comorb Ment & Phy Disorders	3
SWK 653	Adv Field Practicum (450 work hours)	9

Students who enter the program with Advanced Standing (30 credit hours total) complete only one (1) academic (two semesters) year-long field placement (9 credit hours, 450 work hours).

Sport Administration, M.S. Kinesiology

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.

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

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.

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):

Option 1:

- 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 295 combined score on verbal and quantitative reasoning on the GRE or at least 500 on the GMAT.

Option 2:

- If an applicant obtains an undergraduate Grade Point Average (GPA) of 3.3 or higher on a 4.0 scale for all previously completed undergraduate university work, the admissions examination of GRE or GMAT requirement may be waived.

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 a 285 combined score on verbal and quantitative reasoning on the GRE or at least 500 on the GMAT.

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.

Plan of Study

Programs illustrated as follows are the non-thesis option.

Sport Management Area of Emphasis

Code	Title	Credit Hours
Core		
STHM 615	Legal Concerns in STHM	3
STHM 652	Organ Behav Sprt Leis Indus	3
STHM 674	Sport Finance Economics	3
STHM 675	MKT MGT of Sport Industry	3
Research		
STHM 671	Research in Sports Studies	3
Statistics		
Select one of the following:		3
EDF 676	Statistical Methods	
MGT 500	Analytic Methods & Tech	
MGT 601	Quant Methods-Business	
PSY 517	Inter Behavioral Stat	
Equivalent		
Internship		
ESS 660	Internship	3
Restricted Electives		
Select 9 hours from the following:		9
STHM 511	Ethics in Sports	

STHM 516	Facility Design & Management	
STHM 540	Women in Sport	
STHM 575	Sem Sport MGT MKT	
STHM 624	Current Issues in STHM	
STHM 643	Sport in Social Process	
STHM 696	Seminar in STHM	
Selected courses with the approval of advisor.		
External Electives		
Select 6 hours of the following:		6
Graduate School of Management courses		
Selected courses with the approval of advisor		
Total Credit Hours		36

Recreation & Physical Activity Area of Emphasis

Code	Title	Credit Hours
Core		
STHM 615	Legal Concerns in STHM	3
STHM 652	Organ Behav Sprt Leis Indus	3
STHM 674	Sport Finance Economics	3
STHM 675	MKT MGT of Sport Industry	3
Research		
STHM 671	Research in Sports Studies	3
Statistics		
Select one of the following:		3
EDF 676	Statistical Methods	
MGT 500	Analytic Methods & Tech	
MGT 601	Quant Methods-Business	
PSY 517	Inter Behavioral Stat	
Equivalent		
Internship		
ESS 660	Internship	3
Restricted Electives		
Select 9 hours from the following:		9
STHM 511	Ethics in Sports	
STHM 516	Facility Design & Management	
STHM 540	Women in Sport	
STHM 575	Sem Sport MGT MKT	
STHM 624	Current Issues in STHM	
STHM 643	Sport in Social Process	
STHM 696	Seminar in STHM	
Selected courses with the approval of advisor		
External Electives		
Selected courses with the approval of advisor		6
Total Credit Hours		36

Sport Studies, Minor

Interested students should contact the director of the Sport Administration program.

College of Liberal Arts

Contacts: Dr. Robert Bookwalter, Dean

Website: <http://www.marshall.edu/cola> (<http://www.marshall.edu/cola/>)

cola@marshall.edu

Programs

- Anthropology, Minor (p. 241)
- Appalachian Studies, Graduate Certificate (p. 241)
- Behavioral Statistics, Graduate Certificate (p. 242)
- Clinical Psychology, Post-Master's Certificate (p. 242)
- Clinical Psychology, Psy.D. (p. 243)
- Communication Studies, M.A. (p. 247)
- English, M.A. (p. 248)
- Geography, Accelerated Master's Degree (p. 249)
- Geography, M.A. (p. 249)
- Geography, M.S. (p. 250)
- Geography, Minor (p. 252)
- Geospatial Information Science-Advanced, Graduate Certificate (p. 252)
- Geospatial Information Science-Basic, Graduate Certificate (p. 254)
- History, M.A. (p. 254)
- History, Minor (p. 255)
- Humanities, M.A. (p. 255)
- Latin, Graduate Certificate (p. 256)
- Nonprofit Management, Graduate Certificate (p. 256)
- Philosophy, Minor (p. 256)
- Psychology, Accelerated Master's Degree (p. 256)
- Psychology, M.A. (p. 257)
- Psychology, Minor (p. 260)
- Public Administration, M.P.A. (p. 260)
- Public History, Graduate Certificate (p. 261)
- Sociology, Accelerated Master's Degree (p. 262)
- Sociology, M.A. (p. 262)
- Sociology, Minor (p. 263)
- Women's Studies, Graduate Certificate (p. 263)

Courses

Anthropology

ANT 511 Deconstructing Appalachia **3 Credit hours**

Exploration of the historical and cultural significance of Appalachia in the American experience and imagination.

Grade Mode: Normal Grading Mode

ANT 512 Appalachian Field Exp I **3 Credit hours**

Supervised fieldwork in an Appalachian community studying the social and cultural characteristics of the area.

Pre-req: ANT 511.

Grade Mode: Normal Grading Mode

ANT 528 Arch Theory and Analysis **3 Credit hours**

An introduction to archaeological theory and its application to the material record of cultures past and present.

Grade Mode: Normal Grading Mode

ANT 540 African Cultures **3 Credit hours**

Comparative analysis of the ethnic groups of Africa using archaeological and ethnographic data.

Grade Mode: Normal Grading Mode

ANT 564 Design Planning & Health **3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ANT 565 Disaster, Culture & Health **3 Credit hours**

Study of contemporary environmental and social problems emphasizing health impacts of natural and technological disasters on communities around the world.

Grade Mode: Normal Grading Mode

ANT 566 Culture and Environment **3 Credit hours**

This course will examine the symbolic and structural dimensions of struggles over defining, organizing, and controlling the natural environment from a biocultural perspective.

Grade Mode: Normal Grading Mode

ANT 567 Culture through Ethnography **3 Credit hours**

In depth exploration and comparison of diverse cultural groups through reading and discussing ethnographic texts.

Grade Mode: Normal Grading Mode

ANT 568 National Identity **3 Credit hours**

Exploration of the cultural, political and economic processes that contribute to the creation and maintenance of the modern nation state as an imagined community.

Grade Mode: Normal Grading Mode

ANT 572 Language Gender Body **3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ANT 580 Special Topics **1-4 Credit hours**

Study of topics of interest not covered in regularly scheduled classes.

Grade Mode: Normal Grading Mode

ANT 581 Special Topics **1-4 Credit hours**

Study of topics of interest not covered in regularly scheduled classes.

Grade Mode: Normal Grading Mode

ANT 582 Special Topics **1-4 Credit hours**

Study of topics of interest not covered in regularly scheduled classes.

Grade Mode: Normal Grading Mode

ANT 583 Special Topics **1-4 Credit hours**

Study of topics of interest not covered in regularly scheduled classes.

Grade Mode: Normal Grading Mode

ANT 585 Independent Study **1-4 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode

ANT 586 Independent Study **1-4 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode

ANT 587 Independent Study 1-4 Credit hours
Individual study of topics not offered in regularly scheduled classes.
Grade Mode: Normal Grading Mode

ANT 588 Independent Study 1-4 Credit hours
Individual study of topics not offered in regularly scheduled classes.
Grade Mode: Normal Grading Mode

ANT 591 Theory in Ethnology 3 Credit hours
Introduction to major theoretical traditions of cultural anthropology with emphasis on the connection between fieldwork and development of theory.
Grade Mode: Normal Grading Mode

ANT 600 Ethnographic Research 3 Credit hours
An advanced project-based introduction to ethnographic research design and practice.
Grade Mode: Normal Grading Mode

ANT 609 Professional Development 3 Credit hours
Individual study of topics not offered in regularly scheduled classes.
Grade Mode: Normal Grading Mode

ANT 685 Independent Study 1-4 Credit hours
Individual study of topics not offered in regularly scheduled classes.
Grade Mode: Normal Grading Mode

ANT 686 Independent Study 1-4 Credit hours
Individual study of topics not offered in regularly scheduled classes.
Grade Mode: Normal Grading Mode

ANT 687 Independent Study 1-4 Credit hours
individual study of topics not offered in regularly scheduled classes.
Grade Mode: Normal Grading Mode

ANT 688 Independent Study 1-4 Credit hours
Individual study of topics not offered in regularly scheduled classes.
Grade Mode: Normal Grading Mode

Arts & Society - Humanities

A&S 500 Prds/Mvmts Wstrn Art & Music 3 Credit hours
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.
Grade Mode: Normal Grading Mode

A&S 501 Stdys/Non-Western Art & Music 3 Credit hours
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.
Grade Mode: Normal Grading Mode

A&S 510 Comparative Arts 3 Credit hours
Study of artistic movements and specific stylistic features in art, music and literature. May be repeated for a maximum of 6 hours.
Grade Mode: Normal Grading Mode

A&S 550 Sunrise Internship 3 Credit hours
A specially designed project under the guidance of specialists at Sunrise Museums (requires special permission from the program director and Sunrise Museums).
Grade Mode: Normal Grading Mode

A&S 560 Film Art & Popular Media 3 Credit hours
A consideration of films as the successors to earlier popular literature. Relevant aspects of media history and techniques will be examined.
Grade Mode: Normal Grading Mode

A&S 600 Selected Topics in Arts & Soc 1-6 Credit hours
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.

Grade Mode: Normal Grading Mode

A&S 620 Selected Topics/Decorative Art 1-6 Credit hours
Selected topics in history and practices of decorative arts (e.g., interior design, furniture styles, architecture)
Grade Mode: Normal Grading Mode

Communication Studies

CMM 501 Organization Communicatn 3 Credit hours
Investigation of information flow in organizations with emphasis on identifying communication problems.
Grade Mode: Normal Grading Mode

CMM 502 Rhetorical Theory 3 Credit hours
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.
Grade Mode: Normal Grading Mode

CMM 504 Rhetorical Comm Criticism 3 Credit hours
An examination of the construction of rhetorical texts and the effects they produce.
Grade Mode: Normal Grading Mode

CMM 506 Interviewing 3 Credit hours
Skill development in the question-answer-response process as it applies to a variety of interviewing situations.
Grade Mode: Normal Grading Mode

CMM 508 Leadership & Group Comm 3 Credit hours
A study of the variables affecting, and affected by, the communication process in small groups, with particular emphasis upon leadership variables.
Grade Mode: Normal Grading Mode

CMM 509 Theory Persuasion Change 3 Credit hours
Study of the relationship between persuasion and social change, including theories of attitude and behavioral change and contemporary theories of persuasion.
Grade Mode: Normal Grading Mode

CMM 511 Communication Std & Res 3 Credit hours
Introduction to the advanced study of theory and research areas with emphasis on communication research methods and reporting.
Grade Mode: Normal Grading Mode

CMM 513 Theories of Interpersonal Comm 3 Credit hours
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.
Grade Mode: Normal Grading Mode

CMM 521 Gender and Communication 3 Credit hours
An exploration of gender as an organizing principle for communication.
Grade Mode: Normal Grading Mode

CMM 550 Direction Speech Activity 3 Credit hours
Direction of extra-curricular speech activities-assemblies, forensic events, etc.
Grade Mode: Normal Grading Mode

CMM 556 Computer-Mediated Comm	3 Credit hours	CMM 620 Communication & Conflict	3 Credit hours
This course explores the impact of computer-mediated communication on human organization.		An exploration of the theory, research, and practice of communication in understanding and negotiating interpersonal conflict.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CMM 576 Communication for CIs Tch	3 Credit hours	CMM 650 Leaders/Movements Com Ed	3 Credit hours
Knowledge and utilization of interpersonal communication skills in all teaching-learning environment.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CMM 580 Special Topics	1-4 Credit hours	CMM 656 Seminar in Public Com	3 Credit hours
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 670 Interpersonal Health Comm	3 Credit hours
CMM 581 Special Topics	1-4 Credit hours	Explores communication demands of human healthcare and healthcare promotion; examines communication controversies in the modern healthcare system, and examines communication strategies to resolve healthcare problems.	
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 671 Health Comm Campaigns	3 Credit hours
CMM 582 Special Topics	1-4 Credit hours	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.	
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 673 Sem Interpersonal Comm	3 Credit hours
CMM 583 Special Topics	1-4 Credit hours	Intensive treatment of principles and processes underlying dyadic communication. Designed to enable the student to diagnose and intervene to resolve communication problems.	
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 674 Seminar Comm Pedagogy	3 Credit hours
CMM 585 Independent Study	1-4 Credit hours	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.	
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 675 Seminar	1-3 Credit hours
CMM 586 Independent Study	1-4 Credit hours	Program of study not normally covered in other courses. Topics vary from semester to semester.	
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 676 Seminar	1-3 Credit hours
CMM 587 Independent Study	1-4 Credit hours	Program of study not normally covered in other courses. Topics vary from semester to semester.	
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 677 Special Topics	1-3 Credit hours
CMM 588 Independent Study	1-4 Credit hours	Program of study not normally covered in other courses. Topics vary from semester to semester.	
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 678 Special Topics	1-3 Credit hours
CMM 601 Prob & Meth Com Research	3 Credit hours	Program of study not normally covered in other courses. Topics vary from semester to semester.	
An introduction to graduate studies, including clinical and research applications; quantitative and qualitative research methodology; critical analysis of clinical instruments and research literature.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 680 Grantwriting-Nonprofits	3 Credit hours
CMM 602 Comm Consult Strategies	3 Credit hours	Provides a communication framework for analyzing a nonprofit agency; reviews the steps in grantwriting; matches the needs of the nonprofit organization with the grantfunder; and synthesizes the material required to write a successful grant.	
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.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode			
CMM 603 Nonverbal Communication	3 Credit hours		
This course examines the major dimensions of study in nonverbal communication, and the functions and effects of nonverbal messages.			
Grade Mode: Normal Grading Mode			
CMM 605 Qual Research Methods	3 Credit hours		
This course provides an introduction to qualitative research methods and their application in communication studies.			
Grade Mode: Normal Grading Mode			
CMM 606 Study Communication Thry	3 Credit hours		
An extensive investigation into the major concepts of contemporary communication theory.			
Grade Mode: Normal Grading Mode			

CMM 681 Thesis

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

CMM 685 Independent Study

PR: Permission of chair.
Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

CMM 686 Independent Study

PR: Permission of chair.
Grade Mode: Normal Grading Mode

CMM 687 Independent Study

PR: Permission of chair.
Grade Mode: Normal Grading Mode

CMM 688 Independent Study

PR: Permission of chair.
Grade Mode: Normal Grading Mode

CMM 689 Internship

Supervised work experience in communication. (PR: Permission of Department Chair)
Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

Cultural Studies-Humanities

CULS 500 Stdys in Thought & Culture**3 Credit hours**

Basic concepts and cultural expressions in words, principally of area or period studies, such as classical Western, medieval Western, modern European and American.
Grade Mode: Normal Grading Mode

CULS 530 Appr to Communic Criticism**3 Credit hours**

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.
Grade Mode: Normal Grading Mode

CULS 540 World Religions**3 Credit hours**

Study of several religions as they developed within their individual times and cultures.
Grade Mode: Normal Grading Mode

CULS 550 Ethics**3 Credit hours**

A critical examination of ethical theories as seen in a detailed examination of several works. Theories may include naturalism, intuitionism, non-cognitivism, unitarianism, and natural law.
Grade Mode: Normal Grading Mode

CULS 560 History of Ideas**3 Credit hours**

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.
Grade Mode: Normal Grading Mode

CULS 600 Selected Topics in Cultural St**1-6 Credit hours**

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.
Grade Mode: Normal Grading Mode

CULS 610 Seminar in Appalachian Culture**3 Credit hours**

Exploration of selected aspects of culture (e.g., art, music folklore, history, literature), emphasizing regional culture from an interdisciplinary perspective.
Grade Mode: Normal Grading Mode

CULS 611 Appal Std: Themes & Voices**3 Credit hours**

This interdisciplinary course orients students to the significant issues and research in Appalachian studies. Important political, social, and cultural issues will be considered. Research areas are introduced.
Grade Mode: Normal Grading Mode

CULS 612 Time & Place in Appalachia**3 Credit hours**

This interdisciplinary course orients students to the importance of geography, topography, and geology to the history and development of the Appalachian region.
Grade Mode: Normal Grading Mode

CULS 620 Women/Men & Cultural Change**3 Credit hours**

A study of gender differences from sociological and philosophical perspectives. Topical areas covered include communications, law, literature, popular culture, ethics, and business.
Grade Mode: Normal Grading Mode

CULS 650 Classical Fdtns Comm Studies**3 Credit hours**

Cause 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
Grade Mode: Normal Grading Mode

CULS 651 1st Amendment-Social/Ed Issues**3 Credit hours**

Grade Mode: Normal Grading Mode

CULS 652 Communications/Social Mvmts**3 Credit hours**

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.
Grade Mode: Normal Grading Mode

CULS 653 Media & the Political Process**3 Credit hours**

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.
Grade Mode: Normal Grading Mode

English

ENG 500 Listening/Speaking in Context**3 Credit hours**

This course promotes the development of English language fluency by nonnative speakers of English. It specifically targets the language skills necessary for successful oral communication within a graduate school context.
Grade Mode: Normal Grading Mode

ENG 501 Reading in Context**3 Credit hours**

This course prepares nonnative speakers of English to meet the challenges of reading for academic purposes at the graduate college level by improving their reading skills and English language proficiency.
Grade Mode: Normal Grading Mode

ENG 502 Comp & Rhet for Teachers**3 Credit hours**

Study of rhetorical invention and models of composing process, with intensive practice in writing.
Grade Mode: Normal Grading Mode

ENG 505 History English Language**3 Credit hours**

The phonology, spelling, grammar, syntax, and vocabulary of previous language periods as background to Modern English.
Grade Mode: Normal Grading Mode

ENG 506 Composition in Context**6 Credit hours**

This course for nonnative speakers of English focuses on written English within a graduate school context. Attention is placed on grammar, mechanics, research, American English rhetorical conventions, and process writing.

Grade Mode: Normal Grading Mode**ENG 507 Writing, Editing & Doc Design****3 Credit hours**

Study of the principles and practices of professional writing, editing, and document design.

Grade Mode: Normal Grading Mode**ENG 508 Writing in the Digital World****3 Credit hours**

Development of writing skills and strategies with an emphasis on digital texts and genres.

Grade Mode: Normal Grading Mode**ENG 509 Milton****3 Credit hours**

Biographical and critical study, including Milton's English poetry and prose, and his literary and intellectual milieu.

Grade Mode: Normal Grading Mode**ENG 510 Shaks Comedy Tragedy & Rom****3 Credit hours**

Intensive study of Shakespeare's comedies, tragicomedies and late romances. Also includes the Sonnets and Venus and Adonis.

Grade Mode: Normal Grading Mode**ENG 511 Chaucer****3 Credit hours**

The poetry of Chaucer, including the Canterbury Tales, in the light of medieval tradition and critical analysis.

Grade Mode: Normal Grading Mode**ENG 512 Shaks Hist & Tragedies****3 Credit hours**

Intensive study of Shakespeare's histories and Tragedies.

Grade Mode: Normal Grading Mode**ENG 514 19th Cent English Novel****3 Credit hours**

Austen, Scott, the Brontes, Eliot, Dickens, Thackeray, Trollope, Meredith, Hardy, Butler, Wilde, and their contemporaries.

Grade Mode: Normal Grading Mode**ENG 515 Victorian Poetry****3 Credit hours**

Emphasis on Tennyson, the Brownings, Arnold, Hopkins, Christina Rossetti, Hardy and the pre-Raphaelites.

Grade Mode: Normal Grading Mode**ENG 516 Victorian Nonfiction****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ENG 517 English Drama to 1642****3 Credit hours**

Non-Shakespearean English drama from its beginnings to the closing of the theatres.

Grade Mode: Normal Grading Mode**ENG 519 Approaches Teaching Lit****3 Credit hours**

The intensive study of the pedagogy of literature and literary critical theory and its classroom applications.

Grade Mode: Normal Grading Mode**ENG 521 American Lit to 1830****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ENG 522 American Lit 1830-1865****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ENG 523 American Lit 1865-1914****3 Credit hours**

American literature of the Realistic and Naturalistic periods, including such authors as Howells, Twain, James, Dreiser, Chesnutt, Wharton, Crane, and Chopin.

Grade Mode: Normal Grading Mode**ENG 524 American Literature after 1914****3 Credit hours**

American literature after 1914, including such authors as Faulkner, Hemingway, Cather, Mailer, Carver, Vonnegut, Morrison and others.

Grade Mode: Normal Grading Mode**ENG 526 Appalachian Lit & Theory****3 Credit hours**

Appalachian Literature and Theory conducts an in-depth study of aspects of Appalachian culture and literature through the lens of select literary and social theories such as multiculturalism, feminism, or post-colonialism.

Grade Mode: Normal Grading Mode**ENG 528 International Literature****3 Credit hours**

Readings in contemporary literature from the non Anglo-European world. Texts by Asian, African, South American, Australian, and other authors.

Grade Mode: Normal Grading Mode**ENG 530 Young Adult Literature****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ENG 531 Writing for Nonprofit****3 Credit hours**

This course focuses on the genres and strategic applications of writing for nonprofit organizations. Students will analyze relevant texts and resources while writing and producing materials that nonprofits require.

Grade Mode: Normal Grading Mode**ENG 532 Contemporary Literature****3 Credit hours**

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/ managa, 'zines, blogs, hypertext).

Grade Mode: Normal Grading Mode**ENG 533 Contemp English Poetry****3 Credit hours**

Principle poetry since the Victorian period.

Grade Mode: Normal Grading Mode**ENG 534 Contemp American Poetry****3 Credit hours**

Principle poetry since 1900.

Grade Mode: Normal Grading Mode**ENG 535 Modernism****3 Credit hours**

A study of trans-Atlantic Modernist writers, including both poetry and prose.

Grade Mode: Normal Grading Mode**ENG 536 Medieval English Lit****3 Credit hours**

Old English elegiac and heroic poetry; Middle English lyrics and romances; the Ricardian poets and Malory

Grade Mode: Normal Grading Mode

ENG 537 Tudor Lit 16th Century	3 Credit hours	ENG 581 Special Topics	1-4 Credit hours
Survey may include works by More, Skelton, Wyatt, Sidney, Spenser, Nashe, Marlowe, Raleigh, Lyly, Sidney, Mary Sidney, and Shakespeare, excluding drama.		(PR: Permission of the chair)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 538 17th Century Lit	3 Credit hours	ENG 582 Special Topics	1-4 Credit hours
Survey may include Donne and the Metaphysical poets, the Cavalier lyricists, Bacon, Browne, Wroth, Cary, Lanyer, Herbert, Jonson, Burton, Walton, Hobbes, and Bunyan.		(PR: Permission of the chair)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 547 English Romantic Poets	3 Credit hours	ENG 583 Special Topics	1-4 Credit hours
Emphasis on Blake, Wordsworth, Coleridge, Byron, Shelly, and Keats.		(PR: Permission of the chair)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 555 Literary Criticism	3 Credit hours	ENG 585 Independent Study	1-4 Credit hours
Historical study, with application of principles.		(PR: Permission of the chair)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 560 Comp and Writing Center Theory	4 Credit hours	ENG 586 Independent Study	1-4 Credit hours
Introduces students to the study of teaching writing in a classroom setting and in one-to-one tutoring. (PR: graduate program admission)		(PR: Permission of the chair)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 566 Literacy Studies	3 Credit hours	ENG 587 Independent Study	1-4 Credit hours
Theories of writing and reading development with a focus on cultural, linguistic, and rhetorical influences on literacy acquisition.		(PR: Permission of the chair)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 567 Visual Rhetoric	3 Credit hours	ENG 588 Independent Study	1-4 Credit hours
Study of the production, strategies, reception, and persuasive effects of visual texts.		(PR: Permission of the chair)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 569 Creative Writing Pedagogy	3 Credit hours	ENG 591 Poetry Workshop	3 Credit hours
A study of the professional and pedagogical methods and theories related to teaching and designing courses in creative writing.		A practical and intensive class in exploring the varieties of creative expression; exercises on the creating of verse in different forms and styles.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 570 Form/Theory: Creative Writing	3 Credit hours	ENG 592 Fiction Workshop	3 Credit hours
Readings in contemporary literature (fiction, non-fiction, and poetry) addressing the work in terms of the formal and theoretical concerns that drive it. Course text will challenge notions of genre, form, theory, and practice.		A forum for presentation, discussion, and refinement of the student's work, either short stories or novels.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 575 Intro to Linguistics	3 Credit hours	ENG 593 Creative Nonfiction Workshop	3 Credit hours
The structural and descriptive approach to study of the English language.		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.).	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 576 Structures of English Language	3 Credit hours	ENG 615 TESOL Methods	3 Credit hours
Study of the structures of English grammar, including how these structures relate to punctuation, language acquisition, dialect variation, and the history of English.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 578 Intro to Sociolinguistics	3 Credit hours	ENG 617 TESOL Curriculum Dev	3 Credit hours
Sociolinguistics is the study of the effects of language in society, relevant to discourse practices, language attitudes, variations, shifts, and changes.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 580 Special Topics	1-4 Credit hours	ENG 618 Language Assessment	3 Credit hours
(PR: Permission of the chair)		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	

ENG 622 Second Language Learning 3 Credit hours This course starts with an overview of disciplinary frameworks of language development, then addresses the four major theoretical perspectives: linguistics, cognitive, sociolinguistic and sociocultural. Grade Mode: Normal Grading Mode	ENG 636 Selected English Writers 3 Credit hours An intensive study of a small group of selected English writers such as the Metaphysical Poets, the Cavalier Poets, or the Bloomsbury Group. Pre-req: ENG 630. Grade Mode: Normal Grading Mode
ENG 624 20th Century British Novel 3 Credit hours Major British novelists of the twentieth century. Grade Mode: Normal Grading Mode	ENG 637 Topics in English Lit 3 Credit hours A concentrated study of themes or influences in English literature; for example, narrative strategies, medievalism, the pastoral mode, or conflicting moral, social or literary values. Pre-req: ENG 630. Grade Mode: Normal Grading Mode
ENG 625 20th Century American Novel 3 Credit hours Major American novelists of the twentieth century. Pre-req: ENG 630. Grade Mode: Normal Grading Mode	ENG 638 Language and Context 3 Credit hours Survey of genre and register analysis research from the three perspectives of ESP (English for Special Purpose), New Rhetoric, and Systemic Functional Linguistics. Grade Mode: Normal Grading Mode
ENG 626 Systemic Functional Grammar 3 Credit hours This course is a general introduction to the principles and practice of Systemic Functional Grammar with an emphasis on the paradigmatic meaning making potential of language systems. Grade Mode: Normal Grading Mode	ENG 639 CALL 3 Credit hours This graduate seminar course introduces students to general topics of computer-assisted language learning (CALL), focusing on the use and research of computer technologies in second-language teaching and learning. Students will gain updated pedagogical knowledge on the integration of CALL in language classes, and also develop competence to evaluate and conduct research in CALL. Grade Mode: Normal Grading Mode
ENG 627 Text Analysis 3 Credit hours Text analysis compares crucial aspects of English syntax, discourse pragmatics, and prepositional and lexical semantics with those of other languages. Grade Mode: Normal Grading Mode	ENG 640 Composition Pedagogy 3 Credit hours This course builds on composition theory to address the various pedagogies and strategies most commonly practiced in the beginning composition classroom. Required for graduate assistants in English. Grade Mode: Normal Grading Mode
ENG 628 20th Cent African-American Lit 3 Credit hours An intensive study of selected novels, plays and poems of the period. Pre-req: ENG 630. Grade Mode: Normal Grading Mode	ENG 645 Res Method Comp & Rhet 3 Credit hours An applied survey course in the theories, methods, and designs of research in the discipline of Composition and Rhetoric. Pre-req: ENG 560. Grade Mode: Normal Grading Mode
ENG 630 Materials & Meth Research 3 Credit hours Instruction and practice in scholarly literary research. Required among first 12 hours of course work and prior to admission to candidacy for the Master of Arts degree with a major in English. Grade Mode: Normal Grading Mode	ENG 646 Topics Rhetoric Composition 3 Credit hours Study of prevailing topics in Rhetoric and Composition. Topics may include Eco-Rhetoric, Assessment, and the Rhetoric of Science, among others. Pre-req: ENG 560. Grade Mode: Normal Grading Mode
ENG 631 Major American Authors 3 Credit hours An intensive study of selected American authors. Pre-req: ENG 630. Grade Mode: Normal Grading Mode	ENG 648 Feminist Rhetorics 3 Credit hours Study of the ways language shapes and is influenced by gender and identity. Grade Mode: Normal Grading Mode
ENG 632 Topics in American Lit 3 Credit hours Concentrated study of continuing themes or influences in American literature; for example, narrative perspectives, regional influences, or conflictinag agrarian and industrial values. Grade Mode: Normal Grading Mode	ENG 650 Special Topics 3 Credit hours Topics designed by individual professors according to special interests (outside of strictly English or American literature subjects) and approved departmentally on a year- to-year basis, to be offered the following year. Grade Mode: Normal Grading Mode
ENG 633 ENG Research Applied Lin 3 Credit hours To inform students of various approaches to research in applied linguistics. To equip students with the critical skills to evaluate research with the end result of conducting their own research. Grade Mode: Normal Grading Mode	ENG 651 Special Topics 3 Credit hours Grade Mode: Normal Grading Mode
ENG 634 Teaching EAP 3 Credit hours To help students understand the characteristics of academic English, and to train pre-service ESL or EFL teachers on how to teach English for academic purposes. Grade Mode: Normal Grading Mode	ENG 652 Special Topics 3 Credit hours Grade Mode: Normal Grading Mode
ENG 635 Major Texts 3 Credit hours An intensive study of a single major text from any period of British, American, or anglophone literature, leading to mastery of the text, its critical responses, and its influences. Grade Mode: Normal Grading Mode	

ENG 653 Special Topics**3 Credit hours**

Topics designed by individual professors according to special interests (outside of strictly English or American literature subjects) and approved departmentally on a year- to-year basis, to be offered the following year.

Grade Mode: Normal Grading Mode**ENG 660 Literary Theory****3 Credit hours**

Intensive introduction to one or more literary or cultural theories, familiarizing students with the major developments, terms, premises, and debates of the theory or theories in question.

Grade Mode: Normal Grading Mode**ENG 661 Studies in Genre****3 Credit hours**

An intensive study of one or more literary genres, familiarizing students with the major developments, terms, premises, and debates concerning the genre or genres in question.

Pre-req: ENG 630.**Grade Mode:** Normal Grading Mode**ENG 665 Creative Writing Workshop****3 Credit hours**

An intensive multi-genre study of the best practices for the writing and revising of creative writing.

Grade Mode: Normal Grading Mode**ENG 670 TESOL Practicum I****3 Credit hours**

This supervised practicum engages students in classroom observation and promotes their ability to reflect on classroom practice.

Pre-req: ENG 615 or ENG 617 or ENG 651.**Grade Mode:** Credit/No Credit Grade Only**ENG 671 TESOL Practicum II****3 Credit hours**

In this supervised practicum, students design and implement lessons in language classrooms. Students receive feedback on their teaching and engage in the practice of reflection.

Pre-req: ENG 670.**Grade Mode:** Credit/No Credit Grade Only**ENG 675 Professional Topics in Writing****3 Credit hours**

A study of professional topics on the writing, editing/publishing and teaching of writing in the current literacy and job markets.

Grade Mode: Normal Grading Mode**ENG 681 Thesis****1-9 Credit hours****Pre-req:** ENG 630.**Attributes:** No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**ENG 682 Portfolio****1-9 Credit hours**

Extensive revision and creation of new original writing for the purposes of demonstrating knowledge and ability, as well as preparing students for further graduate study or the job market.

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**ENG 683 Comprehensive Exams****1-9 Credit hours**

Preparation and extensive reading for exams in three areas of study. Students are expected to demonstrate expertise in these three areas through completion of essay exams.

Grade Mode: Credit/No Credit Grade Only**ENG 685 Independent Study****1-4 Credit hours**

Independent Study

Grade Mode: Normal Grading Mode**ENG 686 Independent Study****1-4 Credit hours**

Independent Study

Grade Mode: Normal Grading Mode**ENG 687 Independent Study****1-4 Credit hours**

Independent Study

Grade Mode: Normal Grading Mode**ENG 688 Independent Study****1-4 Credit hours**

Independent Study

Grade Mode: Normal Grading Mode**ENG 689 Internship****1-4 Credit hours**

Supervised work experience in English.

Grade Mode: Normal Grading Mode**Geography****GEO 502 Geography of Appalachia****3 Credit hours**

A study of the geography of Appalachia, including landforms, climate, settlement patterns, population, economics, resources, politics, and environmental changes.

Grade Mode: Normal Grading Mode**GEO 504 Geography of Europe****3 Credit hours**

An examination of the geography of Europe focusing on contemporary issues, including climate, culture, economics, environmental change, everyday life, international relations, landforms, language, politics, population, religion, and urbanization.

Grade Mode: Normal Grading Mode**GEO 505 Political Geography****3 Credit hours**

An examination of contemporary patterns, processes, and problems of political geography in global perspective, including globalization, colonialism, imperialism, geopolitics, nationalism, diplomacy, international borders, governance, political representation, and future projections.

Grade Mode: Normal Grading Mode**GEO 506 Population Geography****3 Credit hours**

An examination of contemporary patterns, processes, and problems of population geography in global perspective, including fertility, mortality, demographic change, migration, malnutrition, urbanization, natural resource sustainability, and future projections.

Grade Mode: Normal Grading Mode**GEO 508 Geog of South & Middle America****3 Credit hours**

A study of settlement, transportation, manufacturing agriculture, geopolitics and natural resources of South and Middle American countries.

Grade Mode: Normal Grading Mode**GEO 510 Urban Geography****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**GEO 511 Health and Medical Geography****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**GEO 522 Environmental Geography****3 Credit hours**

Geographical survey of environmental changes caused by human activities. Focus on resource availability and use; pollution of air, water, and biosphere; energy problems, and human interaction with natural movement.

Grade Mode: Normal Grading Mode

GEO 523 Cartography & GIS**3 Credit hours**

An introduction to cartography as the cornerstone of geographic information systems/science. Students will learn GIS-based map making, interpretation, and design. The course explores cartographic techniques to represent and visualize data.

Grade Mode: Normal Grading Mode**GEO 524 Transportation Geography****3 Credit hours**

A geographic analysis of transportation and its spatial organization. Concepts, models, and analytical methods related to traffic demand, network configuration, and allocation of transport facilities are covered.

Grade Mode: Normal Grading Mode**GEO 525 Climatology****4 Credit hours**

A study of elements of weather and climate, methods of climatic classification, and distribution and characteristics of world climatic regions.

Grade Mode: Normal Grading Mode**GEO 526 Principles of GIS****4 Credit hours**

This course allows incoming graduate students to obtain foundational GIS skills required to succeed in more specialized graduate level GIScience courses.

Grade Mode: Normal Grading Mode**GEO 529 Princ of GIS 2-Vector Analysis****4 Credit hours**

Continuation of GEO 526 Principles of GIS, including additional principles like data management, cartographic design, and geocoding; and vector analyses like spatial patterns analysis, spatial autocorrelation, and network analysis.

Pre-req: GEO 526 or GEO 530.**Grade Mode:** Normal Grading Mode**GEO 530 GIS-Raster Analysis****4 Credit hours**

GIS raster analysis, including local, neighborhood, and zonal operations, terrain analysis, building raster databases, distance modeling, and surface interpolation. Data collection and input from readily available sources, creation of custom data using GPS, and advanced spatial analysis using GIS.

Pre-req: GEO 526 or GEO 529.**Grade Mode:** Normal Grading Mode**GEO 531 Remote Sensing & Photogram****4 Credit hours**

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.

Pre-req: GEO 526 or GEO 529 or GEO 530.**Grade Mode:** Normal Grading Mode**GEO 532 Enterprise GIS****3 Credit hours**

Principles and techniques for planning, implementing, and managing Geographic Information Systems technologies in a firm or agency.

Grade Mode: Normal Grading Mode**GEO 533 GPS & Mobile Geospatial T****3 Credit hours**

An analysis of the design and deployment of Global Navigation Satellite Systems such as GPS (Global Positioning System) and their application to mobile map systems.

Grade Mode: Normal Grading Mode**GEO 534 Flood Hazards and GIS****3 Credit hours**

Application of principles of flood hazards preparation, disaster management, and mitigation using Geographic Information Systems (GIS).

Grade Mode: Normal Grading Mode**GEO 540 Spatial Statistics and GIS****4 Credit hours**

Statistical methods applied to problem solving in geography and using GIS for display and analysis. Primary focus on descriptive and inferential spatial statistics, mapping, and spatial analysis of data.

Grade Mode: Normal Grading Mode**GEO 554 Drones:Remote Sensing & GIS****3 Credit hours**

Learn FAA rules and safety procedures; prepare for Remote Pilot licensing exam; operate drones to collect remote sensing data; process imagery for analysis; integrate sUAS imagery with existing GIS data.

Grade Mode: Normal Grading Mode**GEO 560 Weather Analysis****4 Credit hours**

Introduction to reading weather maps and meteorological analysis techniques including satellite and radar image interpretation and numerical weather prediction.

Grade Mode: Normal Grading Mode**GEO 580 Special Topics****1-4 Credit hours**

Selected geography subjects to cover unusual geography topics not in the regular course offerings of the department.

Grade Mode: Normal Grading Mode**GEO 581 Special Topics****1-4 Credit hours**

Selected geography subjects to cover unusual geography topics not in the regular course offerings of the department.

Grade Mode: Normal Grading Mode**GEO 582 Special Topics****1-4 Credit hours**

Selected geography subjects to cover unusual geography topics not in the regular course offerings of the department.

Grade Mode: Normal Grading Mode**GEO 583 Special Topics****1-4 Credit hours**

Selected geography subjects to cover unusual geography topics not in the regular course offerings of the department.

Grade Mode: Normal Grading Mode**GEO 585 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GEO 586 Independent Study****1-4 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**GEO 587 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GEO 588 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GEO 601 Colloquium in Geography****1-3 Credit hours**

Speaker series introducing and sharing knowledge and experiences with geographic focus. Students are to learn from the knowledge and experience of faculty members, graduate students, alumni, and scholars.

Grade Mode: Credit/No Credit Grade Only**GEO 607 Economic Geography****3 Credit hours**

Topics in economic geography including industrial location, transportation systems, economic development, international trade relationships and globalism.

Grade Mode: Normal Grading Mode**GEO 615 Geographic Thought****3 Credit hours**

Survey of the history, literature, prominent individuals, and major paradigms in geography. Review of the major concepts in geography and an introduction to various methods of geographic inquiry.

Grade Mode: Normal Grading Mode

GEO 616 Geographical Research Methods 3 Credit hours

Students examine/practice four research methods in geography--qualitative, quantitative, GIScience, and field/lab methods--and learn to choose among them and use them for their own research and analysis.

Grade Mode: Normal Grading Mode

GEO 617 Seminars in Geography 1-3 Credit hours

Selected geography subjects/topics not included in the regular course offerings of the department are considered, using a seminar approach to learning.

Grade Mode: Normal Grading Mode

GEO 618 Seminars in Geography 1-3 Credit hours

Selected geography subjects/topics not included in the regular course offerings of the department are considered, using a seminar approach to learning.

Grade Mode: Normal Grading Mode

GEO 619 Seminars in Geography 1-3 Credit hours

Selected geography subjects/topics not included in the regular course offerings of the department are considered, using a seminar approach to learning.

Grade Mode: Normal Grading Mode

GEO 620 Problems in Environ Geog 3 Credit hours

Geographic aspects of world environmental problems including such topics as global warming, acid rain, energy supplies, population growth and soil depletion.

Grade Mode: Normal Grading Mode

GEO 623 Regions of North America 3 Credit hours

This seminar course examines regional geographies of North America with an emphasis on the research and methods for delineation of regions.

Grade Mode: Normal Grading Mode

GEO 631 Applied GIS Projects 3 Credit hours

Use of advanced GIS techniques to solve community-service research problems.

Pre-req: GEO 530.

Grade Mode: Normal Grading Mode

GEO 634 GIS Databases & Programming 3 Credit hours

Configuration and management of geospatial databases. Python scripting for analysis, geoprocessing, and workflow automation within a GIS environment.

Grade Mode: Normal Grading Mode

GEO 679 Applied Project 1-3 Credit hours

Grade Mode: Normal Grading Mode

GEO 681 Thesis 1-6 Credit hours

Grade Mode: Normal Grading Mode

GEO 690 Internship in Geography 1-6 Credit hours

Student will be employed a minimum of 300 hours with an agency approved by geography department. Faculty advisor and agency will consult periodically on student progress.

Attributes: No Textbook Required

Grade Mode: Credit/No Credit Grade Only

Historical Studies - Humanities**HIST 514 EUROPEAN DIPL HIST 1919-PRESEN 3 Credit hours****HIST 559 RECENT AMERICAN HISTORY 3 Credit hours****HIST 580 Ethnic Hist of West Virginia 3 Credit hours**

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.

Grade Mode: Normal Grading Mode

HIST 585 Coal Mine Life/Work/Culture 3 Credit hours

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.

HIST 600 Selected Topics/Hist Studies 1-6 Credit hours

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.

Grade Mode: Normal Grading Mode

HIST 601 Historic Preservation 3 Credit hours

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.

Grade Mode: Normal Grading Mode

HIST 602 SEMINAR IN HISTORICAL STUDIES 3 Credit hours**HIST 610 SELECTED TOPICS IN BRITISH HIS 1 Credit hour****HIST 620 Civil War & Reconstruction 3 Credit hours**

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.

HIST 650 THE IDEA OF THE AMER FRONTIER 3 Credit hours**HIST 680 SELECTED TOPICS IN W. VA. HIST 1 Credit hour****History****HIST 501 History of Appalachia 3 Credit hours**

This course will explore the historical and historiographical development of Appalachia and the economic, political, and cultural forces that have shaped the lives and communities of mountaineers.

Grade Mode: Normal Grading Mode

HIST 505 Amer Diplomacy 1900-Pres 3 Credit hours

American foreign relations in the 20th century. The gradual retreat from isolation in the period between World Wars I and II and modern American involvement in international commitments will be stressed.

Grade Mode: Normal Grading Mode

HIST 506 Tudor & Stuart England 3 Credit hours

A history of England under the Tudors and Stuarts, focusing primarily on demographic, social, cultural, and political developments.

Grade Mode: Normal Grading Mode

HIST 507 History of Sexuality 3 Credit hours

Examines the history of sexuality in North America in the context of cultural, legal, economic, political, and social history from the 16th century to the present.

Grade Mode: Normal Grading Mode

HIST 508 History of LGBT Peoples 3 Credit hours

A survey of gay, lesbian, bisexual and transgender history in the United States from the colonial period to the present.

Grade Mode: Normal Grading Mode

HIST 509 American Revolution 3 Credit hours

A varied view of the American Revolution and its impact on the American people.

Grade Mode: Normal Grading Mode

HST 513 Hist Old South 1492-1860**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HST 514 Am Civil War & Reconstruc****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HST 515 Hist New South 1877-Pres****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HST 517 U.S. West to 1900****3 Credit hours**

A study of the social, cultural, political, and economic history of the US West to 1900, along with West's place in our public memory.

Grade Mode: Normal Grading Mode**HST 521 Renaissance & Reformation****3 Credit hours**

The impact of the Renaissance upon esthetic, economic, and political developments especially 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.

Grade Mode: Normal Grading Mode**HST 524 US Science & Technology****3 Credit hours**

A study of the development and impact of science and technology in the U.S.

Grade Mode: Normal Grading Mode**HST 525 European Hist 1814-1914****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HST 527 The World at War****3 Credit hours**

This course explores the Second World War. It probes the nexus of diplomacy, politics, ideology, military strategy and operations, economics, and technological innovation that generated a truly global "total war."

Grade Mode: Normal Grading Mode**HST 528 Intel & Cult Hist Mod Europe****3 Credit hours**

A survey of the main currents in European thought and culture in the 19th and 20th centuries.

Grade Mode: Normal Grading Mode**HST 530 Soviet Russia and Beyond****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HST 531 America in the Gilded Age****3 Credit hours**

A study of America's transformation from a rural, agrarian nation into an urban, industrial world power, the final destruction of the American Indian, the settlement of the West, and the farmers' revolt.

Grade Mode: Normal Grading Mode**HST 534 The Vietnam War****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HST 535 Modern Japan****3 Credit hours**

Begins with an overview of nineteenth century Japan and stresses the twentieth century rise of Japan to the position of world power.

Grade Mode: Normal Grading Mode**HST 536 Modern China****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HST 537 Intro Public History****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HST 538 Stuff and Things in History****3 Credit hours**

This 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.

Grade Mode: Normal Grading Mode**HST 539 Modern China Through Film****3 Credit hours**

Through a combination of film, lectures, discussions, and writings, the course will show how China took its unique path to modernization.

Grade Mode: Normal Grading Mode**HST 540 West Virginia History****3 Credit hours**

An interdisciplinary study of the state, its people and its institutions within the national context.

Grade Mode: Normal Grading Mode**HST 543 20th Century US Women's Hist****3 Credit hours**

This course explores the lives and experiences of US women in the 20th century, but always with an eye on power.

Grade Mode: Normal Grading Mode**HST 546 Rise of Atlantic World****3 Credit hours**

This course considers the expansion of Western Europe, beginning in the early 1400s, to Africa, Latin America, and other parts of the Atlantic world.

Grade Mode: Normal Grading Mode**HST 547 Film and Empire****3 Credit hours**

This course explores the nature and importance of empire through the reading of key texts and the study of selected films.

Grade Mode: Normal Grading Mode**HST 548 British History in Film****3 Credit hours**

This course explores selected aspects of British history through the study of films and key texts.

Grade Mode: Normal Grading Mode**HST 549 World War I in Film****3 Credit hours**

This course explores the origins, course, and meaning of World War I (1914-1918) through the use of selected films and readings.

Grade Mode: Normal Grading Mode

HST 553 The Kennedy Assassination	3 Credit hours	HST 610 Readings in History	2-3 Credit hours
This course explores the events surrounding the assassination of President John F. Kennedy.		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.	
Grade Mode: Normal Grading Mode		Attributes: No Textbook Required	
HST 554 History of Ireland	3 Credit hours	Grade Mode: Normal Grading Mode	
This course covers the history of Ireland from the Middle Ages to the Present.		HST 632 Seminar in Reconstruction	3 Credit hours
Grade Mode: Normal Grading Mode		A reading and research course in which each student investigates a specific issue related to the reunification of the nation after the Civil War.	
HST 558 Spies in History	3 Credit hours	Grade Mode: Normal Grading Mode	
This course explores the role played by spies and espionage in modern history.		HST 633 Prob Amer Hist 1877-1917	3 Credit hours
Grade Mode: Normal Grading Mode		A research course in which the student probes a selected problem within the chronological span, 1877-1917.	
HST 580 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		HST 634 Prob Amer Hist Since 1917	3 Credit hours
HST 581 Special Topics	1-4 Credit hours	A research course in which a student probes a selected problem within the period since 1917.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
HST 582 Special Topics	1-4 Credit hours	HST 635 Oral/Local History Seminar	3 Credit hours
Grade Mode: Normal Grading Mode		The course examines the field of oral history. Students will apply oral history methodology and other primary source documentation in researching a local topic. ques, the interview, processing of tapes, release form, ethics, and how to write grant proposals.	
HST 583 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		HST 636 Seminar in Women's Hst	3 Credit hours
HST 585 Independent Study	1-4 Credit hours	A reading and research course in which the student investigates selected topics related to the history of women in America or Europe.	
Attributes: No Textbook Required		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		HST 640 Archives and Special Coll	3 Credit hours
HST 586 Independent Study	1-4 Credit hours	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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
HST 587 Independent Study	1-4 Credit hours	HST 650 Special Topics	1-4 Credit hours
Grade Mode: Normal Grading Mode		(PR: Permission of Instructor)	
HST 588 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		HST 651 Special Topics	1-4 Credit hours
HST 600 Methodology	3 Credit hours	(PR: Permission of Instructor)	
A research and writing seminar in which students are taught and must exhibit the skills and methodologies of practicing research historians.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		HST 679 Problem Report	1-3 Credit hours
HST 601 Tudor England 1485-1603	3 Credit hours	Grade Mode: Normal Grading Mode	
In this course students will examine in depth several selected themes in Tudor history through reading, class discussions, examinations, and a research paper.		HST 680 Public History Internship	1-6 Credit hours
Grade Mode: Normal Grading Mode		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.	
HST 602 Stuart England 1603-1714	3 Credit hours	Grade Mode: Normal Grading Mode	
An analysis of the Social, Intellectual, Economic, Cultural, and Political History of England in the Stuart Century.		HST 681 Thesis	1-6 Credit hours
Grade Mode: Normal Grading Mode		Attributes: No Textbook Required	
HST 605 Social & Econ Prob Am Col	3 Credit hours	Grade Mode: Normal Grading Mode	
A study of the English colonies America with emphasis on slavery, minorities, and social and economic change.			
Grade Mode: Normal Grading Mode			
HST 607 Prob Eur Hist 1890-1923	3 Credit hours		
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.			
Grade Mode: Normal Grading Mode			

Humanities

HUMN 530 Technology & the Humanities 3 Credit hours

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

Grade Mode: Normal Grading Mode

HUMN 560 Staff Development 1-4 Credit hours

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.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

HUMN 561 Staff Development 1-4 Credit hours

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.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

HUMN 562 Staff Development 1-4 Credit hours

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.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

HUMN 563 Staff Development 1-4 Credit hours

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.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

HUMN 600 Intro to Study in Humanities 3 Credit hours

Interdisciplinary core course addresses questions/concepts central to the humanities. Texts from philosophy, history, literature, the arts and in the sciences provide insights into selected historical periods. Open to non-degree students.

Grade Mode: Normal Grading Mode

HUMN 601 Literary Theory & Criticism 3 Credit hours

Core course introduces modern critical approaches, concepts and methods of research and scholarship in the field of literature. Open to non-degree students.

Grade Mode: Normal Grading Mode

HUMN 602 Historical Studies 3 Credit hours

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.

Grade Mode: Normal Grading Mode

HUMN 603 History & Theory of the Arts 3 Credit hours

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.

Grade Mode: Normal Grading Mode

HUMN 604 Expository Wrtng for Research 3 Credit hours

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.

Grade Mode: Normal Grading Mode

HUMN 605 Wstrn Trdtns/Contemp Cultures 3 Credit hours

Using primary materials from different cultural periods, as well as contemporary critical analysis, this core course explores epistemological questions that underlie conflicts between cultures. Open to non-degree students.

Grade Mode: Normal Grading Mode

HUMN 650 Selected Topics 1-9 Credit hours

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

HUMN 660 Independent Study in Human 1-3 Credit hours

Independent study in a particular area of interest. Open only to students near the end of their plans of study. Permission of program director is required

Grade Mode: Normal Grading Mode

HUMN 680 Independent Research Symposium 3 Credit hours

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 projects. S-U grade.

Grade Mode: Satisfactory/Unsatisfactory

HUMN 681 Independent Research Symposium 3 Credit hours

Prequisite: 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.

Grade Mode: Credit/No Credit Grade Only

Latin

LAT 503 Roman Comedy 3 Credit hours

(PR: 6 hours of Latin literature numbered 304 or above or equivalent)

Grade Mode: Normal Grading Mode

LAT 504 Roman Elegy: Prop & Tib 3 Credit hours

Close readings in Latin of selections from the elegies of Propertius and Tibullus.

Grade Mode: Normal Grading Mode

LAT 509 Roman Satire: Hor, Mart, Juv 3 Credit hours

Close readings in Latin of selections from the satires of Horace and Juvenal and the epigrams of Martial.

Grade Mode: Normal Grading Mode

LAT 510 Tacitus: Annals Agricola 3 Credit hours

(PR: 6 hours of Latin literature numbered 304 or above or equivalent)

Grade Mode: Normal Grading Mode

LAT 580 Special Topics 1-4 Credit hours

(PR: 6 hours of literature numbered 304 or above or equivalent and consent of instructor)

Grade Mode: Normal Grading Mode

LAT 581 Special Topics 1-4 Credit hours

(PR: 6 hours of literature numbered 304 or above or equivalent and consent of instructor)

Grade Mode: Normal Grading Mode

LAT 582 Special Topics 1-4 Credit hours

(PR: 6 hours of literature numbered 304 or above or equivalent and consent of instructor)

Grade Mode: Normal Grading Mode

LAT 583 Special Topics 1-4 Credit hours

(PR: 6 hours of literature numbered 304 or above or equivalent and consent of instructor)

Grade Mode: Normal Grading Mode

LAT 585 Independent Study 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 586 Independent Study 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 587 Independent Study 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 588 Independent Study 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 625 Hist & Dev Latin Language 3 Credit hours
 This course examines the linguistic, geographic, cultural and material concerns that influenced the development of the Latin Language.
Grade Mode: Normal Grading Mode

LAT 640 Advanced Prose Comp 3 Credit hours
 A close study of advanced Latin grammar and style through composition in Latin.
Grade Mode: Normal Grading Mode

LAT 660 Special Author Lat Lit 3 Credit hours
 A detailed study in Latin of a single author. Special attention will be given to style, genre, literary and cultural contexts, and the study of secondary sources on the author.
Grade Mode: Normal Grading Mode

LAT 661 Special Author in Lat Lit 3 Credit hours
 A detailed study in Latin of a single author. Special attention will be given to style, genre, literary and cultural contexts, and study of secondary sources on the author.
Grade Mode: Normal Grading Mode

LAT 662 Special Author in Lat Lit 3 Credit hours
 A detailed study in Latin of a single author. Special attention will be given to style, genre, literary and cultural contexts, and study of secondary sources on the author.
Grade Mode: Normal Grading Mode

LAT 663 Special Author in Lat Lit 3 Credit hours
 A detailed study in Latin of a single author. Special attention will be given to style, genre, literary and cultural contexts, and study of secondary sources on the author.
Grade Mode: Normal Grading Mode

LAT 664 Special Author Lat Lit 3 Credit hours
 A detailed study in Latin of a single author. Special attention will be given to style, genre, literary and cultural contexts, and study of secondary sources on the author.
Grade Mode: Normal Grading Mode

LAT 665 Special Author Lat Lit 3 Credit hours
 A detailed study in Latin of a single author. Special attention will be given to style, genre, literary and cultural contexts, and study of secondary sources on the author.
Grade Mode: Normal Grading Mode

LAT 681 Thesis 1-6 Credit hours
Grade Mode: Normal Grading Mode

LAT 682 Special Topics Lat Lit 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 683 Special Topics in Latin Lit 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 685 Independent Study in Lat Lit 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 686 Independent Study in Lat Lit 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 687 Independent Study in Lat Lit 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 688 Independent Study in Lat Lit 1-4 Credit hours
Grade Mode: Normal Grading Mode

Leadership Studies

LS 510 Principalship:Role & Tasks 3 Credit hours
 The Principalship is the study of school management as it relates to ethical behavior, and to support services, information systems, fiscal matters, and facility utilization and maintenance.
Grade Mode: Normal Grading Mode

LS 515 Curric and Instr Leadership 3 Credit hours
 The development and/or upgrading of supervisory practices in the areas of instructional leadership, instructional program development, instructional strategies, implementation and evaluation, and human relations.
Grade Mode: Normal Grading Mode

LS 520 Admin Elem Mdle & Sec Schools 3 Credit hours
 An investigation of the effects of the unique physical, social, mental, and moral characteristics of pre, early, and adolescent children on educational processes, organizations, and personnel.
Grade Mode: Normal Grading Mode

LS 530 Human Rel Skills for Leaders 3 Credit hours
 This course assesses and develops students' knowledge and skills in interpersonal relations and ethical practices. It provides structured experiences in group processes, verbal and non-verbal communications leadership styles, and team building.
Grade Mode: Normal Grading Mode

LS 550 Schools as Systems 3 Credit hours
 Assesses and develops student's knowledge and skills in change strategies, school cultures, systems theory, and understanding of the school in relation to other systems, agencies, and organizations.
Grade Mode: Normal Grading Mode

LS 558 School Law and the Teacher 3 Credit hours
Grade Mode: Normal Grading Mode

LS 561 Professional Development 1-4 Credit hours
 These courses and activities are designed to meet the specific in-service needs of public school administrators. Credit in these courses may be used for certificate renewal and salary upgrading but not in degree programs.

Attributes: Not Degree Applicable
Grade Mode: Credit/No Credit Grade Only

LS 562 Professional Development 1-4 Credit hours
 These courses and activities are designed to meet the specific in-service needs of public school administrators. Credit in these courses may be used for certificate renewal and salary upgrading but not in degree programs.

Attributes: Not Degree Applicable
Grade Mode: Credit/No Credit Grade Only

LS 563 Staff Development 1-4 Credit hours
 These courses and activities are designed to meet the specific in-service needs of public school administrators. Credit in these courses may be used for certificate renewal and salary upgrading but not in degree programs.

Attributes: Not Degree Applicable
Grade Mode: Credit/No Credit Grade Only

LS 580 Special Topics in Leadership**1-9 Credit hours**

To provide the master's level student an opportunity to examine selected issues in leadership and to apply their findings to the field of study.

Grade Mode: Normal Grading Mode

LS 585 Independent Study**1-4 Credit hours**

Approval of Program Director and Permission of chair. Student must have a GPA of 3.0 to take class.

Grade Mode: Normal Grading Mode

LS 586 Independent Study**1-4 Credit hours**

Approval of Program Director and Permission of chair. Student must have a GPA of 3.0 to take class.

Grade Mode: Normal Grading Mode

LS 587 Independent Study**1-4 Credit hours**

Approval of Program Director and Permission of chair. Student must have a GPA of 3.0 to take class.

Grade Mode: Normal Grading Mode

LS 588 Independent Study**1-4 Credit hours**

Approval of Program Director and Permission of chair. Student must have a GPA of 3.0 to take class.

Grade Mode: Normal Grading Mode

LS 600 School Personnel Administra**3 Credit hours**

This course offers an examination of personnel functions including recruitment, selection, orientation, evaluation, and retention with particular emphasis on staff development.

Grade Mode: Normal Grading Mode

LS 604 CTE Leadership Studies I**3 Credit hours**

Leadership preparation for career and technical education programs located at technical centers and/or high schools. Students will study career and technical education policies, funding sources, and accountability within Simulated Workplace.

Grade Mode: Normal Grading Mode

LS 606 Plan Res & Eval for Sch Lead**3 Credit hours**

This course is designed to avail potential school administrators with an understanding of planning strategies, academic research, action research, and program evaluation methods, with the intent of their being able to write a cogent, data-based school improvement plan.

Grade Mode: Normal Grading Mode

LS 608 CTE Leadership Studies II**3 Credit hours**

Leadership preparation for career and technical education programs located at technical centers and/or high schools. Students will study career/technical education initiatives, importance of advisory committees, and economics of Simulated Workplaces.

Pre-req: LS 604 with a minimum grade of D.

Grade Mode: Normal Grading Mode

LS 610 Leadership for Sch Improve**3 Credit hours**

Leadership preparation for developing and implementing a shared vision and strategic plans focused on teaching and learning, implementing change, applying leadership theory and acting with understanding of society's influences.

Grade Mode: Normal Grading Mode

LS 612 Educ Tech for Administrators**3 Credit hours**

This course addresses the role of the principal in the development and implementation of school curriculum. This includes developmentally appropriate curriculum design, special education curriculum and modifications, the integration of technology, and authentic assessment.

Grade Mode: Normal Grading Mode

LS 615 Leadership in Public Sector**3 Credit hours**

This course will enable public sector leaders to better understand the perspectives they bring to the setting, define and evaluate personal and organizational goals, and develop strategies to achieve shared goals.

Grade Mode: Normal Grading Mode

LS 616 Higher Ed Governance**3 Credit hours**

This course is designed to develop an understanding of the structure of governance of multi-campus public higher education systems.

Grade Mode: Normal Grading Mode

LS 617 Intro Stu Pers Adm/Higher Ed**3 Credit hours**

This course surveys the purpose and functions of student personnel administration in higher educational institutions and the administrative procedures developed to accomplish these purposes.

Grade Mode: Normal Grading Mode

LS 618 History of Higher Education**3 Credit hours**

This course will present a historical overview of the factors that influence the development of higher education in America.

Grade Mode: Normal Grading Mode

LS 621 Pub Policy Analysis Higher Ed**3 Credit hours**

This course will introduce students to the process of developing federal and state public policy for higher education and examine legislation related to governance, finance, and oversight.

Grade Mode: Normal Grading Mode

LS 625 Human Resources Management**3 Credit hours**

This course develops knowledge of the major functions and tasks necessary for the development of human resources.

Grade Mode: Normal Grading Mode

LS 626 Fundraising Management**3 Credit hours**

This course will provide students with an overview of the fundamentals of fundraising including such vehicles as major campaigns, donor research, management practices, and ethical issues.

Grade Mode: Normal Grading Mode

LS 628 Nonprofit & Public Sector Orgs**3 Credit hours**

Nonprofit & public sector organizations constitute a significant part of every community and this course is designed to examine the major leadership issues they encounter.

Grade Mode: Normal Grading Mode

LS 630 The School and the Community**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

LS 632 Human Rel in Public Sec**3 Credit hours**

This course is designed to assist leaders in the public sector to establish and maintain positive relationships with the organization's staff and volunteers, as well as with its constituents.

Grade Mode: Normal Grading Mode

LS 635 Organizational Theory**3 Credit hours**

This course analyzes leadership theories and their application to leadership and management in nonprofit and public sector organizations.

Grade Mode: Normal Grading Mode

- LS 640 Legal Issues NPO & Public** **3 Credit hours**
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 CEO's, staff, governing boards.
Grade Mode: Normal Grading Mode
- LS 645 Comm Collaborative Plan Mgmt** **3 Credit hours**
Students will be provided with the opportunity to analyze the nature of collaboration among state, local, 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.
Grade Mode: Normal Grading Mode
- LS 647 Adult & Continuing Educa** **3 Credit hours**
This course develops an understanding of the principles, concepts, and processes involved in planning learning experiences for adults within the framework of higher education.
Grade Mode: Normal Grading Mode
- LS 650 Internship-School Management 1** **3 Credit hours**
Grade Mode: Normal Grading Mode
- LS 655 Externship** **1-9 Credit hours**
This is a field-based course designed for practicing professionals.
Grade Mode: Normal Grading Mode
- LS 660 Capstone: School Management** **3 Credit hours**
Grade Mode: Normal Grading Mode
- LS 661 Internship-Instr Supervision 2** **3 Credit hours**
Grade Mode: Normal Grading Mode
- LS 675 Legal and Policy Issues** **3 Credit hours**
This course examines the principal's role and responsibility related to law and administrative policy.
Grade Mode: Normal Grading Mode
- LS 685 Capstone: Portfolio Assessment** **3 Credit hours**
Training and assessment experiences for students seeking initial certification as a school principal.
Grade Mode: Normal Grading Mode
- LS 690 Leadership Capstone Course** **3 Credit hours**
This course represents a culminating experience and an opportunity to demonstrate a broad mastery of learning across the respective program curriculum.
Grade Mode: Normal Grading Mode
- LS 691 The Attendance Director** **3 Credit hours**
This course develops the administrative skills required for managing policies, programs, and activities related to the position of public school social worker or attendance director.
Grade Mode: Normal Grading Mode
- LS 692 Capstone: School Social Serv** **3 Credit hours**
This course provides pre-service training and assesment for students seeking licensure as a public school social worker/ attendance director.
Pre-req: LS 691.
Grade Mode: Normal Grading Mode
- LS 693 Sch Law for Support Personnel** **3 Credit hours**
This course provides the student with a working knowledge of school law and other legal matters as it pertains to the attendance director. The focus of this course is on those laws dealing with mandatory attendance and juvenile matters. (PR: Admission into the Social Services/Attendance Program)
Grade Mode: Normal Grading Mode
- LS 700 Superintendency** **3 Credit hours**
This course examines the roles, relationships, behaviors and competencies which characterize school superintendents and their staffs.
Grade Mode: Normal Grading Mode
- LS 701 Internship-Begng Supertndncy** **3 Credit hours**
Grade Mode: Normal Grading Mode
- LS 704 LDSH SP POP** **3 Credit hours**
This course identifies and explains the laws and policies that service students with special needs. School leaders will learn to apply these laws to ensure they meet students' needs while making the best decisions for their school.
Grade Mode: Normal Grading Mode
- LS 705 Administration Theory** **3 Credit hours**
This course analyzes administrative theories and their application to organizational leadership and management.
Grade Mode: Normal Grading Mode
- LS 707 Ethical Theory** **3 Credit hours**
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.
Grade Mode: Normal Grading Mode
- LS 708 Comparative Study Comm Coll** **3 Credit hours**
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.
Grade Mode: Normal Grading Mode
- LS 710 Principles of Leadership** **3 Credit hours**
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.
Attributes: Online Course
Grade Mode: Normal Grading Mode
- LS 711 School Leadership Practices 1** **3 Credit hours**
Grade Mode: Normal Grading Mode
- LS 712 School Leadership Practices 2** **3 Credit hours**
Grade Mode: Normal Grading Mode
- LS 714 Higher Ed Admin** **3 Credit hours**
This course is a survey of higher education with attention to administrative functions at the campus and state levels.
Grade Mode: Normal Grading Mode
- LS 715 Computer & School Management** **3 Credit hours**
Grade Mode: Normal Grading Mode
- LS 716 Higher Ed Governance** **3 Credit hours**
This class will review different models for governing public higher education at a system level and will examine the changing nature of higher education.
Grade Mode: Normal Grading Mode
- LS 717 Intro Stu Pers Adm/Higher Ed** **3 Credit hours**
This course surveys the purpose and functions of student personnel administration in higher educational institutions and the administrative procedures developed to accomplish these purposes.
Grade Mode: Normal Grading Mode

LS 718 Hist of Higher Ed**3 Credit hours**

This course is designed to provide the student with an understanding of the historical development of American higher education. It will examine past and future issues that have or may affect higher education.

Grade Mode: Normal Grading Mode**LS 720 Financial Models in Education****3 Credit hours**

This course examines concepts in the financing and economics of education in multiple education environments.

Grade Mode: Normal Grading Mode**LS 724 Organizational Analysis****3 Credit hours**

This course is an interdisciplinary approach to the study of organizational structure, relationships, and functions focusing on problems and alternatives for solving them.

Grade Mode: Normal Grading Mode**LS 726 Institutional Adv in High Ed****3 Credit hours**

Students will understand the broad area of institutional advancement, including major campaigns, donor research, donor recognition programs, restricted gifts, and so forth.

Grade Mode: Normal Grading Mode**LS 730 Educational Facility Planning****3 Credit hours**

This course teaches the systematic collection and utilization of data in planning for educational facilities. (PR: Principal or supervisor certificate or consent)

Grade Mode: Normal Grading Mode**LS 740 Legal Issues in Education****3 Credit hours**

This course examines various legal issues in education in multiple education environments.

Grade Mode: Normal Grading Mode**LS 747 Admin of Comm Colleges****3 Credit hours**

An analysis of community college governance, structure, functions, and relationship with its respective community and local/state government.

Grade Mode: Normal Grading Mode**LS 755 Internship-Admin of Higher Ed****3 Credit hours**

This course provides a field experience in higher education administration. (PR: Consent)

Grade Mode: Normal Grading Mode**LS 756 Current Issues in Leadership****3 Credit hours**

The course focuses on current and emerging problems of leadership among varied organizational types.

Grade Mode: Normal Grading Mode**LS 760 Politics of Education****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**LS 762 Higher Ed Politics****3 Credit hours**

This course is designed to make students familiar with the basic concepts and tools of politics. The course will apply these political concepts to higher education.

Grade Mode: Normal Grading Mode**LS 764 Adv Research I****3 Credit hours**

This class for doctoral candidates will develop a foundation in research methods, research ethics, and research skills.

Grade Mode: Credit/No Credit Grade Only**LS 765 Adv Res II in Lead Studies****3 Credit hours**

This is an advanced research course directed toward the preparation of a thesis or dissertation. (PR: Consent)

Grade Mode: Credit/No Credit Grade Only**LS 770 Practicum****3 Credit hours**

This is a highly individualized cooperative educational administration experience between the college and another public agency. (PR: Consent)

Grade Mode: Normal Grading Mode**LS 771 School District Leadership 1****3 Credit hours**

This is an individualized cooperative field experience in district level school administration. (PR: Consent)

Grade Mode: Normal Grading Mode**LS 772 School District Leadership 2****3 Credit hours**

This is an individualized cooperative field experience in district level school administration. (PR: Consent)

Grade Mode: Normal Grading Mode**LS 775 Seminar****3 Credit hours**

This course is a concentrated analysis of current problems in educational administration. (PR: Consent)

Grade Mode: Normal Grading Mode**LS 780 Special Topics****1-6 Credit hours**

This course requires study, reading and research in an approved area of education and supervision. (PR: Consent)

Grade Mode: Normal Grading Mode**LS 785 Externship****1-9 Credit hours**

This is a field based program designed for practicing administrators. (PR: Consent)

Grade Mode: Normal Grading Mode**LS 787 Cont First Amendment Issues****3 Credit hours**

This course will examine contemporary first amendment issues as they relate to education in public education and higher education.

Grade Mode: Normal Grading Mode**LS 790 Dissertation Research****1-9 Credit hours****Grade Mode:** Normal Grading Mode**LS 792 MU Research Colloquium****3 Credit hours****Grade Mode:** Normal Grading Mode**LS 797 Dissertation Research****1-9 Credit hours**

Dissertation research is the purpose of this course. (PR: Consent)

Grade Mode: Credit/No Credit Grade Only**Literary Studies - Humanities****LITS 510 Comparative Approaches to Lit****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**LITS 520 Creative Wrtnng/Pract Criticism****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**LITS 522 Selected Topics in Writing****3 Credit hours**

The study of selected topics in writing (e.g., the expository essay, screen-writing, techniques of editing, etc.)

Grade Mode: Normal Grading Mode

LITS 540 Studies in Mythology/Folklore 1-6 Credit hours

Selected topics in mythology and folklore (e.g., folk drama, folk tale, folk art). May be repeated for a maximum of 6 hours.

Grade Mode: Normal Grading Mode

LITS 580 Literature for Teachers 3 Credit hours

Study and appreciation of selected works with special reference to the high school curriculum.

Grade Mode: Normal Grading Mode

LITS 600 Sel Topics in Literary Studies 1-6 Credit hours

Grade Mode: Normal Grading Mode

LITS 615 Modern Southern Literature 3 Credit hours

Course surveys important figures in Southern literature since the Southern Literary Renaissance of the 1920's and the Agrarian and Fugitive Movements.

Grade Mode: Normal Grading Mode

LITS 625 Shakespeare:Text,Stage & Film 3 Credit hours

Focusing on selected Shakespearean plays, this course considers recent critical interpretations and explores how these have influenced stage and film productions. Contemporary adaptations of the plays will also be considered.

Grade Mode: Normal Grading Mode

LITS 636 Lit/Soc in Late 18 C England 3 Credit hours

This course examines biographies, social, political and scientific writing, literary texts and the arts from 1750- 1800 to understand English culture and the eighteenth- century world.

Grade Mode: Normal Grading Mode

LITS 660 Modern Irish Novel 3 Credit hours

This course examines 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.

Grade Mode: Normal Grading Mode

LITS 662 20th C Irish Drama 3 Credit hours

From the founding of the Abbey Theatre to the present, this course traces the development of Irish drama as art form and culture artifact.

Grade Mode: Normal Grading Mode

LITS 670 Contemporary World Fiction 3 Credit hours

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 presented.

Grade Mode: Normal Grading Mode

Management

MGT 500 Analytic Methods & Tech 3 Credit hours

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 under- graduate background in mathematics.

Grade Mode: Normal Grading Mode

MGT 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

MGT 601 Quant Methods-Business 3 Credit hours

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: Full MBA Admission or Permission of MBA Director)

Pre-req: MGT 500.

Grade Mode: Normal Grading Mode

MGT 610 OPERATIONS MANAGEMENT 3 Credit hours

Grade Mode: Normal Grading Mode

MGT 611 Military Management I 3-9 Credit hours

MGT 611 concerns the theory and practice of a military officer's management plans to attain outcomes consistent with the organization's mission and goals including strategy formulation, implementation and control.

Grade Mode: Credit/No Credit Grade Only

MGT 612 Military Management II 3-9 Credit hours

MGT 612 concerns the theory and practice of a military officer's strategic human resource management plans to attain outcomes consistent with the organization's mission and goals including strategy formulation, implementation and control.

Grade Mode: Credit/No Credit Grade Only

MGT 613 Military Management III 3-9 Credit hours

MGT 613 concerns the theory and practice of a military officer's quantitative and analytical management plans to attain outcomes consistent with the organization's mission and goals including strategy formulation, implementation and control.

Grade Mode: Credit/No Credit Grade Only

MGT 620 Human Resource Management 3 Credit hours

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: MGT 320 or MKT 511; and GSM admission or permission of GSM academic advisor)

Pre-req: MKT 511.

Grade Mode: Normal Grading Mode

MGT 630 Mgt & Supervisory Skills Devel 3 Credit hours

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)

Pre-req: MGT 672 or MGT 503G.

Grade Mode: Normal Grading Mode

MGT 650 Special Topics 1-4 Credit hours

PR: Permission of the division head and full M.B.A. admission or permission of GSM academic advisor.

Pre-req: MGT 503 or MGT 503G.

Grade Mode: Normal Grading Mode

MGT 651 Special Topics 1-3 Credit hours

PR: Permission of the division head and full M.B.A. admission or permission of GSM academic advisor.

Grade Mode: Normal Grading Mode

MGT 655 Management of Small Business	3 Credit hours	MGT 680 Entrepreneurship	3 Credit hours
Pre-req: MGT 501 or MGT 501G.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MGT 660 Independent Study	1-4 Credit hours	MGT 681 Thesis	1-6 Credit hours
Independent study of a specific nature under the		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MGT 692 Ethics/Global Aspects Bus	3 Credit hours
MGT 665 MANAGEMENT INFORMATION SYSTEMS	3 Credit hours	An examination of the Manager's social, ethical, and environmental responsibilities, not only to their domestic constituents, but also in the increasingly competitive international arena.	
Grade Mode: Normal Grading Mode		Pre-req: MGT 672.	
MGT 670 Management Consulting Skills	3 Credit hours	Grade Mode: Normal Grading Mode	
Pre-req: MGT 672 or MGT 503G.		MGT 696 Admin Policy & Strategy	3 Credit hours
Grade Mode: Normal Grading Mode		Capstone graduate business course for Master of Science students (HRM & HCA). Emphasis on policy and strategy issues in a service and/or public setting instead of within a "for-profit" environment.	
MGT 671 Business Admin Internship	3 Credit hours	Grade Mode: Normal Grading Mode	
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)		MGT 698 Independent Study in Mgmt	1-3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MGT 672 Organizational Behavior	3 Credit hours	MGT 699 Strategic Management	3 Credit hours
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 the organizational behavior and theory.		The study and application of top management's plan to attain outcomes consistent with the organization's mission and goals, including; strategy formulation, implementation and control. (PR: Permission of GSM academic advisor)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MGT 673 Prob Personnel Management	3 Credit hours	MGT 749 RESEARCH PAPER	3 Credit hours
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; role of government in manpower administration.		Grade Mode: Normal Grading Mode	
Pre-req: MGT 672 or MGT 503G.		MGT 797 THESIS	6 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MGT 674 Prod/Operation Management	3 Credit hours	MGT 799 Business Policy	3 Credit hours
The study of operations management methods used in production, manufacturing, services and other business operations. Includes project management, capacity planning and transportation problems. (PR: MGT 601 and Full MBA Admission or Permission of MBA Director)		Grade Mode: Normal Grading Mode	
Pre-req: MGT 601.		Philosophy	
Grade Mode: Normal Grading Mode		PHL 500 Ancient Philosophy	3 Credit hours
MGT 675 Prob Labor-Mgt Relations	3 Credit hours	Advanced study of major philosophers drawn from the ancient Greek and Roman period.	
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.		Grade Mode: Normal Grading Mode	
Pre-req: MGT 672 or MGT 503G.		PHL 501 Modern Philosophy	3 Credit hours
Grade Mode: Normal Grading Mode		Advanced study of major movements in philosophy from the 17th century on, movements such as rationalism, empiricism, idealism, and existentialism. (PR: Any philosophy course)	
MGT 676 Organization Theory Design	3 Credit hours	Grade Mode: Normal Grading Mode	
Analysis of organizational systems and subsystems incorporating, traditional, behavioral, and situational approaches to organizational and work unit design. Emphasizes environmental interface and interdependencies as function of internal systems phenomena.		PHL 520 Metaphysics	3 Credit hours
Pre-req: MGT 672 or MGT 503G.		A study of what Aristotle called "first philosophy" or the study of being -- later called metaphysics.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MGT 677 Supply Chain Management	3 Credit hours	PHL 521 Philosophy of Knowledge	3 Credit hours
This course is a study of efforts to optimize actions of manufacturers, suppliers, distributors, retailers, and other selected modes in their endeavors to serve the ultimate customers.		Advanced study of the nature and possibility of knowledge. (PR: Any philosophy course)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
		PHL 551 Phil of History & Culture	3 Credit hours
		Ancient and modern theories of the meaning and consequence of history and culture.	
		Grade Mode: Normal Grading Mode	

PHL 555 Philosophy of Religion**3 Credit hours**

Theories of the nature and functions of religion, including the meaning of religious language and problems of belief.

Grade Mode: Normal Grading Mode

PHL 560 Phil of Politics & Power**3 Credit hours**

Advanced study of the significance or the place in human reality of political organization, negotiation, strategy and power. (PR: Any philosophy course)

Grade Mode: Normal Grading Mode

PHL 565 Existential Philosophy**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

PHL 570 Philosophy of Logic**3 Credit hours**

Advanced study of the nature of logic: whether logic is possible at all, how far it applies, and whether and how there can be conflicting logics. (PR: Any philosophy course)

Grade Mode: Normal Grading Mode

PHL 580 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

PHL 581 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

PHL 582 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

PHL 583 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

PHL 585 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

PHL 586 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

PHL 587 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

PHL 588 Independent Study**1-4 Credit hours**

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

PHL 599 Humanities Seminar**3 Credit hours**

Grade Mode: Normal Grading Mode

Political Science**PSC 502 Politics of the Undead****3 Credit hours**

A graduate survey of political thought, international relations theory, and political economy through the pop cultural lens of vampires, zombies, and other undead creatures.

Grade Mode: Normal Grading Mode

PSC 503 War and Popular Culture**3 Credit hours**

A graduate survey of evolving depictions of political violence in film, television, graphic novels, video games, and popular music.

Grade Mode: Normal Grading Mode

PSC 505 UN & Global Organizations**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

PSC 506 International Relations**3 Credit hours**

Study of major issues in world politics, with emphasis on theoretical approaches, problems of war and peace, and contemporary trends.

Grade Mode: Normal Grading Mode

PSC 508 Middle Eastern Politics**3 Credit hours**

Study of the Arab States and such nations as Israel, Iran and Turkey in the contemporary setting.

Grade Mode: Normal Grading Mode

PSC 509 Western Democratic Politics**3 Credit hours**

Study of such nations as Canada and those of Western Europe, particularly Great Britain and France.

Grade Mode: Normal Grading Mode

PSC 510 Post Soviet Politics**3 Credit hours**

Study of the Soviet Union and Eastern Europe.

Grade Mode: Normal Grading Mode

PSC 511 Latin American Politics**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

PSC 512 Internat Political Economy**3 Credit hours**

This course will examine the evolution and structure of the global economic system with emphasis on the development of the Liberal International Economic Order.

Grade Mode: Normal Grading Mode

PSC 515 International Law**3 Credit hours**

Study of theories, origins, sources, development, present state, and trends of international law as a factor in various aspects of international politics.

Grade Mode: Normal Grading Mode

PSC 516 Politics of Development**3 Credit hours**

A survey of major theories development and modernization and issues confronting developing nations around the world.

Grade Mode: Normal Grading Mode

PSC 517 Homeland Security & Civil Lib**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

PSC 518 American Political Thought II**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

PSC 519 Women and Pol Thought**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

PSC 520 Cur World/Regional Issues**3 Credit hours**

An intensive study of specific world or regional problems, such as the politics of world hunger. The role of multi-national corporations, imperialism, third world communist movements, etc.

Grade Mode: Normal Grading Mode

PSC 521 American Political Thought I 3 Credit hours

Study of the development and influence of American Political Thought with an emphasis on the linkage of ideas to political and economic forces.

Grade Mode: Normal Grading Mode

PSC 523 American Foreign Policy 3 Credit hours

The study of descriptive, analytical, and normative aspects of American foreign policy with emphasis on contemporary problems and issues.

Grade Mode: Normal Grading Mode

PSC 524 Comparative Foreign Pol 3 Credit hours

Application of the comparative method to foreign policy decision-making and outputs. Comparisons within or between geographic regions.

Grade Mode: Normal Grading Mode

PSC 525 Classical Political Thought 3 Credit hours

Selective 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.

Grade Mode: Normal Grading Mode

PSC 526 Modern Political Thought 3 Credit hours

Selective 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, Mill, and Marx.

Grade Mode: Normal Grading Mode

PSC 527 Shapers and Definers 3 Credit hours

A study of political leaders who have shaped and defined the American constitutional tradition. A study of political leaders who have shaped and defined the American constitutional tradition.

Grade Mode: Normal Grading Mode

PSC 528 Islam and Politics 3 Credit hours

A study of Islamic political ideas, practices and institutions and their impact on the rise and development of contemporary Islamic movements, organizations and states.

Grade Mode: Normal Grading Mode

PSC 529 Politics of Confl & Rev 3 Credit hours

Study of major theories of conflict and revolution with emphasis on cross-national explanations and outcomes.

Grade Mode: Normal Grading Mode

PSC 530 Political Ideologies 3 Credit hours

This course examines modern political ideologies including Liberalism, Conservatism, Anarchism, Socialism, Fascism, and Environmentalism with emphasis on the original texts.

Grade Mode: Normal Grading Mode

PSC 531 Politics of Global Terrorism 3 Credit hours

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. Draws upon both classic and contemporary sources of political theory to address basic political issues inherent in public problems.

Grade Mode: Normal Grading Mode

PSC 532 Nonprofit Management 3 Credit hours

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.

Grade Mode: Normal Grading Mode

PSC 533 Public Adm & Policy Dev 3 Credit hours

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.

Grade Mode: Normal Grading Mode

PSC 536 The American Judiciary 3 Credit hours

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.

Grade Mode: Normal Grading Mode

PSC 540 Power In American Society 3 Credit hours

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.

Grade Mode: Normal Grading Mode

PSC 542 Politics and Welfare 3 Credit hours

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.

Grade Mode: Normal Grading Mode

PSC 544 Dictatorship & Democracy 3 Credit hours

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.

Grade Mode: Normal Grading Mode

PSC 545 Environmental Politics 3 Credit hours

This 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.

Grade Mode: Normal Grading Mode

PSC 550 Administrative Law 3 Credit hours

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.

Grade Mode: Normal Grading Mode

PSC 552 Public Personnel Admin 3 Credit hours

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.

Grade Mode: Normal Grading Mode

PSC 553 Government Budgetary Admin 3 Credit hours

Study of organization, administration, and accountability in the management of public funds, with emphasis on the political decision-making processes of budget formulation, representation, and execution.

Grade Mode: Normal Grading Mode

PSC 554 Politics of the Workplace 3 Credit hours

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.

Grade Mode: Normal Grading Mode

PSC 560 Civil Rights & Liberties	3 Credit hours	PSC 600 Research Design	3 Credit hours
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.		Philosophy of Science as applied to empirical political inquiry; elements of good research design, measurement theory, writing and critiquing research reports. (PR: PSC 211 or Permission)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSC 561 Urban Prob & Pub Policy	3 Credit hours	PSC 601 Reading-Political Science	2-3 Credit hours
Study of policy problems of metropolitan areas in terms of structures, alternatives, and outcomes.		Readings to meet the needs and interests of individual students.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSC 566 Appalachian Politics	3 Credit hours	PSC 604 Data Analysis	3 Credit hours
Explores Appalachia as both a geographical region and a political construct, focusing on how politics shapes regional identity and the region's relationship to the United States.		A study of quantitative methods used in empirical research with an emphasis upon applied statistical analysis; writing and critiquing research reports.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSC 578 Politics and Video Games	3 Credit hours	PSC 606 Seminar Judicial Politics	3 Credit hours
An exploration of the power dynamics and politics at play in video games, the video game industry, and gaming culture.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSC 609 Sem Internat Relations Theory	3 Credit hours
PSC 580 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
To offer a course on some special topic which is not adequately treated in the regular course offerings.		PSC 611 Am Legislative Process	3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSC 581 Special Topics	1-4 Credit hours	PSC 612 Sem Am Executive Process	3 Credit hours
To offer a course on some special topic which is not adequately treated in the regular course offerings.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSC 614 Sem Comp Political System	3 Credit hours
PSC 582 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
To offer a course on some special topic which is not adequately treated in the regular course offerings.		PSC 616 Public Adm Scope and Practice	3 Credit hours
Grade Mode: Normal Grading Mode		Orientation to the field of Public Administration, ethics, professional standards and skills. Review of foundations, theories, and scope. Study of public management heritage and current trends and issues.	
PSC 583 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
To offer a course on some special topic which is not adequately treated in the regular course offerings.		PSC 618 Sem Public Administration	3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSC 584 Constitutional Law	3 Credit hours	PSC 620 Comparataive Public Admin	3 Credit hours
Introduction to the principles of American constitutional law and analysis of constitutional issues, emphasizing leading Supreme Court cases.		This course will serve as an introduction to the comparative study of public administration. Students will be introduced to several key areas of comparative administration research, including different methods used for analysis.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSC 585 Independent Study	1-4 Credit hours	PSC 621 Urban Administration	3 Credit hours
These numbers are reserved for tutorials, directed and independent research, problem reports, etc.		Principles and methods of urban administration in the U.S.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSC 586 Independent Study	1-4 Credit hours	PSC 622 Constitutions	3 Credit hours
These numbers are reserved for tutorials, directed and independent research, problem reports, etc.		A study of constitutions, their duration, distribution of power, contribution to a stable government and the rule of law. While the course is comparative, major emphasis is on the United States.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSC 587 Independent Study	1-4 Credit hours	PSC 629 Seminar Political Thought	3 Credit hours
These numbers are reserved for tutorials, directed and independent research, problem reports, etc.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSC 648 Sem State Govt & Politics	3 Credit hours
PSC 588 Independent Study	1-4 Credit hours	West Virginia government and political problems will receive special attention although other states may be considered.	
These numbers are reserved for tutorials, directed and independent research, problem reports, etc.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSC 650 Seminar	3 Credit hours
		Grade Mode: Normal Grading Mode	
		PSC 651 Seminar	3-6 Credit hours
		Grade Mode: Normal Grading Mode	

PSC 652 Sem Political Behavior **3 Credit hours**
Grade Mode: Normal Grading Mode

PSC 660 Sem in Policy Analysis **3 Credit hours**
 Development of theoretical and methodological skills in the analysis of public problems and the use of policy in problem solving.
Grade Mode: Normal Grading Mode

PSC 675 Legislative Internship **6 Credit hours**
 Intensive work experience in the West Virginia legislative processes coupled with a seminar involving directed reading and the preparation of a paper. This is a cooperative pro- gram with West Virginia University and the Office of Legis- lative Services with only selected students participating.

Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

PSC 676 Internship / Practicum **3-6 Credit hours**
 Supervised internship / practicum where students apply public administration principles in an approved field setting.
Attributes: No Textbook Required
Grade Mode: Credit/No Credit Grade Only

PSC 680 Master's Thesis Workshop **3 Credit hours**
 A writing workshop/seminar in which students will prepare their Master's Thesis Prospectus.
Grade Mode: Credit/No Credit Grade Only

PSC 681 Thesis **1-6 Credit hours**
Grade Mode: Normal Grading Mode

Psychology

PSY 502 Adv Social Psychology **3 Credit hours**
 Advanced study of selected topics in social psychology.
Grade Mode: Normal Grading Mode

PSY 503 Applied Social Psychology **3 Credit hours**
 Examination of the applications of social psychological methods, theories, principles and research findings to the understanding of social problems.
Grade Mode: Normal Grading Mode

PSY 506 Psychometrics **3 Credit hours**
 Mental test theory and applications.
Grade Mode: Normal Grading Mode

PSY 508 Abnormal Psychology **3 Credit hours**
 Study of the nature, causes and treatment of maladaptive human behavior.
Grade Mode: Normal Grading Mode

PSY 515 Child Psychology **3 Credit hours**
Grade Mode: Normal Grading Mode

PSY 516 Psychology of Learning **3 Credit hours**
 Critical study of the major theories of learning and related research.
Grade Mode: Normal Grading Mode

PSY 517 Inter Behavioral Stat **3 Credit hours**
 An intermediate level presentation of descriptive and inferential statistics as applied in behavioral research. 2 lec-2 lab.
Grade Mode: Normal Grading Mode

PSY 518 Psychology of Personnel **3 Credit hours**
 Psychological principles and methods applied to functions in personnel administration.
Grade Mode: Normal Grading Mode

PSY 519 Theories of Personality **3 Credit hours**
Grade Mode: Normal Grading Mode

PSY 520 Intro to I-O Psychology **3 Credit hours**
 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.
Grade Mode: Normal Grading Mode

PSY 526 Cross Cultural Psychology **3 Credit hours**
 Emic and etic cultural concepts are considered from an American (subcultural) and international perspective. Cultural influences on healing, health and service are covered.
Grade Mode: Normal Grading Mode

PSY 527 Computer Applic in PSY **3 Credit hours**
 An introduction to computer applications in psychology, emphasizing data collection, management, organization, analysis and reporting.
Grade Mode: Normal Grading Mode

PSY 533 Curr Models of Psychotherapy **3 Credit hours**
 Introduction to theoretical models and related therapeutic strategies which influence the practice of modern psycho- therapy.
Grade Mode: Normal Grading Mode

PSY 540 Physiological Psychology **3 Credit hours**
 The relationships between physiological functions and bio- chemical processes and behavior.
Grade Mode: Normal Grading Mode

PSY 543 Health Psychology **3 Credit hours**
 Introduction to the contribution of psychology to the promotion and maintenance of health and the prevention and treatment of illness.
Grade Mode: Normal Grading Mode

PSY 560 History & Systems Psych **3 Credit hours**
 Overview of Psychology from historical perspective.
Grade Mode: Normal Grading Mode

PSY 565 Love/Intimacy and Attachment **3 Credit hours**
 Examination of how childhood attachments, bonds, and relationships affect and influence adult perspectives on love, expectations, intimacy, fidelity, and commitment.
Grade Mode: Normal Grading Mode

PSY 575 Race Culture and Dev Processes **3 Credit hours**
 Examine the roles that race, ethnicity, and culture play in the physical, cognitive, intellectual, and social developmental processes of people of color.
Grade Mode: Normal Grading Mode

PSY 580 Special Topics **1-4 Credit hours**
Grade Mode: Normal Grading Mode

PSY 581 Special Topics **1-4 Credit hours**
Grade Mode: Normal Grading Mode

PSY 582 Special Topics **1-4 Credit hours**
Grade Mode: Normal Grading Mode

PSY 583 Special Topics **1-4 Credit hours**
Grade Mode: Normal Grading Mode

PSY 585 Independent Study **1-4 Credit hours**
Grade Mode: Normal Grading Mode

PSY 586 Independent Study **1-4 Credit hours**
Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

PSY 587 Independent Study **1-4 Credit hours**
Grade Mode: Normal Grading Mode

PSY 588 Independent Study	1-4 Credit hours	PSY 623 Experimental Design	3 Credit hours
Grade Mode: Normal Grading Mode		An introduction to the design and interpretation of behavioral research. Emphasis is upon tests of significance and assumptions governing their application.	
PSY 600 Teaching Psychology	3 Credit hours	Pre-req: PSY 517 or (PSYC 521 or PSYC 521G).	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSY 605 Ethic Legal & Prof Issue Psych	3 Credit hours	PSY 624 Multivariate Analysis	3 Credit hours
Introduction to ethical standards and issues, laws which influence psychological practice and current challenges facing psychology as a profession.		Multivariate analysis in behavioral research including multiple regression, analysis of variance, canonical correlation, and principal components and factor analysis.	
Grade Mode: Normal Grading Mode		Pre-req: PSY 623 or PSY 652.	
PSY 606 Adv Social Psychology	3 Credit hours	Grade Mode: Normal Grading Mode	
Advanced study of selected topics in social psychology.		PSY 627 Social Psych Bases of Groups	3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSY 608 Differ Diagnosis & Treat Plan	3 Credit hours	PSY 630 Adult Diagnosis & Therapy	3 Credit hours
Grade Mode: Normal Grading Mode		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: Admission to clinical psychology graduate program; instructor permission.)	
PSY 610 Assessment of Adults	3 Credit hours	Grade Mode: Normal Grading Mode	
Principles and methods of psychological assessment for adults. Key issues in test construction and training in report writing. (PR: Admission to Clinical Psychology CR: PSY 620)		PSY 632 Behavior Therapy	3 Credit hours
Grade Mode: Normal Grading Mode		Principles and techniques of the behavior therapies, and theories that underlie the behavioral approach.	
PSY 611 Assessment of Children	3 Credit hours	Grade Mode: Normal Grading Mode	
Principles and methods of psychological assessment for children. Key issues in test construction and training and report writing. (PR: PSY 610, CR: PSY 621)		PSY 633 Individual Psychotherapy	3 Credit hours
Pre-req: PSY 621 (may be taken concurrently).		A survey of the basic skills and techniques used in treating various forms of psychopathology.	
Concurrent PR: PSY 621		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSY 634 Group Therapy	3 Credit hours
PSY 615 Adv Developmental Psychology	3 Credit hours	Different types of group psychotherapy as appropriate for various problems and populations; intensive experience in at least two methods.	
Interpretation, evaluation, and selection of tests of ability, aptitude, attainment, interest and personality.		Pre-req: PSY 633.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSY 616 Human Memory/Inform Proc	3 Credit hours	PSY 635 Child/Fam Diagn Therapy	3 Credit hours
Theory and research relating to human learning, memory and decision processes.		The 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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSY 617 Applied Dev Psych	3 Credit hours	PSY 650 Performance Appraisal	3 Credit hours
Application of Research in Developmental Psychology to issues of causes of clinical problems, issues of parenting, and factors to be taken into account in interventions.		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: Permission of the instructor.)	
Grade Mode: Normal Grading Mode		Pre-req: PSY 518 or MGT 620G.	
PSY 618 Psychopharmacology	1 Credit hour	Grade Mode: Normal Grading Mode	
Survey of psychotropic drug substances with emphasis on neuropharmacological bases of drug action, current research methods and therapeutic implications.		PSY 651 Adv Nonparametric Statistics	3 Credit hours
Grade Mode: Normal Grading Mode		Pre-req: PSY 517.	
PSY 619 Psychotherapy with Children	3 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSY 652 Advanced Regression Techniques	3 Credit hours
PSY 620 Assessment Adults Practicum	1-3 Credit hours	Pre-req: PSY 517 or PSYC 521G.	
Grade Mode: Credit/No Credit Grade Only		Grade Mode: Normal Grading Mode	
PSY 621 Assessment Children Practicum	1-3 Credit hours	PSY 654 Single Subject Analysis	3 Credit hours
Grade Mode: Credit/No Credit Grade Only		Pre-req: PSY 517.	
PSY 622 Research Sem in Psych	3 Credit hours	Grade Mode: Normal Grading Mode	
This seminar covers advanced topics in research design and methodology. Students will explore various methods available to address specific research questions in the behavioral sciences.			
Pre-req: PSY 517 with a minimum grade of D.			
Grade Mode: Normal Grading Mode			

PSY 656 Research in Psychology Grade Mode: Normal Grading Mode	1-3 Credit hours	PSY 685 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours
PSY 657 Research in Psychology Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1-3 Credit hours	PSY 686 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours
PSY 670 Clinical Practicum Supervised application of principles of therapy and evaluation in a clinical setting. CR/NC grading. Pre-req: PSY 608 or PSYC 608G and PSY 633. Grade Mode: Credit/No Credit Grade Only	1-3 Credit hours	PSY 687 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours
PSY 671 Clinical Practicum Supervised application of principles of therapy and evaluation in a clinical setting. CR/NC grading. Pre-req: PSY 608 and PSY 633. Attributes: No Textbook Required Grade Mode: Credit/No Credit Grade Only	1-3 Credit hours	PSY 688 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours
PSY 672 Cognition and Emotion Theory and research findings in learning/memory, attention, problem solving, decision making, concept formation and perception. Emphasis will be on the cognitive and emotional factors that influence learning/memory and thinking. Grade Mode: Normal Grading Mode	3 Credit hours	PSY 690 Seminar Reports on current problems and literature in psychology and related fields; professional ethics. Grade Mode: Normal Grading Mode	1-3 Credit hours
PSY 674 Biological Bases of Behavior Grade Mode: Normal Grading Mode	3 Credit hours	PSY 691 Seminar Reports on current problems and literature in psychology and related fields; professional ethics. Grade Mode: Normal Grading Mode	1-3 Credit hours
PSY 675 Pract Teach PSY Supervised teaching experience in introductory psychology, including development of lectures, classroom demonstrations, quizzes, tests, extra credit activities and syllabi. Pre-req: PSY 600. Attributes: No Textbook Required Grade Mode: Credit/No Credit Grade Only	1-3 Credit hours	PSY 692 Seminar Reports on current problems and literature in psychology and related fields; professional ethics. Grade Mode: Normal Grading Mode	1-3 Credit hours
PSY 676 Pract Teach PSY Supervised teaching experience in introductory psychology, including development of lectures, classroom demonstrations, quizzes, tests, extra credit activities and syllabi. Pre-req: PSY 600. Grade Mode: Credit/No Credit Grade Only	1-3 Credit hours	PSY 693 Seminar Reports on current problems and literature in psychology and related fields; professional ethics. Grade Mode: Normal Grading Mode	1-3 Credit hours
PSY 680 Clinical Internship Placement in an approved mental health setting for minimum of 400 hours. Supervised by on-site personnel in addition to psychology faculty. Pre-req: PSY 671 or PSYC 725G. Attributes: No Textbook Required Grade Mode: Credit/No Credit Grade Only	1-6 Credit hours	PSY 694 Seminar Reports on current problems and literature in psychology and related fields; professional ethics. Grade Mode: Normal Grading Mode	1-3 Credit hours
PSY 681 Thesis Pre-req: PSY 517. Attributes: No Textbook Required Grade Mode: Credit/No Credit Grade Only	1-6 Credit hours	PSY 695 Seminar Reports on current problems and literature in psychology and related fields; professional ethics. Grade Mode: Normal Grading Mode	1-3 Credit hours
PSY 683 I-O Psych Internship 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. (PR: Psy 518 or PSY 520 and Permission.) Pre-req: PSY 518 and PSY 604 and PSY 624. Grade Mode: Credit/No Credit Grade Only	3 Credit hours	PSY 697 Sem: Adv Res in Psychology This seminar will provide advanced coverage of topics related to the design of research in psychology. Students in the seminar will gain experience planning an independent research project. Pre-req: PSY 517 or PSY 623. Grade Mode: Normal Grading Mode	3 Credit hours
		PSY 706 Integrated Assessment I Covers integrated, battery-based assessment of adults with emphasis on test selection and construction, validity, reliability, special populations, cultural and individual differences, and preparation of professional reports. Pre-req: PSY 707 (may be taken concurrently). Concurrent PR: PSY 707 Grade Mode: Normal Grading Mode	3 Credit hours
		PSY 707 Int Assessment Pract I Covers instrument administration for the psychological assessment of adults; includes multiple diagnostic procedures. Pre-req: PSY 706 (may be taken concurrently). Concurrent PR: PSY 706 Grade Mode: Credit/No Credit Grade Only	1 Credit hour

PSY 708 Integrated Assessment II**3 Credit hours**

Covers integrated, battery-based assessment of children with emphasis on test selection and construction, validity, reliability, special populations, cultural and individual differences, and preparation of professional reports.

Grade Mode: Normal Grading Mode**PSY 709 Int Assessment Pract II****1 Credit hour**

Covers instrument administration for the psychological assessment of children; includes multiple diagnostic procedures.

Grade Mode: Credit/No Credit Grade Only**PSY 710 Adv Psych Assessment****3 Credit hours**

This course will offer coverage in advanced topics in psychological assessment. These topics will include geriatric assessment, assessment of addictions, neuro- psychological screening, forensic assessment, and cross- cultural assessment issues. (PR: Admission to Psy.D. program or permission of instructor.)

Grade Mode: Normal Grading Mode**PSY 712 Geropsychology****3 Credit hours**

An examination of normal and abnormal processes of aging, including common social, cognitive, health, and psycho- pathological problems, will be studied. Issues of community resources, assessment and therapy will be discussed. (PR: Admission to Psy.D. program or permission of instructor)

Grade Mode: Normal Grading Mode**PSY 713 Adv Assess Practicum****3 Credit hours**

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.

Grade Mode: Credit/No Credit Grade Only**PSY 714 Adv Assess Practicum****3 Credit hours**

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.

Grade Mode: Credit/No Credit Grade Only**PSY 717 Adv Quantitative Analysis****3 Credit hours**

An advanced level presentation of inferential statistics as applied in behavioral research as a part of experimental design and literature review.

Pre-req: PSY 517 or PSY 723.**Grade Mode:** Normal Grading Mode**PSY 723 Clin Res Meth in Psych****3 Credit hours**

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. Pre: Admission to Psy.D. Program or permission.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**PSY 726 Adv St Cross Cult Psych****3 Credit hours**

Comprehensive, broad scope course covering research topics, definitions and methodology; behavioural health needs of minorities; cultural perspectives on health/healing/wellness; international applications of psychological theory/practice.

Grade Mode: Normal Grading Mode**PSY 731 Psychotherapy I****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**PSY 732 Psychotherapy II****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**PSY 733 Psychotherapy III****3 Credit hours**

Ad 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)

Grade Mode: Normal Grading Mode**PSY 750 Clinical Health Psychology****3 Credit hours**

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.)

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**PSY 752 Rural Community Psych I****3 Credit hours**

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.)

Grade Mode: Normal Grading Mode**PSY 753 Supervision in Clin Psy****3 Credit hours**

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 permission of instructor.)

Grade Mode: Normal Grading Mode**PSY 755 Rural Community Psych II****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**PSY 756 Independent Study****1-4 Credit hours**

This is a doctoral level course which will permit students to explore topics in-depth that are not part of the regular curriculum. Faculty supervision is required.

Grade Mode: Normal Grading Mode**PSY 764 Adv Human Sexuality****3 Credit hours**

An examination of the knowledge and theory which explain important areas of sexual behavior. Topics emphasize sexual orientations, sexual dysfunctions, gender identity, paraphilias, compulsive and coercive behavior. PR: Admission to Psy.D. program or permission of instructor.)

Grade Mode: Normal Grading Mode

PSY 769 Pract in Clinical Psychology 1-3 Credit hours

Supervised application of principles of therapy and evaluation in a clinical setting. (PR: PSY 671 or Consent)

Grade Mode: Credit/No Credit Grade Only

PSY 770 Adv Practicum in Clin Psy 3 Credit hours

Students provide supervised clinical services at an approved field site.

Pr: Admission to Psy.D. Completion of PSY 670-671 and Permission.

Grade Mode: Credit/No Credit Grade Only

PSY 771 Adv Practicum in Clin Psy 3 Credit hours

Students provide supervised clinical services at an approved field site.

Pre: Admission to Psy.D Completion of PSY 670-671 and Permission.

Attributes: No Textbook Required

Grade Mode: Credit/No Credit Grade Only

PSY 772 Rural Pract I 3 Credit hours

Supervised two semester sequence providing field experience in rural mental health settings. (PR: PSY 755; 752; 770; 771)

Pre-req: PSY 770 and PSY 771.

Grade Mode: Credit/No Credit Grade Only

PSY 773 Rural Practicum II 3 Credit hours

Supervised two semester sequence providing field experience in rural mental health settings. (PR: PSY 755; 752; 770; 771)

Attributes: No Textbook Required

Grade Mode: Credit/No Credit Grade Only

PSY 780 Pre-Doctoral Internship 1-9 Credit hours

Culminating training experience within the Psy. D. program. Students complete full-time, full year placement (or 2 year equivalent) at a APA/ APPIC accredited site or one approved by clinical faculty.

Grade Mode: Credit/No Credit Grade Only

PSY 781 Pre-doctoral Internship 1-9 Credit hours

Culminating training experience within the Psy. D. program. Students complete full-time, full year placement (or 2 year equivalent) at an APA/ APPIC accredited site or one approved by clinical faculty.

Attributes: No Textbook Required

Grade Mode: Credit/No Credit Grade Only

PSY 782 Pre-doctoral Internship 1-9 Credit hours

Culminating training experience within the Psy. D. program. Students complete full-time, full year placement (or 2 year equivalent) at an APA/ APPIC accredited site or one approved by clinical faculty.

Grade Mode: Credit/No Credit Grade Only

PSY 783 Pre-Doctoral Internship 1-9 Credit hours

Culminating training experience within the Psy. D. program. Students complete full-time, full year placement (or 2 year equivalent) at an APA/ APPIC accredited site or one approved by clinical faculty.

Grade Mode: Credit/No Credit Grade Only

PSY 790 Sem: Clinical Psychology 1-3 Credit hours

Grade Mode: Normal Grading Mode

PSY 791 Sem: Clinical Psychology 1-3 Credit hours

Grade Mode: Normal Grading Mode

PSY 792 Sem: Clinical Psychology 1-3 Credit hours

Grade Mode: Normal Grading Mode

PSY 793 Sem: Clinical Psychology 1-3 Credit hours

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.

Grade Mode: Normal Grading Mode

PSY 794 Sem: Clinical PSY 1-3 Credit hours

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.

Grade Mode: Normal Grading Mode

PSY 795 Sem: Clinical Psychology 1-3 Credit hours

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.

Grade Mode: Normal Grading Mode

PSY 796 Sem: Clinical PSY 1-3 Credit hours

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.

Grade Mode: Normal Grading Mode

PSY 799 Doctoral Research 3-9 Credit hours

Doctoral research project under the supervision of research committee and chair. (Prerequisites: Permission of Program)

Attributes: No Textbook Required

Grade Mode: Credit/No Credit Grade Only

School Psychology**SPSY 523 Independent Research 1-3 Credit hours**

Course designed to provide the student with the opportunity to work with a school psychology program professor on a research problem mutually agreed upon in terms of a specific plan of study. (PR: Permission of the instructor)

Grade Mode: Normal Grading Mode

SPSY 601 Prof Comp I Schools 3 Credit hours

This course is designed as an introduction to schools as organizations and systems.

Grade Mode: Normal Grading Mode

SPSY 603 Prof Comp II School Psych 3 Credit hours

This course provides an opportunity to teach the historical roots of contemporary psychology and school psychology and to help students contemplate the future of school psychology. (PR: SPSY 601)

Pre-req: SPSY 601.

Grade Mode: Normal Grading Mode

SPSY 606 Adol Substance Abuse 3 Credit hours

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.

Grade Mode: Normal Grading Mode

SPSY 616 Typ & Atyp Child Dev 3 Credit hours

This is a multicultural, reading and writing intensive course that presents information on typical and atypical human development.

Grade Mode: Normal Grading Mode

SPSY 617 Ind Svc I Consultation 3 Credit hours

This course is an introduction to the theory and practice of consultation and will prepare students to serve as consultants within public schools.

Grade Mode: Normal Grading Mode

SPSY 618 Dir Svc I Instruct & Bmod**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

SPSY 619 Dir Svc II-Ind Grp Csl**3 Credit hours**

This course is a direct interventions course focusing on individual and group therapy for children.

Grade Mode: Normal Grading Mode

SPSY 620 Ind Svc II Prevention**3 Credit hours**

This course is an introduction to the science and practice of primary prevention. Pre: SPSY 617.

Pre-req: SPSY 617.

Grade Mode: Normal Grading Mode

SPSY 621 Data-Based Decision I**3 Credit hours**

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 kit".

Grade Mode: Normal Grading Mode

SPSY 622 Data-Based Decision II**3 Credit hours**

This course is an intermediate problem-solving course designed to provide students with a variety of assessment measures to add to their professional "tool kit".

Grade Mode: Normal Grading Mode

SPSY 624 Data-Based Decision III**3 Credit hours**

Review of standard assessment instruments used in school psychology practice emphasizing those aspects of specialized testing consistent with diagnostic needs of the individual child or groups of children. (PR: SPSY 622)

Grade Mode: Normal Grading Mode

SPSY 674 Bio Bases School Psych**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

SPSY 675 Cognitive/Emo Bases Sch Psy**3 Credit hours**

SPSY 675 is a reading and writing intensive course that presents information of the psychological foundations of school psychology.

Grade Mode: Normal Grading Mode

SPSY 700 Special Topics**1-6 Credit hours**

Courses in specialized areas of school psychology on issues in the practice of school psychology. (PR: Permission of the instructor.)

Grade Mode: Normal Grading Mode

SPSY 701 Behavior Therapy**3 Credit hours**

Grade Mode: Normal Grading Mode

SPSY 710 Application of MTSS**3 Credit hours**

The focus of this course will be to integrate elements of consultation, assessment, and intervention into a comprehensive Multi-Tiered System of Support for behavior and academics from the perspective of a school psychologist.

Pre-req: SPSY 621 with a minimum grade of C and SPSY 622 with a minimum grade of C.

Grade Mode: Normal Grading Mode

SPSY 720 Counseling With Youth Ad**3 Credit hours**

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.

Pre-req: PSY 619.

Grade Mode: Normal Grading Mode

SPSY 738 Practicum I**3 Credit hours**

The initial practicum in school psychology is designed to provide a structured, experiential link between early coursework and practical experience. Pre: SPSY 601, SPSY 616, SPSY 621.

Pre-req: SPSY 621 and SPSY 616.

Grade Mode: Credit/No Credit Grade Only

SPSY 739 Practicum II**3 Credit hours**

The second practicum in school psychology is designed to provide a structured, experiential link between intermediate coursework and practical experience. Pre: SPSY 738.

Pre-req: SPSY 738.

Grade Mode: Credit/No Credit Grade Only

SPSY 740 Practicum III**1-6 Credit hours**

During this capstone experience, students will provide a full range of school psychological services in a multi-disciplinary training setting supervised by credentialed school psychologists.

Grade Mode: Credit/No Credit Grade Only

SPSY 745 Internship in Sch Psych**1-12 Credit hours**

Grade Mode: Credit/No Credit Grade Only

SPSY 750 Ed S Thesis Research**3 Credit hours**

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.

Grade Mode: Credit/No Credit Grade Only

SPSY 751 Program Evaluation**3 Credit hours**

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.

Pre-req: PSY 517 and SPSY 623.

Grade Mode: Credit/No Credit Grade Only

Sociology

SOC 501 Population and Human Ecology**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

SOC 508 The Family**3 Credit hours**

Theoretical analysis of the family as a primary social institution.

Grade Mode: Normal Grading Mode

SOC 513 Social Movements & Soc Change**3 Credit hours**

Analysis of large-scale social change, including intentional social movements and revolutions.

Grade Mode: Normal Grading Mode

SOC 520 Criminology**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

SOC 523 Social Class, Power & Conflict 3 Credit hours

Theoretical analysis of economic and political inequality and the role of social conflict in the process of large- scale social organization.

Grade Mode: Normal Grading Mode

SOC 525 Race and Ethnicity 3 Credit hours

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.

Grade Mode: Normal Grading Mode

SOC 528 Medical Sociology 3 Credit hours

Social organization of modern medicine and allied health delivery systems.

Grade Mode: Normal Grading Mode

SOC 532 Sociology of Appalachia 3 Credit hours

Study of the economics, politics, and social relations of Appalachia, including contemporary debates.

Grade Mode: Normal Grading Mode

SOC 533 Sociology of Work 3 Credit hours

Study of the organization and structure of the workplace as a social system; the meaning and organizations of work; managerial functions; management-labor relations; and human relations in industry.

Grade Mode: Normal Grading Mode

SOC 540 Intro to the Soc of Aging 3 Credit hours

An introduction to the social processes and consequences of growing older for both the individual and society.

Grade Mode: Normal Grading Mode

SOC 542 Urban Sociology 3 Credit hours

The sociology of urban and metropolitan communities.

Grade Mode: Normal Grading Mode

SOC 543 Evaluation Research 3 Credit hours

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.

Grade Mode: Normal Grading Mode

SOC 550 Sociology of Religion 3 Credit hours

An investigation into the nature of religion as a social phenomenon.

Grade Mode: Normal Grading Mode

SOC 551 Science Knowledge & Tech 3 Credit hours

Studies science knowledge and technology as a human endeavor. Examines the processes and products, controversies, social impacts, interactions between science and other social institutions like religion and politics.

Pre-req: SOC 200.

Grade Mode: Normal Grading Mode

SOC 552 Soc Of Death & Dying 3 Credit hours

The study of death and dying as a societal and cultural phenomenon. Explores how institutions within our society deal with death.

Grade Mode: Normal Grading Mode

SOC 555 Sociology of Sex and Gender 3 Credit hours

Analysis of social differentiation and inequality by gender, with a focus on the contemporary U.S.

Grade Mode: Normal Grading Mode

SOC 560 The Holocaust and Genocide 3 Credit hours

An examination of the Holocaust and other genocides from an interdisciplinary social science perspective.

Grade Mode: Normal Grading Mode

SOC 566 Culture and Environment 3 Credit hours

This course will examine the symbolic and structural dimensions of struggles over defining, organizing, and controlling the natural environment from a biocultural perspective.

Grade Mode: Normal Grading Mode

SOC 568 National Identity 3 Credit hours

Exploration of the cultural, political and economic processes that contribute to the creation and maintenance of the modern nation state as an imagined community.

Grade Mode: Normal Grading Mode

SOC 570 Soc Field Experience 3-6 Credit hours

Supervised field work in a social organization or community working on practical problems.

Grade Mode: Normal Grading Mode

SOC 571 Soc Field Experience 3-6 Credit hours

Supervised field work in a social organization or community working on practical problems.

Pre-req: SOC 506.

Grade Mode: Normal Grading Mode

SOC 580 Special Topics 1-4 Credit hours

Study of topics not covered in regularly scheduled courses.

Grade Mode: Normal Grading Mode

SOC 581 Special Topics 1-4 Credit hours

Study of topics not covered in regularly scheduled courses.

Grade Mode: Normal Grading Mode

SOC 582 Special Topics 1-4 Credit hours

Study of topics not covered in regularly scheduled courses.

Grade Mode: Normal Grading Mode

SOC 583 Special Topics 1-4 Credit hours

Study of topics not covered in regularly scheduled courses.

Grade Mode: Normal Grading Mode

SOC 585 Independent Study 1-4 Credit hours

Individual study of topics not offered in regularly scheduled courses.

Grade Mode: Normal Grading Mode

SOC 586 Independent Study 1-4 Credit hours

Individual study of topics not offered in regularly scheduled courses.

Grade Mode: Normal Grading Mode

SOC 587 Independent Study 1-4 Credit hours

Individual study of topics not offered in regularly scheduled courses.

Grade Mode: Normal Grading Mode

SOC 588 Independent Study 1-4 Credit hours

Individual study of topics not offered in regularly scheduled courses.

Grade Mode: Normal Grading Mode

SOC 600 Classical Sociological Theory 3 Credit hours

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.

Grade Mode: Normal Grading Mode

SOC 601 Contemp Sociological Theory 3 Credit hours

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.

Grade Mode: Normal Grading Mode

SOC 602 Contemp Social Change**3 Credit hours**

Theories of social change and their used in analyzing social change of today.

Grade Mode: Normal Grading Mode

SOC 603 Behavioral Science I**3 Credit hours**

Seminar in behavioral science theory.

Grade Mode: Normal Grading Mode

SOC 604 Behavioral Science II**3 Credit hours**

Seminar in behavioral science theory.

Grade Mode: Normal Grading Mode

SOC 605 Qual Res Methods and Analysis**3 Credit hours**

Seminar in qualitative research methods and analysis. Topics covered include coding, using qualitative software, generating theory, participant observation, intensive interview, internet inquiry, focus groups, documents, and content analysis.

Grade Mode: Normal Grading Mode

SOC 606 Quantitative Res Meth Analysis**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

SOC 609 Professional Development**3 Credit hours**

Career preparation for teaching, research, and non-academic settings.

Grade Mode: Credit/No Credit Grade Only

SOC 614 Applied Demography**3 Credit hours**

Grade Mode: Normal Grading Mode

SOC 615 Applied Demography**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

SOC 620 Criminology**3 Credit hours**

Seminar in crime and delinquency.

Grade Mode: Normal Grading Mode

SOC 640 Problems Aging Society**3 Credit hours**

Seminar in current and anticipated social consequences of aging for individuals and society and societal responses to this process.

Grade Mode: Normal Grading Mode

SOC 645 Social Statistics II**3 Credit hours**

Intermediate level statistical analysis including analysis of variance and covariance.

Grade Mode: Normal Grading Mode

SOC 655 Feminist Social Theory**3 Credit hours**

Diverse theoretical perspectives on the origins and nature of gender, inequality. Emphasis on contemporary debates and their political implications.

Grade Mode: Normal Grading Mode

SOC 668 Seminar**1-3 Credit hours**

Topics vary from semester to semester.

Grade Mode: Normal Grading Mode

SOC 679 Problem Report**1-3 Credit hours**

The preparatin of a written report on a research problem or field study in sociology.

Grade Mode: Normal Grading Mode

SOC 681 Thesis**1-6 Credit hours**

Individual research in a selected field of sociology under the direction of a member of the department.

Grade Mode: Normal Grading Mode

SOC 685 Independent Study**1-4 Credit hours**

Individual study of topics not offered in regularly scheduled courses.

Grade Mode: Normal Grading Mode

Women's Studies**WS 101 Intro to Women's Studies****3 Credit hours**

Historical and social problems of women. Draws upon literature, history, psychology, sociology and economics to illuminate problems women face today.

Grade Mode: Normal Grading Mode

WS 480 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

WS 481 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

WS 482 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

WS 483 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

WS 485 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

WS 486 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

WS 487 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

WS 488 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

Anthropology, Minor

A minor in anthropology is earned by taking at least 9 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.

Appalachian Studies, Graduate Certificate

The Humanities program is home for the Graduate Certificate in Appalachian Studies, a non-degree program of 15 hours composed of foundation courses (CULS 611 Appal Std: Themes & Voices or CULS 612 Time & Place in Appalachia), electives to meet specific educational goals, and a capstone research experience (HUMN 680 Independent Research Symposium).

For additional information, contact the Humanities Program.

Admission Requirements

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.

Plan of Study

Course Requirements

- Interdisciplinary Core Classes (3 hours). Choose One:
 - CULS 611 Appal Std: Themes & Voices Orients students to the significant political, social, and cultural issues and research in Appalachian studies.
 - CULS 612 Time & Place in Appalachia Examines the importance of geography, topography, and geology to the history and development of the Appalachian region.
- Electives (9 hours)
Students may take a broad range of rotating and Special Topics courses. Examples include:
 - Appalachian Cultures
 - Appalachian Archaeology
 - Geography of Appalachia
 - West Virginia History
 - First Peoples of Appalachia
 - Images of Appalachia
 - Religious Traditions in Appalachia
 - Ethnic History of West Virginia
 - Coal Mine Life, Work and Culture
 - Sociology of Appalachia
 - Appalachian Writers - 20th C.
- Capstone Experience (3 hours) HUMN 680 Independent Research Symposium
This research colloquium affords students the opportunity to complete independent research or field work under the guidance of faculty mentors teaching in the certificate program. Seminar meetings allow students to share research and examine issues arising from the research.

Behavioral Statistics, Graduate Certificate

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.

Admission Requirements

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 are 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 Inter Behavioral Stat 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.

Program Requirements

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 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.

Plan of Study

Code	Title	Credit Hours
Requirements		
PSY 517	Inter Behavioral Stat	3
PSY 623	Experimental Design	3
PSY 624	Multivariate Analysis	3
PSY 651	Adv Nonparametric Statistics	3
or PSY 654	Single Subject Analysis	
Total Credit Hours		12

Clinical Psychology, Post-Master's Certificate

The Clinical Psychology post-master's certificate consists of 26 credit hours of clinical coursework and supervised clinical experience to prepare graduates for master's degree level clinical roles within professional psychology. It is designed specifically for individuals who already hold a master's or doctoral degree in a non-clinical area of

psychology and whose courses meeting the required core courses were completed less than seven (7) years prior to admission. Similarly, any student who is fully admitted to the General Psychology M.A. program seeking clinical training who will graduate prior to starting the clinical training program must apply for admission to the Clinical Psychology Post-Master's Certificate. For those who will not graduate with a General Psychology MA degree prior to starting the clinical training program should apply to the Area of Emphasis in Clinical Psychology.

More information and application materials are available from advisors and from the Clinical area coordinator.

Admission Requirements

Admissions Priority Deadlines

Applications for admission to the Area of Emphasis in Clinical Psychology master's program are due by January 31st and will be given priority over those completed after this date. These will be acted on before April 15th of each year. Slots in the Clinical Psychology Area of Emphasis program are limited. The most qualified applicants will be accepted until the slots have been filled. Grade Point Averages (undergraduate and graduate), GRE scores, and faculty recommendations will be considered.

Program Requirements

The courses required for the Clinical Psychology certificate are the same as those for the Area of Emphasis in Clinical Psychology. The difference is that those admitted to the Post Master's Certificate will have met the required core areas for the degree within the past seven (7) years and as part of a prior degree (e.g., general psychology master's degree or non-clinical doctoral degree). Those marked with ¹ are restricted to students in the clinical certificate program. 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.

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 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.

Plan of Study

Code	Title	Credit Hours
Required Courses		
PSY 608	Differ Diagnosis & Treat Plan ¹	3
PSY 633	Individual Psychotherapy ¹	3
PSY 610	Assessment of Adults ¹	3
PSY 611	Assessment of Children ¹	3
PSY 620	Assessment Adults Practicum ¹	1
PSY 621	Assessment Children Practicum ¹	1
PSY 634	Group Therapy ¹	3
PSY 731	Psychotherapy I ¹	3
PSY 732	Psychotherapy II ¹	3
PSY 670	Clinical Practicum ¹	3
PSY 680	Clinical Internship ¹	3
Electives		
PSY 619	Psychotherapy with Children ¹	
PSY 630	Adult Diagnosis & Therapy ¹	
PSY 635	Child/Fam Diagn Therapy ¹	
PSY 671	Clinical Practicum ¹	
Total Credit Hours		29

¹ Restricted to students in the clinical certificate program.

Clinical 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.

Objective 1.9: Professional Values, Attitudes, and Behaviors competence: Students will show evidence in behavior and comportment that reflect the values, behaviors, attitudes of the field of psychology. This includes being honest, accountable, punctual, and reliable. Their development of a professional identity will begin to emerge, and they will use resources, such as supervision and literature, to continue their professional development. Students will conduct themselves in a professional manner, including attire, across different settings. Students will recognize and work to resolve situations that challenge the adherence to professional values and integrity. Likewise, they will act to understand and safeguard the welfare of others.

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.

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.

Objective 2.1: Faculty and students are encouraged to develop research projects that permit the examination of the impact of rural/Appalachian culture.

Objective 2.2: Faculty and students are encouraged to present their work in conferences and workshops that address issues pertinent to rural populations.

Accreditation

The program is accredited by the American Psychological Association [Commission on Accreditation 750 First St. NE, Washington, DC 20002-4242, Telephone: 800-374-2721; 202-336-5500, E-mail: apaaccred@apa.org]. The program has also been recognized as a designated program by the National Register/Association of State and Provincial Boards of Professional Psychology [National Register, 1200 New York Ave NW, Ste 800, Washington DC 20005, Telephone: 202-783-7663; ASPPB, PO BOX 849, Tyrone, GA 30290, Telephone: 678-216-1175, E-mail: asppb@asppb.org]. Marshall University is accredited by the Higher Learning Commission (230 South LaSalle Street, Suite 2400, Chicago, IL 60602; toll-free 1-800-621-7440, www.hlcommission.org (<http://www.hlcommission.org>)).

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 (<http://www.marshall.edu/bursar/>) to obtain current program costs.

Internship acceptance rates. For the academic year 2019-2020, ten 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: 100%
- Percent obtaining internships at APA sites 90%

Attrition. At present, the overall attrition rate is 0% (2016-2019).

Licensure outcomes. The program claims a licensure rate of 85%.

Admission Requirements

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 receive priority consideration 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 and scores on the Quantitative section not be lower than 141. Likewise, it is recommended that applications have a minimum combined total on those two sections of 297. 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 www.marshall.edu/psych (<http://www.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 as follows:

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 led 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.

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 director 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.

Program Requirements

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 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.

Plan of Study

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 (<http://www.marshall.edu/psych/>).

Code	Title	Credit Hours
Foundational Psychotherapy		
PSY 633	Individual Psychotherapy	3
Foundational Assessment		

PSY 706	Integrated Assessment I	3
PSY 707	Int Assessment Pract I	1
PSY 708	Integrated Assessment II	3
PSY 709	Int Assessment Pract II	1
Optional		
PSY 710	Adv Psych Assessment	
Biological Bases of Behavior		
PSY 674	Biological Bases of Behavior	3
PSY 618	Psychopharmacology	1
PSY 750	Clinical Health Psychology	3
Cognitive and Affective Aspects of Behavior		
PSY 672	Cognition and Emotion	3
History and Systems of Behavior		
PSY 560	History & Systems Psych	3
Research Methodology and Data Analysis		
PSY 723	Clin Res Meth in Psych	3
PSY 799	Doctoral Research (6 or more credits)	6
PSY 717	Adv Quantitative Analysis	3
or EDF 625	Qualitative Research Educ	
Human Development and Individual Differences		
PSY 615	Adv Developmental Psychology	3
PSY 712	Geropsychology	3
PSY 764	Adv Human Sexuality	3
Psychopathology		
PSY 608	Differ Diagnosis & Treat Plan	3
Professional Standards and Ethics		
PSY 605	Ethic Legal & Prof Issue Psych	3
Social Aspects of Behavior		
PSY 606	Adv Social Psychology ¹	3
Cultural and Individual Diversity		
PSY 752	Rural Community Psych I	3
PSY 726	Adv St Cross Cult Psych	3
Advanced Psychotherapy		
PSY 635	Child/Fam Diagn Therapy	3
PSY 731	Psychotherapy I	3
PSY 732	Psychotherapy II	3
PSY 733	Psychotherapy III	3
PSY 755	Rural Community Psych II	3
PSY 634	Group Therapy	3
Consultation and Supervision		
PSY 753	Supervision in Clin Psy	3
Clinical Practica		
PSY 670	Clinical Practicum	1-3
PSY 671	Clinical Practicum	1-3
PSY 769	Pract in Clinical Psychology	1-3
PSY 713	Adv Assess Practicum	3
PSY 714	Adv Assess Practicum	3
PSY 770	Adv Practicum in Clin Psy	3
PSY 771	Adv Practicum in Clin Psy	3
PSY 772	Rural Pract I	3
PSY 773	Rural Practicum II	3
Internship		

Select 3-9 credits from the following: 3-9

PSY 780	Pre-Doctoral Internship
PSY 781	Pre-doctoral Internship
PSY 782	Pre-doctoral Internship
PSY 783	Pre-Doctoral Internship

Clinical Seminars

Select two of the following: 6

PSY 790	Sem: Clinical Psychology
PSY 791	Sem: Clinical Psychology
PSY 792	Sem: Clinical Psychology
PSY 793	Sem: Clinical Psychology
PSY 794	Sem: Clinical PSY
PSY 795	Sem: Clinical Psychology
PSY 796	Sem: Clinical PSY

Teaching Experience

Optional	
PSY 600	Teaching Psychology

Total Credit Hours 111-123

¹ Note: PSY 606 Adv Social Psychology carries a prerequisite of having taken an undergraduate course in Social Psychology. This prerequisite must be fulfilled before taking PSY 606 Adv Social Psychology as a program requirement.

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/ (<http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>).

Full Admission

In addition, to be Unconditionally Admitted to the Communication Studies department, an applicant must have:

- An undergraduate GPA of 3.0 or better on a 4.0 scale for all previously completed undergraduate university work.
- A written statement of educational and professional goals addressing how the Communication Studies M.A. program will help achieve those goals. (500 words)
- 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.

Provisional Admission

The communication Studies program may admit applicants Provisionally who have an undergraduate degree GPA between 2.5 and 2.99 on a 4.0 scale. Students admitted Provisionally must attain a 3.0 GPA their first semester in the program or be academically dismissed.

Students admitted Provisionally will not be eligible for a Teaching Assistantship their first semester in the program.

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 (<http://www.marshall.edu/graduate/graduate-assistantships-2/graduate-assistantship-overview/>).

For complete information on other financial support opportunities please see www.marshall.edu/graduate (<http://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 Prob & Meth Com Research and CMM 606 Study Communication Thry. 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.

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, and/or Creative Writing. 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, and/or Creative Writing from diverse perspectives;
- 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, and Creative Writing;

- articulate recent developments in these fields as influenced by other disciplines;
- elucidate major critical and cultural theories in Literary Studies, Composition/Rhetoric, and/or Creative Writing, 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, and/or Creative Writing.

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/>). 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 professional letters of recommendation regarding the applicant's academic ability, at least two of which must be from college instructors. Applicants who are not able to obtain letters from college instructors may submit letters from other professional sources with a brief note of explanation.

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 must take ENG 630 Materials & Meth Research in their first fall semester.
 - Teaching Assistants must take ENG 560 Comp and Writing Center Theory in their first fall semester and ENG 640 Composition Pedagogy 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 Thesis)
 - Portfolio (ENG 682 Portfolio plus a 600-level course of the student's choosing)
 - Comprehensive Exams (ENG 683 Comprehensive Exams 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 earn no more than two grades of C or lower in any graduate course.

Geography, Accelerated Master's Degree

An Accelerated Master's Degree is available for qualified undergraduate majors. See the Accelerated Graduate Degree section in this catalog for details.

Geography, M.A. 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 (<http://www.marshall.edu/geography/>), e-mail geography@marshall.edu 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 (<http://www.marshall.edu/graduate/>). In addition, M.A. applicants must:

- Submit a curriculum vitae (CV) and/or resume with the graduate application'
- Submit a letter of recommendation (either from an employer or faculty member) with the graduate application.

Graduate Assistantships

Applications for department research or teaching assistantships are available from the department website at www.marshall.edu/geography (<http://www.marshall.edu/geography/>). For more information about graduate assistantships at Marshall University, please see www.marshall.edu/graduate (<http://www.marshall.edu/graduate/>).

For more information about other financial support, please see www.marshall.edu (<http://www.marshall.edu/>).

Program Requirements

Candidates for the master's degree must meet the general requirements for the Graduate College and complete a minimum of 34 total credits.

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.

Plan of Study

Code	Title	Credit Hours
Required Courses		
Select one GEO GIScience course from the following:		3-4
GEO 523	Cartography & GIS	
GEO 526	Principles of GIS	
GEO 529	Princ of GIS 2-Vector Analysis	
GEO 530	GIS-Raster Analysis	
GEO 531	Remote Sensing & Photogram	
GEO 532	Enterprise GIS	
GEO 533	GPS & Mobile Geospatial T	
GEO 554	Drones:Remote Sensing & GIS	
GEO 631	Applied GIS Projects	
GEO 634	GIS Databases & Programming	
GEO 690	Internship in Geography (using GIScience)	
GEO 580	Special Topics (GIScience Topic)	
GEO 581	Special Topics (GIScience Topic)	
GEO 582	Special Topics (GIScience Topic)	
GEO 583	Special Topics (GIScience Topic)	
GEO 585	Independent Study (GIScience Topic)	
GEO 586	Independent Study (GIScience Topic)	
GEO 587	Independent Study (GIScience Topic)	
GEO 588	Independent Study (GIScience Topic)	
GEO 540	Spatial Statistics and GIS ¹	4
GEO 601	Colloquium in Geography	3
GEO 615	Geographic Thought	3
GEO 616	Geographical Research Methods	3
GEO 679	Applied Project	3
Electives		
Select 14-15 credits of the following:		14-15
GEO 502	Geography of Appalachia	
GEO 504	Geography of Europe	
GEO 505	Political Geography	
GEO 506	Population Geography	
GEO 508	Geog of South & Middle America	
GEO 510	Urban Geography	
GEO 522	Environmental Geography	
GEO 523	Cartography & GIS	
GEO 525	Climatology	
GEO 530	GIS-Raster Analysis	
GEO 531	Remote Sensing & Photogram	
GEO 532	Enterprise GIS	
GEO 533	GPS & Mobile Geospatial T	
GEO 554	Drones:Remote Sensing & GIS	
GEO 617	Seminars in Geography	
GEO 618	Seminars in Geography	

GEO 619	Seminars in Geography	
GEO 620	Problems in Environ Geog	
GEO 623	Regions of North America	
GEO 631	Applied GIS Projects	
GEO 634	GIS Databases & Programming	
GEO 690	Internship in Geography	
Total Credit Hours		33-35

¹ Requirement waived if GEO 440 Spatial Statistics and GIS passed with a grade of C or better at the undergraduate level.

Some GEO courses may not be listed here, but still count for credit in the program; see an advisor. Of the credit hours required for the degree, at least half must be at the 600 level.

Geography, M.S. 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 (<http://www.marshall.edu/geography/>), e-mail geography@marshall.edu or call 304-696-4364.

Admission Requirements

M.S. applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate (<http://www.marshall.edu/graduate/>). Potential M.S. applicants must contact the department to ensure that their thesis research interests are compatible with at least one faculty member. In addition, M.S. applicants must:

- Submit a statement of purpose/research interest with the graduate application;
- Submit a curriculum vitae (CV) and/or resume with the graduate application;
- Submit two letters of recommendation (from employers or faculty members) with the graduate application;
- Submit GRE (Graduate Record Examination) scores with the graduate application;
- Have a minimum undergraduate GPA of 3.5 or minimum GRE scores of: Verbal greater than or equal to 150 and Quantitative greater than or equal to 150 and Writing greater than or equal to 4.5).

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 (<http://www.marshall.edu/geography/>). For more information about graduate assistantships at Marshall University, please see www.marshall.edu/graduate (<http://www.marshall.edu/graduate/>).

For more information about other financial support, please see www.marshall.edu (<http://www.marshall.edu/>).

Program Requirements

Candidates for the master's degree must meet the general requirements for the Graduate College and complete a minimum of 34 total credits.

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.

Plan of Study

Code	Title	Credit Hours
Required Courses		
Select one GEO GIScience course from the following:		3-4
GEO 523	Cartography & GIS	
GEO 526	Principles of GIS	
GEO 529	Princ of GIS 2-Vector Analysis	
GEO 530	GIS-Raster Analysis	
GEO 531	Remote Sensing & Photogram	
GEO 532	Enterprise GIS	
GEO 533	GPS & Mobile Geospatial T	
GEO 554	Drones:Remote Sensing & GIS	
GEO 631	Applied GIS Projects	
GEO 634	GIS Databases & Programming	
GEO 690	Internship in Geography (using GIScience)	
GEO 580	Special Topics (GIScience Topic)	
GEO 581	Special Topics (GIScience Topic)	
GEO 582	Special Topics (GIScience Topic)	
GEO 583	Special Topics (GIScience Topic)	
GEO 585	Independent Study (GIScience Topic)	
GEO 586	Independent Study (GIScience Topic)	
GEO 587	Independent Study (GIScience Topic)	
GEO 588	Independent Study (GIScience Topic)	
GEO 540	Spatial Statistics and GIS ¹	4
GEO 601	Colloquium in Geography	3
GEO 615	Geographic Thought	3
GEO 616	Geographical Research Methods	3
GEO 679	Applied Project	3
GEO 681	Thesis	6
Electives		
Select 8-9 credits of the following:		8-9
GEO 502	Geography of Appalachia	
GEO 504	Geography of Europe	
GEO 505	Political Geography	
GEO 506	Population Geography	
GEO 508	Geog of South & Middle America	
GEO 510	Urban Geography	
GEO 522	Environmental Geography	
GEO 523	Cartography & GIS	
GEO 525	Climatology	
GEO 530	GIS-Raster Analysis	
GEO 531	Remote Sensing & Photogram	
GEO 532	Enterprise GIS	
GEO 533	GPS & Mobile Geospatial T	
GEO 554	Drones:Remote Sensing & GIS	
GEO 617	Seminars in Geography	
GEO 618	Seminars in Geography	
GEO 619	Seminars in Geography	
GEO 620	Problems in Environ Geog	
GEO 623	Regions of North America	
GEO 631	Applied GIS Projects	

GEO 634	GIS Databases & Programming	
GEO 690	Internship in Geography	
Total Credit Hours		33-35

¹ Requirement waived if GEO 440 Spatial Statistics and GIS passed with a grade of C or better at the undergraduate level.

Some GEO courses may not be listed here, but still count for credit in the program; see an advisor. Of the credit hours required for the degree, at least half must be at the 600 level.

Geography, Minor

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

Code	Title	Credit Hours
GEO 623	Regions of North America (Required Course)	3
Select at least one of the following:		3
GEO 502	Geography of Appalachia	
GEO 504	Geography of Europe	
GEO 508	Geog of South & Middle America	
GEO 617	Seminars in Geography	
GEO 618	Seminars in Geography	
GEO 619	Seminars in Geography	
Total Credit Hours		6

Physical Geography

Code	Title	Credit Hours
Select at least two of the following:		6
GEO 522	Environmental Geography	
GEO 525	Climatology	
GEO 530	GIS-Raster Analysis	
GEO 531	Remote Sensing & Photogram	
GEO 617	Seminars in Geography	
GEO 618	Seminars in Geography	
GEO 619	Seminars in Geography	
GEO 620	Problems in Environ Geog	
Total Credit Hours		6

Human Geography

Code	Title	Credit Hours
Select at least two of the following:		6
GEO 505	Political Geography	
GEO 506	Population Geography	
GEO 510	Urban Geography	
GEO 511	Health and Medical Geography	
GEO 522	Environmental Geography	
GEO 617	Seminars in Geography	

GEO 618	Seminars in Geography	
GEO 619	Seminars in Geography	
GEO 620	Problems in Environ Geog	
Total Credit Hours		6

Geographic Information Systems/Remote Sensing

Code	Title	Credit Hours
Select at least two of the following:		6
GEO 523	Cartography & GIS	
GEO 526	Principles of GIS	
GEO 529	Princ of GIS 2-Vector Analysis	
GEO 530	GIS-Raster Analysis	
GEO 531	Remote Sensing & Photogram	
GEO 532	Enterprise GIS	
GEO 533	GPS & Mobile Geospatial T	
GEO 540	Spatial Statistics and GIS	
GEO 554	Drones:Remote Sensing & GIS	
GEO 617	Seminars in Geography	
GEO 618	Seminars in Geography	
GEO 619	Seminars in Geography	
GEO 631	Applied GIS Projects	
GEO 634	GIS Databases & Programming	
GEO 690	Internship in Geography (must be GIScience approved in advance)	
Total Credit Hours		6

Geospatial Information Science-Advanced, Graduate Certificate

Program Description

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.

Oversight of the GIScience Certificate Program

The interdisciplinary GIScience Curriculum Committee oversees the program, approves Special Topics and Independent Study courses, and approves changes to the program. Additional GIScience faculty members and administrative stakeholders may be added to the committee by consensus of the members or at the request of their dean. As members leave university service, they may be replaced at the discretion of their department.

Current members and their departments/colleges are:

- Anne Axel, Biological Sciences/COS
- Richard Begley, Engineering/CITE
- David Cartwright, Computer and Information Technology/COS
- Jeffrey Huffman, Engineering/CITE
- Tom Jones, Natural Resources and the Environment/COS
- Min Kook Kim, Natural Resources and the Environment/COS
- Jamie Leonard, Geography/COLA, Director of Undergraduate and Graduate Certificate Programs
- Brian Morgan, Computer and Information Technology/COS
- Bill Niemann, Geology/COS
- Mitchell Scharman, Geology/COS
- Jayme Waldron, Biological Sciences/COS
- Anita Walz, Geography/COLA
- Jamie Wolfe, CITE/CEGAS

Administrative Home

James Leonard, Ph.D., Geography Department, College of Liberal Arts, is the director of the program and can provide students with information, advising, forms, and other assistance.

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 the Graduate College a Secondary Program Request form at www.marshall.edu/graduate (<http://www.marshall.edu/graduate/>).

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 Requirements

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.

Plan of Study

Code	Title	Credit Hours
Required Courses		
<i>Advanced Analysis Course</i>		
Select at least one of the following: ¹		4
GEO 529	Princ of GIS 2-Vector Analysis	
GEO 530	GIS-Raster Analysis	
<i>Remote Sensing Course</i>		
Select at least one of the following: ²		4
GEO 531	Remote Sensing & Photogram	
BSC/PS 510	Remote Sensing/GIS Appl	
BSC/PS 511	Dgtl Image Proc/GIS Model	
Special Topics in Remote Sensing course		
<i>Application Course, Research Methods or Internship</i>		
Select at least one (minimum of 3 credit hours) of the following:		4
GEO 631	Applied GIS Projects	
GEO 690	Internship in Geography (must be GIScience approved in advance)	
GIScience Electives		
Select electives from the following:		
BSC/PS 510	Remote Sensing/GIS Appl	
BSC/PS 511	Dgtl Image Proc/GIS Model	
GEO 529	Princ of GIS 2-Vector Analysis	
GEO 530	GIS-Raster Analysis	
GEO 531	Remote Sensing & Photogram	
GEO 532	Enterprise GIS	
GEO 533	GPS & Mobile Geospatial T	
GEO 540	Spatial Statistics and GIS	
GEO 631	Applied GIS Projects	
GEO 690	Internship in Geography (must be GIScience approved by advisor in advance)	
IS 645	Geographic Information Systems	
Special Topics course as approved in advance by the GIScience Curriculum Committee		
Independent Study courses as approved by advisor in advance		
Total Credit Hours		12

¹ 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.

² 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.

Geospatial Information Science-Basic, Graduate Certificate

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 the Graduate College a Secondary Program Request form at <https://www.marshall.edu/graduate> (<http://www.marshall.edu/graduate/>).
- 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 Requirements

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 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;
- 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, or additional work at the doctoral level.

Plan of Study

Code	Title	Credit Hours
GIScience Required Course		
GEO 526	Principles of GIS ¹	4
GIScience Electives		
Select at least two of the following:		8
BSC/PS 510	Remote Sensing/GIS Appl	
BSC/PS 511	Dgtl Image Proc/GIS Model	
GEO 529	Princ of GIS 2-Vector Analysis	
GEO 530	GIS-Raster Analysis	
GEO 531	Remote Sensing & Photogram	
GEO 532	Enterprise GIS	
GEO 533	GPS & Mobile Geospatial T	
GEO 540	Spatial Statistics and GIS	
GEO 631	Applied GIS Projects	
GEO 690	Internship in Geography (must be GIScience approved by advisor in advance)	
IS 645	Geographic Information Systems	

PS 670	Advanced Practicum (must be GIScience approved by advisor in advance)
Special Topics courses as approved by advisor in advance	

Total Credit Hours

12

- ¹ Requirement waived if GEO 426 Principles of GIS or its equivalent taken as an undergraduate

History, M.A.

Program Description

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

Applications to the program are due by March 1st for the fall semester and by October 1st for the spring semester. Applications submitted after the due dates will be considered, but no later than August 1st for the Fall semester and December 1st for the spring semester. Applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www.marshall.edu/graduate (<http://www.marshall.edu/graduate/>).

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;
- a 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);
- 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 HST 600 Methodology, Seminar in Historical Methods.

Thesis Option

Students who choose the thesis option must complete HST 681 Thesis 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.

History, Minor

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.

Humanities, M.A. 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 (<http://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 undergraduate grade point average of 3.0 on a scale of 4 from the bachelor's degree transcript, 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:

Code	Title	Credit Hours
HUMN 604	Expository Wrtng for Research	3
Select one of the following Core Courses:		3
HUMN 600	Intro to Study in Humanities	
HUMN 601	Literary Theory & Criticism	
HUMN 602	Historical Studies	
HUMN 603	History & Theory of the Arts	
HUMN 605	Wstrn Trdtns/Contemp Cultures	

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 Independent Research Symposium and HUMN 681 Independent Research Symposium). Students electing the project option complete a total of 39 hours, three of which are the project (HUMN 680 Independent Research Symposium).

With both options, students must pass a comprehensive examination. All individual plans of study are organized according to the following general structure:

Code	Title	Credit Hours
Humanities Core		
HUMN 600	Intro to Study in Humanities	3
HUMN 604	Expository Wrtng for Research	3
Select two of the Following:		6
HUMN 601	Literary Theory & Criticism	
HUMN 602	Historical Studies	
HUMN 603	History & Theory of the Arts	
HUMN 605	Wstrn Trdtns/Contemp Cultures	
Concentration		
Select a minimum of 15 hours from one of the four following areas: A&S, CULS, HIST, LITS		15
Program Electives		
Select 3-12 hours		3-12
Independent Research Project or Thesis		
Select one of the following:		3-6
Independent Research Project (3 hours)		
Thesis (6 hours)		
Total Credit Hours		33-45

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 HUMN 680 Independent Research Symposium 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, Classics, Communication Studies, English, History, Journalism and Mass Communications, and Philosophy also may be appropriate for the plan of study in Humanities.

Latin, Graduate Certificate

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.

Admission Requirements

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.

Nonprofit Management, Graduate Certificate

The Graduate Certificate in Nonprofit Management is designed to enhance job skills, earn recognition, increase marketability, and meet professional development requirements. This is an interdisciplinary

program housed in the Political Science department. The coursework focuses on the practical aspects of managing nonprofits, as well as the theoretical underpinnings of all organizations. With advisor approval, certificate program course credit may be applied towards a graduate degree in either Public Administration or Business Administration.

Admission Requirements

Students already enrolled in the Master of Public Administration or the Master of Business Administration should submit a Secondary Program Request form (www.marshall.edu/graduate/secondary-program-request-form) to Graduate Admissions. A prospective certificate-only student should apply for admission to Marshall University as a Professional Development student and select the application form for the Certificate in Nonprofit Management.

Program Requirements

The program requires 18 hours. All classes for this certificate are online.

Plan of Study

Code	Title	Credit Hours
PSC 532	Nonprofit Management	3
PSC 533	Public Adm & Policy Dev	3
PSC 553	Governmnt Budgetary Admin	3
MGT 672	Organizational Behavior	3
LS 626	Fundraising Management	3
Advisor Approved Course		3
Total Credit Hours		18

Philosophy, Minor

The minor in philosophy consists of any two 500-level courses in Philosophy.

Psychology, Accelerated Master's Degree

Undergraduates accepted to an Accelerated Master's Degree program can begin taking master's level classes while still in the B.A. program. These graduate credits can be used for both the undergraduate and graduate level coursework and will help facilitate an easy and fast transition into the master's or doctoral program if a student is accepted. In order to be accepted into the accelerated master's program, please see your advisor to see if you qualify for one of these positions.

Admission Requirements 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 have completed an introductory statistics course

- must have completed an experimental psychology course
- must have completed at least nine hours of psychology at the 300-400 level.
- must meet the admission requirements of the chosen master's degree program.

For admission to the AGD in psychology, students must meet the requirements established by the Graduate College (GCAMD). In addition, applicants must have completed an Introductory Statistics course and an experimental psychology course and at least nine hours of psychology at the 300-400 level. Students admitted to the AGD program are being admitted to the general psychology MA program. Admission to the M.A. program with an emphasis in clinical psychology or school psychology requires a separate application and additional requirements must be met as outlined in the graduate catalog.

AGD Credits: 12 credits that must be approved in the plan of study.

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 AGD plan of study. This form is available from the Graduate College office or www.marshall.edu/graduate-council.files/2012/11/AMDPlanofStudy.pdf (<http://www.marshall.edu/graduate-council.files/2012/11/AMDPlanofStudy.pdf>). Any changes to the AGD plan of study must be approved by the Undergraduate Advisor and Director of Graduate Studies in writing to the Dean of the Graduate College.
2. The student's acceptance into the AGD program is subject to the approval of the plan of study by the Dean of the Graduate College.
3. Students accepted into the AGD 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.

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

Withdrawal from the AGD

A student may withdraw at any time from the AGD 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.

Psychology, M.A.

Program Description

The general psychology 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 is required of all students. The remaining hours are selected in consultation with an advisor to help meet students' academic and professional goals.

Note: 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 the general 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 Clinical Psychology sequence, which is designed to prepare graduates for entry-level clinical positions.

Admission Requirements

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 program's deadline to be considered for admission. It should be noted that the application process is competitive. It is recommended that scores on the GRE Verbal section not be lower than 146 and scores on the Quantitative section not be lower than 140. Likewise, it is recommended that applications have a minimum combined total on those two sections of 297 (revised scoring beginning in Fall 2011). Undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale for all previously completed undergraduate university work. Completion of the following prerequisite courses is required for admission to any M.A. psychology program: Elementary or Introductory Statistics, Experimental Psychology or Research Methods; Abnormal Psychology; Learning, Social Psychology and Developmental Psychology. These prerequisite courses must have been passed at the undergraduate level with a grade no lower than a *B*.

Admission Priority Deadlines

Applications for admission to the General Psychology Master's, School Psychology Emphasis, and Behavioral Statistics Certificate programs are due by the following dates:

Domestic Applicants

Term	Due Date
Fall	August 1
Spring	December 1
Summer	May 1

International Applicants

Term	Due Date
Fall	June 15
Spring	October 15
Summer	March 15

Priority Deadline for the Clinical Emphasis and Post Master's Certificate is January 31st for Fall Term.

Application Process

All applicants should follow the admissions process described in the Graduate Catalog. Application materials and current program information can be obtained by contacting the Marshall University Psychology Department, the Marshall University Graduate College Admissions office website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission (<http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>), or by consulting the Psychology Department website at www.marshall.edu/psych/ (<https://www.marshall.edu/psych/>). (Submit all materials to the Graduate Admissions Office.)

Conditional Admission

Students may be admitted to the general psychology master's program with "Conditional" status if they are missing certain official documentation supporting their application. Examples of such official documentation include a final transcript from their college or university documenting the successful completion of the bachelor's degree. This may occur when a student applies to the general psychology master's program while completing the final semester or quarter of their undergraduate program. Another typical situation includes official documentation of GRE scores. Other situations may also occur requiring an applicant to be admitted with "Conditional" status. Once the missing documentation is received by the graduate admissions office the applicant's status may be changed from "Conditional" to "Full" status.

Provisional Admission

Students may be admitted to the general 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 Inter Behavioral Stat and PSY 506 Psychometrics) 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 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 undergraduate 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 Inter Behavioral Stat); 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. Students will *not* be provisionally admitted to the area of emphasis in clinical psychology or the post master's certificate in clinical psychology.

Students granted provisional admission status must take:

Code	Title	Credit Hours
PSY 517	Inter Behavioral Stat	3
PSY 506	Psychometrics	3
Select two of the following:		6
PSY 674	Biological Bases of Behavior	
PSY 672	Cognition and Emotion	
PSY 606	Adv Social Psychology	
or PSY 503	Applied Social Psychology	
PSY 615	Adv Developmental Psychology	
or PSY 617	Applied Dev Psych	

No student may take more than 18 hours in the psychology department 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.

Program Requirements

General Requirements

The general psychology 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 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 of 24 credits for a total of 50 credits.

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 graduate 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.

Additional Coursework

The general psychology M.A. program requires a minimum of 12 additional credit hours beyond the required core. These 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.

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. It is open to individuals who have received a bachelor's degree from a regionally accredited college / university **or** who already hold a master's or doctoral degree in a non-clinical area of psychology and whose courses meeting the required core courses were completed more than seven (7) years prior to admission, as these courses will no longer be considered for transfer. Any student who is fully admitted to the Psychology M.A. program may apply for admission to the clinical psychology area of emphasis (please see *Note* under "Application Process.") More information and application materials are available from advisors and from the Clinical area coordinator.

Required Courses

Those courses marked with ¹ are restricted to students in the clinical track. 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.

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.

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 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.

Plan of Study

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

Code	Title	Credit Hours
Core Requirements		
PSY 517	Inter Behavioral Stat ¹	3
PSY 674	Biological Bases of Behavior	3
PSY 672	Cognition and Emotion	3
Select one of the following:		3
PSY 606	Adv Social Psychology ²	3
PSY 503	Applied Social Psychology ²	
PSY 615	Adv Developmental Psychology	3
or PSY 617	Applied Dev Psych	
PSY 506	Psychometrics ³	3
PSY 605	Ethic Legal & Prof Issue Psych	3
PSY 692	Seminar	3
Total Credit Hours		24

¹ *Note:* If PSY 417 Inter Behavioral Stat 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.

² *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.

³ *Note:* If PSY 406 Psychometrics 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.

Area of Emphasis in Clinical Psychology

Code	Title	Credit Hours
Requirements Beyond the Core		
PSY 731	Psychotherapy I ¹	3
PSY 732	Psychotherapy II ¹	3
PSY 608	Differ Diagnosis & Treat Plan ¹	3
PSY 633	Individual Psychotherapy ¹	3
PSY 610	Assessment of Adults ¹	3

PSY 611	Assessment of Children ¹	3
PSY 620	Assessment Adults Practicum ¹	3
PSY 621	Assessment Children Practicum ¹	3
PSY 634	Group Therapy ¹	3
PSY 670	Clinical Practicum ¹	3
PSY 680	Clinical Internship ¹	3

Electives

PSY 619	Psychotherapy with Children ¹	3
PSY 630	Adult Diagnosis & Therapy ¹	
PSY 635	Child/Fam Diagn Therapy ¹	
PSY 671	Clinical Practicum ¹	

Total Credit Hours	33
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¹ Restricted to students in the Clinical Track.

Area of Emphasis in School Psychology

The following courses are required for the School Psychology area of emphasis. Most of these courses are offered on the South Charleston campus.

Code	Title	Credit Hours
Core Requirements		
PSY 674	Biological Bases of Behavior	3
or SPSY 674	Bio Bases School Psych	
PSY 623	Experimental Design	3
PSY 672	Cognition and Emotion	3
or SPSY 675	Cognitive/Emo Bases Sch Psy	
PSY 526	Cross Cultural Psychology	3
PSY 615	Adv Developmental Psychology	3
or SPSY 616	Typ & Atyp Child Dev	
PSY 605	Ethic Legal & Prof Issue Psych	3
PSY 506	Psychometrics	3
or SPSY 621	Data-Based Decision I	
PSY 692	Seminar	3
Area of Emphasis Requirements		
SPSY 601	Prof Comp I Schools	3
SPSY 617	Ind Svc I Consultation	3
SPSY 618	Dir Svc I Instruct & Bmod	3
SPSY 619	Dir Svc II-Ind Grp Csl	3
or PSY 619	Psychotherapy with Children	
Total Credit Hours		36

Psychology, Minor

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.

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 required courses and a specialty area of emphasis (concentration) of six credit hours in Urban Administration or Nonprofit Management. The core consists of 30 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 submit a portfolio for approval by the MPA Governing Advisory Committee during their final semester as part of the PSC 618 course, Seminar in Public Administration.

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/>).

In addition, applicants must have:

- A current resume or curriculum vitae.
- A personal statement describing the applicant's interest in the program and goals from program completion.

Program Requirements

The M.P.A. program is composed of the following:

Code	Title	Credit Hours
Core Curriculum		30
Concentration		6
Total Credit Hours		36

Plan of Study

The M.P.A. will consist of a core curriculum to include the following:

Code	Title	Credit Hours
Core Curriculum		
ACE 689	Grant Proposal Writing	3
LS 625	Human Resources Management	3
MGT 672	Organizational Behavior	3
PSC 532	Nonprofit Management	3
PSC 533	Public Adm & Policy Dev	3
PSC 553	Government Budgetary Admin	3
PSC 604	Data Analysis	3
PSC 616	Public Adm Scope and Practice	3
PSC 618	Sem Public Administration	3
PSC 621	Urban Administration	3

Concentration

Students will then develop a concentration of six credit hours in one of the following:

Urban Administration:

- GEO 526 Principles of GIS
or GEO 529 for students who took GEO 426 as an undergraduate)

- GEO 510 Urban Geography
or GEO 524 Transportation Geography

Nonprofit Management

- LS 640 Legal Issues NPO & Public

- PSC 660 Sem in Policy Analysis

Total Credit Hours 36

Public History, Graduate Certificate

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, except that neither a personal statement nor Graduate Record Examination (GRE) scores are required.
- 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 (<http://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.

Plan of Study

Code	Title	Credit Hours
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Required Courses

HST 537	Intro Public History	3
HST 640	Archives and Special Coll	3
HST 680	Public History Internship	3

Select at least two of the following: 6

- HST 524 US Science & Technology

- HST 538 Stuff and Things in History

- HST 635 Oral/Local History Seminar

Select one of the following: 3

- HST 524 US Science & Technology

- HST 538 Stuff and Things in History

- HST 635 Oral/Local History Seminar

- ANT 567 Culture through Ethnography

GEO 506	Population Geography	
JMC 575	Documentary Journalism	
MKT 511	Marketing and Management	
SOC 615	Applied Demography	
Total Credit Hours		18

Certain Special Topics in the Graduate Humanities program may also be used. Students should check with the certificate administrator when selecting their courses.

Sociology, Accelerated Master's Degree

An Accelerated Master's Degree is available for qualified undergraduate sociology majors. See the Accelerated Graduate Degree section in this catalog for details.

Sociology, M.A. 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, migration, world systems/globalization, social institutions (religion, family, work and occupations, health care, sports, politics and the economy), criminology, gerontology, leisure and recreation, 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. Please note that while the GRE is not required for admission into the program, students are strongly encouraged to take the exam.

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;
- 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 and fulfill the requirements stated above will be considered for full admission. The Sociology program may admit applicants provisionally, on a limited basis, at the discretion of the program. The Sociology program may admit applicants on a conditional basis.

Program 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 M.A. in Sociology must review her/his academic plans with the department's graduate program director; 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 for the Thesis Option, or completion of 36 hours of coursework plus SOC 679 Problem Report 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 Graduate Program Director 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. The comprehensive exam will be scheduled twice a year, once in the fall and once in the spring. On the first attempt at an exam, if a student fails any one question, he or she will be asked to consult readings, re-write, and re-submit a new answer to the Graduate Program Director within 7 days of receiving the committee's evaluation. If the student fails a second attempt on this question, he or she must wait until the following semester to retake that portion. If a student fails two or more questions of the comprehensive exam on the first attempt, he or she will re-take the exam the following semester. Students who fail all or any one portion of the comprehensive exam in the second semester will not be permitted to continue in the program.

Plan of Study Core Requirements

All students are required to complete 15 hours of core courses:

Code	Title	Credit Hours
Core Courses		
SOC 600	Classical Sociological Theory	3
SOC 601	Contemp Sociological Theory	3
SOC 605	Qual Res Methods and Analysis ¹	3
SOC 606	Quantitative Res Meth Analysis ¹	3
SOC 609	Professional Development	3
Total Credit Hours		15

¹ SOC 605 Qual Res Methods and Analysis and SOC 606 Quantitative Res Meth Analysis 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)

The department offers a variety of electives which are bundled in four disciplinary focus areas. Graduate level courses from other departments may be taken with approval from the Graduate Program Director and the course instructor.

To guarantee breadth of education, all students must take courses from more than one focus area. 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 or declare a minor.

Thesis option: Thesis related to one focus, one course from each of the three remaining focus areas (9 hrs.).

Non-thesis option: One course from each focus area 1 through 4 (12 hours) and additional courses from one primary area, or declare a minor (9 hrs.).

Code	Title	Credit Hours
Focus Area 1: Organizations and Institutions		
SOC 508	The Family	3
SOC 533	Sociology of Work	3
SOC 550	Sociology of Religion	3
SOC 580	Special Topics (dependent on content)	1-4
SOC 668	Seminar (dependent on content)	1-3
Focus Area 2: Stratification and Diversity		
SOC 523	Social Class, Power & Conflict	3
SOC 525	Race and Ethnicity	3
SOC 532	Sociology of Appalachia	3
SOC 555	Sociology of Sex and Gender	3
SOC 655	Feminist Social Theory	3
SOC 580	Special Topics (dependent on content)	1-4
SOC 668	Seminar (dependent on content)	1-3
Focus Area 3: Demography, Health, and Human Environments		

SOC 501	Population and Human Ecology	3
SOC 528	Medical Sociology	3
SOC 532	Sociology of Appalachia	3
SOC 540	Intro to the Soc of Aging	3
SOC 542	Urban Sociology	3
SOC 552	Soc Of Death & Dying	3
SOC 640	Problems Aging Society	3
SOC 580	Special Topics (dependent on content)	1-4
SOC 668	Seminar (dependent on content)	1-3

Focus Area 4: Social Problems and Collective Behavior

SOC 513	Social Movements & Soc Change	3
SOC 520	Criminology	3
SOC 560	The Holocaust and Genocide	3
SOC 602	Contemp Social Change	3
SOC 620	Criminology	3
SOC 640	Problems Aging Society	3
SOC 580	Special Topics (dependent on content)	1-4
SOC 668	Seminar (dependent on content)	1-3

Sociology, Minor

A minor in sociology is earned by taking at least 9 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.

Women's Studies, Graduate Certificate

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.

College of Science

Contacts: Dr. Charles Somerville, Dean

Website: <http://www.marshall.edu/cos/>

cos@marshall.edu

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- Biological Sciences, M.S. (p. 276)
- Chemistry, M.S. (p. 277)
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- Digital Forensics, Graduate Certificate (p. 280)
- Forensic Science, M.S. (p. 281)
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- Mathematics, M.A. (p. 282)
- Mathematics, Minor (p. 284)
- Physics and Applied Sciences, M.S. (p. 284)
- Physics, M.S. (p. 285)

Courses

Biological Science

BSC 501 Ichthyology 4 Credit hours

Anatomy, physiology, ecology, zoogeography, economic importance and classification of major groups and representative local species of fishes. 2 lec-2 lab and field.

Grade Mode: Normal Grading Mode

BSC 504 Cellular Physiology 4 Credit hours

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.

Grade Mode: Normal Grading Mode

BSC 505 Economic Botany 3 Credit hours

Plants used by man for food, ornamental purposes, building materials, textiles and other industrial purposes: economic importance of conservation. No laboratory.

Grade Mode: Normal Grading Mode

BSC 506 Herpetology 4 Credit hours

A survey of the reptiles and amphibians of the world with special emphasis placed on forms resident to West Virginia aspects of zoogeography, anatomy, taxonomy, and behavior. 2 lec-2 lab.

Grade Mode: Normal Grading Mode

BSC 508 Ornithology 4 Credit hours

An introduction to avian biology: Identification, distribution, migration and breeding activities of birds. 2 lec-4 lab.

Grade Mode: Normal Grading Mode

BSC 509 Mammalogy 4 Credit hours

A study of the structural features, evolution and classification of the mammals; other topics will include ecology, zoogeography, behavior, reproductive strategies, physiological adaptations to extreme environments and economic aspects. 2 lec-2 lab.

Grade Mode: Normal Grading Mode

BSC 510 Remote Sensing/GIS Appl 4 Credit hours

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.

Grade Mode: Normal Grading Mode

BSC 511 Dgtl Image Proc/GIS Model 4 Credit hours

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.

Grade Mode: Normal Grading Mode

BSC 513 Prin of Organic Evolution 3 Credit hours

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.

Grade Mode: Normal Grading Mode

BSC 516 Plant Taxonomy 4 Credit hours

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.

Grade Mode: Normal Grading Mode

BSC 517 Biostatistics 3 Credit hours

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. Permission (consistent with MTH 518 description)

Grade Mode: Normal Grading Mode

BSC 520 Plant Physiology 4 Credit hours

Experimental study of plant life processes to include applicable biophysical and biochemical principles. 2 lec-4 lab.

Grade Mode: Normal Grading Mode

BSC 521 Phycology 4 Credit hours

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.

Grade Mode: Normal Grading Mode

BSC 522 Animal Physiology 4 Credit hours

Physiological principles operating in cells, organs, and systems of animals, with a focus on vertebrate, including human, function.

Grade Mode: Normal Grading Mode

BSC 524 Animal Parasitology 4 Credit hours

Morphology, life histories, classification, and host relationships of common parasites. 2 lec-4 lab.

Grade Mode: Normal Grading Mode

BSC 525 Systematics 3 Credit hours

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).

Grade Mode: Normal Grading Mode

BSC 528 Neuroscience 3 Credit hours

The fundamentals of cellular and systems neuroscience, with application towards understanding current research and biomedical problems.

Grade Mode: Normal Grading Mode

BSC 530 Plant Ecology 4 Credit hours

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.

Grade Mode: Normal Grading Mode

BSC 531 Limnology 4 Credit hours

The study of inland waters; ecological factors affecting lake and stream productivity and various aquatic communities. 2 lec-4 lab.

Grade Mode: Normal Grading Mode

BSC 538 Emerging Infectious Diseases 3 Credit hours

Introduces students to infectious diseases that are either newly emergent or have returned to prominence within the last decade.

Grade Mode: Normal Grading Mode

BSC 543 Microbial Genetics	3 Credit hours	BSC 608 Plant Growth & Development	4 Credit hours
Microbial Genetics covers the essential functions of DNA replication and gene expression in prokaryotic cells. The course includes molecular genetics of bacteria and phages, bioinformatics and discussion of laboratory techniques.		Comprehensive advanced study of correlative growth in plants with emphasis on germination, dormancy, growth substances and physiological phenomena associated with phases of development.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
BSC 545 Microbial Ecology	3 Credit hours	BSC 610 Adv Vert Morphology	3 Credit hours
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.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
BSC 550 Molecular Biology	3 Credit hours	BSC 620 Taxonomy Vascular Plants	1-2 Credit hours
Advanced principles in molecular function emphasizing current research using recombinant DNA methodology. (PR: BSC 322 or equivalent)		Field studies in the taxonomy of higher plants. (Limited to 4 hours credit per student).	
Grade Mode: Normal Grading Mode		Co-req: BSC 622	
BSC 556 Genes and Development	3 Credit hours	Grade Mode: Normal Grading Mode	
An in depth study of the genetic mechanisms of complex organismal development including cell specification, induction and morphogenesis.		BSC 621 Taxonomy Vascular Plants	1-2 Credit hours
Grade Mode: Normal Grading Mode		Field studies in the taxonomy of higher plants. (Limited to 4 hours credit per student).	
BSC 560 Conservation Biology	3 Credit hours	Grade Mode: Normal Grading Mode	
This course focuses on the North American model of wildlife conservation (and its history), principles of biology diversity, threats to habitats and species of concern, and conservation policy. Primarily for teachers in the biological sciences, general and applied sciences. Includes fieldwork, seminars, and demonstrations related to conservation. 2 lec-4 lab.		BSC 622 Taxonomy Vascular Plants	1-2 Credit hours
Grade Mode: Normal Grading Mode		Field studies in the taxonomy of higher plants. (Limited to 4 hours credit per student).	
BSC 580 Special Topics	1-4 Credit hours	Co-req: BSC 620	
(PR: Permission)		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		BSC 625 Advanced Physiology	4 Credit hours
BSC 581 Special Topics	1-4 Credit hours	Lecture, current literature and introduction to research in physiological systems. 3 lec-3 lab.	
(PR: Permission)		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		BSC 631 Animal Ecology	4 Credit hours
BSC 582 Special Topics	1-4 Credit hours	A study of population and behavior ecology; community dynamics and field techniques. 2 lec-4 lab.	
(PR: Permission)		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		BSC 640 Cell Bio & Biotechnology	3 Credit hours
BSC 583 Special Topics	1-4 Credit hours	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 commercialization.	
(PR: Permission)		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		BSC 644 Quantitative Ecology	3 Credit hours
BSC 585 Independent Study	1-4 Credit hours	An introduction to statistical analyses using presence absence, mark-recapture, and count data to estimate population parameters, such as occupancy and survival.	
(PR: Permission)		Grade Mode: Normal Grading Mode	
Grade Mode: Credit/No Credit Grade Only		BSC 649 Wetland Ecology	3 Credit hours
BSC 586 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
(PR: Permission)		BSC 650 Special Problems	1-3 Credit hours
Grade Mode: Credit/No Credit Grade Only		By permission of adviser.	
BSC 587 Independent Study	1-4 Credit hours	Grade Mode: Credit/No Credit Grade Only	
(PR: Permission)		BSC 651 Special Problems	1-3 Credit hours
Grade Mode: Credit/No Credit Grade Only		By permission of adviser.	
BSC 588 Independent Study	1-4 Credit hours	Grade Mode: Credit/No Credit Grade Only	
(PR: Permission)		BSC 652 Special Problems	1-3 Credit hours
Grade Mode: Credit/No Credit Grade Only		By permission of adviser.	
BSC 601 Vertebrate Embryology	4 Credit hours	Grade Mode: Credit/No Credit Grade Only	
Vertebrate development based on frog, chick and pig embryos. 2 lec-4 lab.			
Grade Mode: Normal Grading Mode			

BSC 660 Seminar I**2 Credit hours**

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.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**BSC 661 Topics in Biological Sciences****2 Credit hours**

In depth group discussion of current biological issues.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**BSC 662 Seminar II****1 Credit hour**

Oral presentation of individual topics.

Pre-req: BSC 660.**Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**BSC 679 Problem Report****1-4 Credit hours**

Preparation and completion of a written report from experimental or field research in biological sciences. (PR: permission)

Grade Mode: Normal Grading Mode**BSC 680 Special Topics****1-4 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**BSC 681 Thesis****1-6 Credit hours**

By permission of adviser.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**BSC 716 Adv Cell Phys Nurse Anesthesia****2 Credit hours**

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. Analyze types and rules of various cell membrane receptors on anesthesia process.

Grade Mode: Normal Grading Mode**BSC 717 Adv Ana Phy Path Nurse 1****3 Credit hours**

Anatomy, Physiology, pathophysiology and anesthetic considerations related to the respiratory and renal systems.

Grade Mode: Normal Grading Mode**BSC 718 Adv Ana Phy Path Nurse 2****3 Credit hours**

Anatomy, physiology, pathophysiology and anesthetic considerations related to the cardiovascular system.

Grade Mode: Normal Grading Mode**BSC 719 Adv Ana Phy Path Nurse 3****3 Credit hours**

Anatomy, physiology, pathophysiology and anesthetic considerations related to the nervous and endocrine systems.

Grade Mode: Normal Grading Mode

Chemistry

CHM 511 Modern Instrument Methods**4 Credit hours**

This course investigates the theory and functional aspects of modern analytical instrumentation. Emphasis is placed on the components of instruments and the applicability of various techniques to specific analytical problems.

Pre-req: CHM 307 with a minimum grade of C or CHM 357 with a minimum grade of C.

Grade Mode: Normal Grading Mode**CHM 540 Thermodynamics****3 Credit hours**

An introduction to chemical thermodynamics and statistical mechanics. 3 lec.

Grade Mode: Normal Grading Mode**CHM 548 Adv Inorganic Chemistry I****4 Credit hours**

Study of physical and chemical properties and periodic relationships of inorganic materials. 3 lec, 2 lab (PR: CHM 356, CHM 307, or CHM 357)

Grade Mode: Normal Grading Mode**CHM 549 Adv Inorganic Chem II****3 Credit hours**

A detailed consideration of bonding, structure, reaction rates and equilibrium involving inorganic materials. 3 lec.

Grade Mode: Normal Grading Mode**CHM 551 Biological Mass Spectrometry****4 Credit hours**

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.

Grade Mode: Normal Grading Mode**CHM 565 Adv Organic Chemistry I****3 Credit hours**

Studies of the dynamics of organic reactions with emphasis on mechanisms and stereo chemistry. 3 lec.

Grade Mode: Normal Grading Mode**CHM 566 Adv Organic Chemistry II****3 Credit hours**

A continuation of Chemistry 565 with emphasis on synthetic methods. 3 lec.

Pre-req: CHM 565.**Grade Mode:** Normal Grading Mode**CHM 567 Intermediate Biochemistry****3 Credit hours**

A survey course including introduction to basic biochemical concepts, bioenergetics, and information transfer.

Pre-req: CHM 365 with a minimum grade of C or BSC 365 with a minimum grade of C.

Grade Mode: Normal Grading Mode**CHM 580 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CHM 581 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CHM 582 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CHM 583 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CHM 585 Independent Study****1-4 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**CHM 586 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CHM 587 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CHM 588 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CHM 604 Theories Analytical Chem****2 Credit hours**

Offered on demand.

Pre-req: CHM 556.**Grade Mode:** Normal Grading Mode**CHM 607 Theoretical Organic Chem****2 Credit hours**

The application of quantitative methods to problems in structure and dynamics. 2 lec.

Pre-req: CHM 565.**Grade Mode:** Normal Grading Mode

CHM 618 Kinetics**3 Credit hours**

An advanced study of reaction rates and mechanisms.

Grade Mode: Normal Grading Mode**CHM 628 Special Topics-Inorganic****1-3 Credit hours**

Offered on demand.

Grade Mode: Normal Grading Mode**CHM 629 Special Topics-Organic****1-3 Credit hours**

Offered on demand.

Grade Mode: Normal Grading Mode**CHM 630 Special Topics-Physical****1-3 Credit hours**

Offered on demand.

Grade Mode: Normal Grading Mode**CHM 631 Seminar****1 Credit hour****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**CHM 632 Seminar****1 Credit hour****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**CHM 678 Applied Micr in Research****4 Credit hours**

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).

Grade Mode: Normal Grading Mode**CHM 679 Problem Report****3 Credit hours**

Preparation of a comprehensive written report on a topic in Chemistry of current importance. Registration only by permission of Department.

Grade Mode: Normal Grading Mode**CHM 682 Research****1-12 Credit hours**

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.

Grade Mode: Normal Grading Mode**CHM 685 Independent Study****1-4 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**CHM 686 Independent Study****1-4 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**CHM 687 Independent Study****1-4 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**CHM 688 Independent Study****1-4 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**CHM 723 Chemistry and Physics****3 Credit hours**

Scientific principles and clinical 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. Analyze the molecular basis for molecular bonding, stereochemistry, protein confirmation, enzyme-substrate reactions.

Grade Mode: Normal Grading Mode**Criminal Justice****CJ 500 Applied Ethics in CJ****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CJ 503 Understanding Cybercrime****3 Credit hours**

Examination of hacking, piracy, cyber stalking, cyber bullying, identity theft, and other cybercrimes through the lens of various criminological theories with an emphasis on research methodology and criminal justice policy.

Grade Mode: Normal Grading Mode**CJ 504 Theoretical Criminology****3 Credit hours**

A critical analysis of the major criminological theories and their empirical foundations. Current theory and research receive greater emphasis than historical development.

Grade Mode: Normal Grading Mode**CJ 505 Women and the CJS****3 Credit hours**

Examines factors surrounding women and the criminal justice system from a theoretical and practical perspective. Explores feminist ideologies, plus women as victims, offenders, and professionals in the justice system.

Grade Mode: Normal Grading Mode**CJ 506 Race, Ethnicity, Class, & Crime****3 Credit hours**

Examines the impact and relationship of race, ethnicity, and social class within the criminal justice system.

Grade Mode: Normal Grading Mode**CJ 510 Police Administration****3 Credit hours**

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. Police department organizations. Development of personal and employment practices in law enforcement. Issues concerning unions and unionization. Problems and techniques of management.

Grade Mode: Normal Grading Mode**CJ 515 Rural Criminology****3 Credit hours**

Critical analysis of rural crime and the criminological sub-field of rural criminology. Examines the economic, racial, and cultural conditions in rural America which reproduce exploitive economies and overall destructive behaviors.

Grade Mode: Normal Grading Mode**CJ 516 Terrorism****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CJ 517 CJ Decision Making****3 Credit hours**

Focuses on theories of criminal justice decision-making and decision points across the criminal justice system. Topics include the decision to report crime, police decisions, jury decisions, and sentencing decisions.

Grade Mode: Normal Grading Mode**CJ 518 Crime and Pop Culture****3 Credit hours**

A critical examination of the popular culture presentations of crime, offenders, victims, and the criminal justice processes.

Grade Mode: Normal Grading Mode

- CJ 522 Law of Evidence** **3 Credit hours**
 Leading rules and principles of exclusion and selection; burden of proof, nature and effect of presumptions; proof of authenticity and contents of writing; examinations competency and privilege of witnesses.
Grade Mode: Normal Grading Mode
- CJ 524 Computer Crime** **3 Credit hours**
 Students will identify and define criminal acts committed with computers or directed toward computer systems, electronic search and seizure and electronic evidence.
Grade Mode: Normal Grading Mode
- CJ 526 Civil Liability Issues CJ** **3 Credit hours**
 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.
Grade Mode: Normal Grading Mode
- CJ 533 Correctional Administration** **3 Credit hours**
 Objectives of correctional institutions; records; personnel, program development, security; educational programs.
Grade Mode: Normal Grading Mode
- CJ 540 CJ Response to Dom Violence** **3 Credit hours**
 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.
Grade Mode: Normal Grading Mode
- CJ 550 Bus & Industry Security** **3 Credit hours**
 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.
Grade Mode: Normal Grading Mode
- CJ 553 Seminar Crime Prevention** **3 Credit hours**
 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.
Grade Mode: Normal Grading Mode
- CJ 560 Miscarriages of Justice** **3 Credit hours**
 This course provides a critical examination of the processes and procedures used by police, prosecutors, defense attorneys, judges, and corrections agents which may potentially produce errors or "miscarriages" of justice.
Grade Mode: Normal Grading Mode
- CJ 580 Special Topics** **1-4 Credit hours**
 A study of special interest criminal justice topics under the supervision of a qualified faculty member.
Grade Mode: Normal Grading Mode
- CJ 581 Special Topics** **1-4 Credit hours**
 A study of special interest criminal justice topics under the supervision of a qualified faculty member.
Grade Mode: Normal Grading Mode
- CJ 582 Special Topics** **1-4 Credit hours**
 A study of special interest criminal justice topics under the supervision of a qualified faculty member.
Grade Mode: Normal Grading Mode
- CJ 583 Special Topics** **1-4 Credit hours**
 A study of special interest criminal justice topics under the supervision of a qualified faculty member.
Grade Mode: Normal Grading Mode
- CJ 585 Independent Study** **1-4 Credit hours**
 This course permits the student to undertake supervised research (field or library) in any area where there is no appropriate course.
Grade Mode: Normal Grading Mode
- CJ 586 Independent Study** **1-4 Credit hours**
 This course permits the student to undertake supervised re- search (field or library) in any area where there is no appropriate course.
Grade Mode: Normal Grading Mode
- CJ 587 Independent Study** **1-4 Credit hours**
 This course permits the student to undertake supervised research (field or library) in any area where there is no appropriate course.
Grade Mode: Normal Grading Mode
- CJ 588 Independent Study** **1-4 Credit hours**
 This course permits the student to undertake supervised research (field or library) in any area where there is no appropriate course.
Grade Mode: Normal Grading Mode
- CJ 590 Internship** **1-6 Credit hours**
 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.
Grade Mode: Credit/No Credit Grade Only
- CJ 601 Seminar Criminal Justice** **3 Credit hours**
 A forum to acquaint students, faculty and guests with each others' research and experiences in dealing with criminal justice issues.
Grade Mode: Normal Grading Mode
- CJ 604 Adv Theory Criminal Just** **3 Credit hours**
 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.
Grade Mode: Normal Grading Mode
- CJ 621 Adv Crim Law & Procedure** **3 Credit hours**
 A review of contemporary legislation and court decisions relating to criminal law and procedure.
Attributes: No Textbook Required
Grade Mode: Normal Grading Mode
- CJ 655 Research Methods in CJ** **3 Credit hours**
 Elements of scientific research; interaction between research and theory; use of data processing resources.
Grade Mode: Normal Grading Mode
- CJ 656 Applied Statistics in CJ** **3 Credit hours**
 Principles of statistical techniques with emphasis upon their application in the Criminal Justice system. (PR: Undergraduate statistics course and permission)
Pre-req: CJ 655.
Grade Mode: Normal Grading Mode
- CJ 679 Problem Report** **3 Credit hours**
 The preparation of a written report on a research problem or field study in Criminal Justice. (PR: CJ 655 and Permission)
Pre-req: CJ 655.
Grade Mode: Normal Grading Mode
- CJ 681 Thesis** **1-6 Credit hours**
Grade Mode: Credit/No Credit Grade Only

CJ 699 Capstone Experience**3 Credit hours**

A culminating experience where students will apply knowledge and skills learned in their program of study to create, in collaboration with an agency or organization in the field, an original, scholarly work that addresses a current issue of concern.

Pre-req: CJ 601 and CJ 604 and CJ 655 and CJ 656.

Grade Mode: Normal Grading Mode

Forensic Science**FSC 600 Cell & Molecular Biology****3 Credit hours**

A study of the molecular biology of the cell and its organelles, cell interactions, and differentiation.

Grade Mode: Normal Grading Mode

FSC 603 Genetics-DNA Lab**1 Credit hour**

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. Laboratory to be offered in conjunction with genetics and DNA Technology (FSC 604) stressing techniques and methods required for DNA analysis and trace evidence investigation.

Grade Mode: Normal Grading Mode

FSC 604 Genetics & DNA Technology**3 Credit hours**

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. An introduction to crime scene investigations, physical evidence collection, inorganic and organic analysis, serology, fingerprints, arson, drugs, documents, firearms and DNA technologies.

Grade Mode: Normal Grading Mode

FSC 605 F S Digital Imaging**3 Credit hours**

Introductory course in digital image processing. Covers techniques used in forensic laboratory to enhance, analyze, and catalog digital images. Instruction in lab setting.

Grade Mode: Normal Grading Mode

FSC 606 Crime Scene/Death Investiga**2 Credit hours**

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.

Grade Mode: Normal Grading Mode

FSC 607 Blood Stain Pattern Analysis**3 Credit hours**

A comprehensive bloodstain pattern analysis course including bullet trajectory, courtroom testimony, and report writing. This course is taught as a combination of lectures, laboratories, and practical exercises.

Pre-req: FSC 606.

Grade Mode: Normal Grading Mode

FSC 608 Forensic Toxicology**3 Credit hours**

An in-depth analysis of both clinical and forensic aspects of toxicology from the viewpoint of the forensic and medical examiner's toxicology laboratories. In depth discussions dealing with current and future DNA technologies and toxicology, expert witnessing in mock trials, quality assurance/quality control issues, CODIS and DNA banking.

Grade Mode: Normal Grading Mode

FSC 609 Network Forensics**3 Credit hours**

Teaches the basics of how computers and networks function, how they can be involved in crimes as well as used as a source of evidence. Teaches the basics of how computers and networks function. How they can be involved in crimes and how they can be used as a source of evidence.

Grade Mode: Normal Grading Mode

FSC 610 Bioterrorism: Forensics**3 Credit hours**

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. Course traces the historical development, current status, and future threats of bioterrorism in US and on a global scale. It includes microbiological, as well as forensic science issues.

Grade Mode: Normal Grading Mode

FSC 612 Intro Foren Micro/Trace**2 Credit hours**

Introduction to various types of microscopy used in forensics, including scanning electron microscopy, light and fluorescence microscopy and polarizing microscopy. Photographic techniques used for documentation will also be discussed.

Grade Mode: Normal Grading Mode

FSC 615 Adv Crime Investigation**3 Credit hours**

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, wound analysis.

Pre-req: FSC 606.

Grade Mode: Normal Grading Mode

FSC 617 Adv Crime Photo & Document**3 Credit hours**

This series of lectures and practical exercises introduces the student to sophisticated crime scene documentation techniques including sketching, surveying, photography and crime scene management techniques.

Pre-req: FSC 606.

Grade Mode: Normal Grading Mode

FSC 618 Forensic Comparative Sciences**2 Credit hours**

"Introduction to comparative methods used by forensic scientists for analysis of fingerprints, questioned documents, and firearms". Introduction to comparative methods used by forensic scientists for analysis of fingerprints, questioned documents, and firearms.

Grade Mode: Normal Grading Mode

FSC 619 Forensic Statistics**3 Credit hours**

Basic theory of probability and statistics, odds from Bayes' theorem for transfer evidence, likelihood ratio, population and statistical genetics, statistical issues in paternity testing and mixtures, and presenting evidence.

Grade Mode: Normal Grading Mode

FSC 622 Forensic Analytical Chem**3 Credit hours**

Analytical chemistry instrumentation and methods used by forensic scientists for analysis of drugs, toxicology, arson, explosives, trace evidence and sample collection and processing.

Grade Mode: Normal Grading Mode

FSC 623 Forensic Chemistry Laboratory**1 Credit hour**

Laboratory practicum will develop skill set needed in the forensic analysis of physical evidence using standard methods and modern analytical instrumentation.

Grade Mode: Normal Grading Mode

FSC 624 Biochemistry: Forensic Science**4 Credit hours**

This comprehensive course in biochemistry focuses on concepts appropriate to forensic science and designed to meet forensic science educational standards at a national level. Comprehensive course in Biochemistry which focuses on concepts appropriate to Forensic Science.

Grade Mode: Normal Grading Mode**FSC 626 Advanced Drug Analysis****2 Credit hours**

Concentration on modern analytical methods used in the isolation and the identification of illicit drugs and their metabolites in biological samples and other forensic evidence. (PR: FSC 622 or permission of instructor)

Grade Mode: Normal Grading Mode**FSC 627 Human Genetics****2 Credit hours**

Human Genetics serves as an introduction to the study of heritable traits in humans and their molecular basis; basic genetic principles, statistics, and probability; population database analyses; principles of population genetics and laws of Mendelian genetics as they relate to human identification; application of paternity testing and identification of human remains; use of single nucleotide polymorphisms (SNPs) and mtDNA profiling in forensic applications.

Pre-req: FSC 624.**Grade Mode:** Normal Grading Mode**FSC 628 Chem Analysis Trace Evidence****2 Credit hours**

A continuation of FSC 622 emphasizing additional types of evidence including paint, inks, fibers, and plastics. Methods Include pyrolysis-GCMS, micro-FTIR, GPC and capillary electrophoresis. Required course for Forensic Chemistry emphasis.

Grade Mode: Normal Grading Mode**FSC 629 Advanced DNA Technologies****2 Credit hours**

This course will provide advanced instruction in DNA technologies to assist in the preparation for a career in a forensic DNA laboratory.

Pre-req: (FSC 603 or FSC 643) and FSC 604.**Grade Mode:** Normal Grading Mode**FSC 630 Internship****5 Credit hours**

A 10 week internship in a crime lab or other forensic science related research laboratory. Application of principles and techniques learned during first year of program.

Grade Mode: Normal Grading Mode**FSC 632 Found Fund Digital Forensics****3 Credit hours**

The 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 basics concepts of computer security. The course is taught primarily in a lecture format. Class discussions and participation in practical exercises supplement lectures.

Grade Mode: Normal Grading Mode**FSC 634 Comp Search & Seizure****3 Credit hours**

Topics covered in this course will expand upon material covered in FSC 632. Additional areas include affidavits and warrants, national information security concepts, evidence collection, transport and preservation, computer networks, e-mail traces, imaging of original evidence, introduction to forensic tools, Window registry, malware and spyware, virtualization and hand held devices. Classes are presented in a lecture format and culminates with a mock, digital crime scene exercise.

Grade Mode: Normal Grading Mode**FSC 636 Mobile Phone Forensics****2 Credit hours**

This course addresses the complexity and structure of modern smart phones and focuses on data evidence storage and extraction for criminal case investigations.

Grade Mode: Normal Grading Mode**FSC 640 Firearms Toolmarks I****1 Credit hour**

This course provides an enhanced learning experience designed to reduce the time to competency typical of the knowledge required component fo a firearms examiner training program. FSC 640 is the first of two firearms and toolmarks examiner training courses.

Grade Mode: Normal Grading Mode**FSC 641 Firearms Toolmarks II****1 Credit hour**

This course provides an enhanced learning experience designed to reduce the time to competency typical of the knowledge required component of a firearms examiner training program. FSC 641 is the second of two firearms and toolmarks examiner training courses.

Grade Mode: Normal Grading Mode**FSC 642 DNA Tech Assistance I****2 Credit hours**

The goal of the DNA Technical Assistance Program (DNA TAP) is to prepare select students for placement in host forensic laboratories for validation and evaluation research studies. The student undergoes accelerated lectures and intense hands-on laboratory exercises including analytical procedures, instrument training, and data analysis.

Grade Mode: Normal Grading Mode**FSC 643 DNA Tech Assistance II****2 Credit hours**

The goal of the DNA Technical Assistance Program (DNA TAP) is to prepare select students for placement in host forensic laboratories for validation and evaluation research studies. The student undergoes accelerated lectures and intense hands-on laboratory exercises including analytical procedures, instrument training, and data analysis.

Grade Mode: Normal Grading Mode**FSC 646 Lab Management****2 Credit hours**

This course provides a foundation in management theory, principles & application necessary for forensic scientists who aspire to assume future positions as crime lab supervisors, managers, technical leaders, quality managers, directors or other roles as leaders in their field. This course addresses management theory as well as its practical application to the crime laboratory setting from an ISO/IEC 17025 perspective.

Grade Mode: Normal Grading Mode**FSC 650 Special Topics****1-4 Credit hours**

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode**FSC 651 Special Topics****1-4 Credit hours**

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode**FSC 652 Special Topics****1-4 Credit hours**

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode**FSC 653 Special Topics****1-4 Credit hours**

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode**FSC 660 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode

FSC 665 Legal Court in Forensic**3 Credit hours**

Covers the American legal system with specific emphasis on expert witnessing by forensic scientists. Mock trials provide experience in the courtroom.

Grade Mode: Normal Grading Mode**FSC 676 Adv Dig Evid Detect Recovery****2 Credit hours**

This advanced Digital Evidence Detection and Recovery course will provide an overview of the advanced procedures and techniques used by investigators working with digital evidence. This course will be taught as a combination of lecture, lab and practical exercises.

Grade Mode: Normal Grading Mode**FSC 679 Special Problems****1-4 Credit hours**

Students will be assigned specific areas of study for independent investigation. (PR: Consent of advisor)

Grade Mode: Normal Grading Mode**FSC 680 Seminar****1 Credit hour**

Faculty, student and guest speaker presentations of topics pertinent to forensic science. Faculty, student and guest speaker presentations of topics pertinent to forensic science and molecular biology and toxicology.

Grade Mode: Normal Grading Mode**FSC 681 Thesis****1-6 Credit hours**

Research conducted in the laboratories at MU which is focused on a problem of forensic importance. The original research problem will be written up as a formal document and submitted as part of the requirements to fulfill a MS degree in the research track.

Grade Mode: Normal Grading Mode**FSC 685 Intro Research****1-6 Credit hours**

Directed research which can be used to satisfy requirements for a Master's Degree in Forensic Science.

Grade Mode: Normal Grading Mode**Geology****GLY 510 Big Bend Field Excursion****2 Credit hours**

Field trip to Big Bend National Park, Texas to study the structure, stratigraphy, igneous geology, metamorphic geology, paleontology and natural history of this national park.

Grade Mode: Normal Grading Mode**GLY 518 Invertebrate Paleontology****4 Credit hours**

Taxonomy, morphology, and paleoecology of body and trace fossils representing the major invertebrate phyla; analysis and interpretation of faunal assemblages; evolution and extinction of species. (PR: GLY 201)

Grade Mode: Normal Grading Mode**GLY 521 Petrology****4 Credit hours**

Identification and classification of igneous, sedimentary and metamorphic rocks, their origin and occurrence; their geologic and economic. 2 lec-4 lab.

Grade Mode: Normal Grading Mode**GLY 523 Sedimentary Petrography****4 Credit hours**

Megascopic and microscopic identification and a depositional and post-depositional interpretation of the sedimentary rocks. 3 lec-2 lab.

Grade Mode: Normal Grading Mode**GLY 525 Geochemistry****4 Credit hours**

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.

Grade Mode: Normal Grading Mode**GLY 527 Fossil Fuels****4 Credit hours**

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.

Pre-req: GLY 200.**Grade Mode:** Normal Grading Mode**GLY 530 Computer Methods Geology****4 Credit hours**

The computer will be used for compilation, reduction, data analysis and modelling from a wide range of geological problems. Existing and student developed programs will be used.

Grade Mode: Normal Grading Mode**GLY 551 Principles Geomorphology****4 Credit hours**

Identification and analysis of the earth's surficial features in terms of stratigraphy, structure, processes, tectonics, and time. 3 lec - 2 lab.

Grade Mode: Normal Grading Mode**GLY 555 Hydrogeology****3 Credit hours**

The properties of water, the hydrologic cycle with emphasis on surface and groundwater processes. The uses, needs and problems associated with water resources.

Grade Mode: Normal Grading Mode**GLY 555L Hydrogeology Laboratory****1 Credit hour**

Laboratory and field experiments studying principles and concepts of hydrology. 2 lab.

Grade Mode: Normal Grading Mode**GLY 556 Environmental Geology****4 Credit hours**

Consideration of risks posed by natural geo-hazards and from physical/chemical contamination of geological media.

Grade Mode: Normal Grading Mode**GLY 557 Engineering Geology****4 Credit hours**

Consideration of geotechnical problems faced by geologists and engineers. Major topics include mechanics and classification of soil and rock, and geotechnical aspects of groundwater.

Grade Mode: Normal Grading Mode**GLY 580 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GLY 581 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GLY 582 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GLY 583 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GLY 585 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GLY 586 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GLY 587 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GLY 588 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GLY 640 Physical Aspects Geology****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GLY 641 Biological Aspect Geology****1-4 Credit hours****Grade Mode:** Normal Grading Mode

GLY 642 Chemical Aspects Geology**Grade Mode:** Normal Grading Mode**1-4 Credit hours****GLY 681 Thesis****Grade Mode:** Normal Grading Mode**1-6 Credit hours****Mathematics****MTH 500 Structure of Algebra****3 Credit hours**

Emphasis on the language of Modern Elementary Algebra.

Recommended for preservice elementary teachers and for elementary and secondary in-service teachers. May not be used for a degree offered by the Department of Mathematics or in the twelve hour content block of the Secondary Education MA Degree program for students with mathematics certification in grades 7-12.

Grade Mode: Normal Grading Mode**MTH 501 Structure Modern Geometry****3 Credit hours**

Informal development of geometry. Recommended for pre-service elementary teachers and for elementary and secondary in-service teachers. May not be used for a degree offered by the Department of Mathematics or in the twelve hour content block of the Secondary Education MA Degree program for students with mathematics certification in grades 7-12.

Grade Mode: Normal Grading Mode**MTH 527 Advanced Calculus I****3 Credit hours**

The number system, limits, sequences, partial differentiation with applications, maxima and minima of functions of several variables. Theory of definite integrals, multiple integrals, line and surface integrals, improper integrals, infinite series.

Grade Mode: Normal Grading Mode**MTH 528 Advanced Calculus II****3 Credit hours**

The number system, limits, sequences, partial differentiation with applications, maxima and minima of functions of several variables. Theory of definite integrals, multiple integrals, line and surface integrals, infinite series.

Pre-req: MTH 527 with a minimum grade of C.**Grade Mode:** Normal Grading Mode**MTH 548 Modern Geometries****3 Credit hours**

Finite geometries, basic background material for the modern development of Euclidean Geometry, other geometries.

Grade Mode: Normal Grading Mode**MTH 549 Projective Geometry****3 Credit hours**

Projective geometry using both synthetic and algebraic methods.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**MTH 550 Modern Algebra I****3 Credit hours**

Structure of the abstract mathematical systems; groups, rings, fields, with illustrations and applications from Number Theory.

Grade Mode: Normal Grading Mode**MTH 552 Modern Algebra II****3 Credit hours**

Structure of the abstract mathematical systems; groups, rings, fields, with illustrations and application from Number Theory.

Pre-req: MTH 550 with a minimum grade of C.**Grade Mode:** Normal Grading Mode**MTH 580 Special Topics****1-4 Credit hours**

Courses on special topics not listed among the current course offerings.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**MTH 585 Independent Study****1-4 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MTH 589 Graduate Mathematics Seminar****1 Credit hour**

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.

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**MTH 615 Partial Differential Equations****3 Credit hours**

Elementary partial differential equations. Heat equation, Laplace's equation, separation of variables, Fourier series, vibrating strings, eigenvalue problems, finite differences, Bessel functions, Legendre polynomials.

Grade Mode: Normal Grading Mode**MTH 616 Advanced Differential Equations****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MTH 630 Topology I****3 Credit hours**

General topology including separation axioms, connectedness, compactness, convergence, continuity, metric spaces, product and quotient spaces.

Grade Mode: Normal Grading Mode**MTH 631 Topology II****3 Credit hours**

General topology including separation axioms, connectedness, compactness, convergence, continuity, metric spaces, product and quotient spaces.

Pre-req: MTH 630 with a minimum grade of C and MTH 550 with a minimum grade of C.**Grade Mode:** Normal Grading Mode**MTH 635 Graph Theory and Combinatorics****3 Credit hours**

The course is designed to introduce students in mathematical sciences to the theorems, techniques and applications of graph theory and combinatorics.

Grade Mode: Normal Grading Mode**MTH 640 Complex Variables I****3 Credit hours**

A study of algebra, topology, and geometry of the complex plane; holomorphic functions; conformal mapping; analytic functions and analytic continuation; complex integration; representation theorems; convergence theorems and related topics.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**MTH 642 Numerical Linear Algebra****3 Credit hours**

Direct and iterative methods for numerical solution of linear systems of equations. Eigenvalues and eigenvectors. Error analysis and norms. Related Topics.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**MTH 643 Numerical Analysis****3 Credit hours**

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.

Grade Mode: Normal Grading Mode

MTH 650 Real Variables I**3 Credit hours**

A study of measure and integration and related topics.

Pre-req: MTH 528 with a minimum grade of C.**Grade Mode:** Normal Grading Mode**MTH 655 Number Theory****3 Credit hours**

A survey of some basic properties of the integers: divisibility (prime numbers, factorization, perfect numbers), congruences (modular arithmetic, linear and quadratic congruences, the Chinese Remainder Theorem), and Diophantine equations.

Grade Mode: Normal Grading Mode**MTH 667 Num Partial Diff Equations****3 Credit hours**

Finite difference methods for elliptic, parabolic, and hyperbolic PDEs. Study of properties such as consistency, convergence, and stability. Computer implementation.

Pre-req: MTH 527 with a minimum grade of C.**Grade Mode:** Normal Grading Mode**MTH 670 Independent Study****1-4 Credit hours**

An independent program of study of advanced topics not normally covered in other courses. The topics are chosen upon mutual agreement between the student and the instructor

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**MTH 681 Thesis****1-6 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MTH 690 Special Topics****1-4 Credit hours**

Courses on special topics not listed among the current course offerings. (PR: Permission of Instructor)

Grade Mode: Normal Grading Mode**Nat Resources & Environment****NRE 531 Aqua Toxicology****4 Credit hours**

This course will introduce students to the principles of aquatic toxicology including regulations driving biological criteria, development of laboratory toxicity testing and test methodology.

Grade Mode: Normal Grading Mode**Physics****PHY 505 Optics Lab****2 Credit hours**

A course in optical experiments encompassing geometrical and physical optics. This course is to be taken with Physics 304.

Pre-req: PHY 304 (may be taken concurrently).**Concurrent PR:** PHY 304**Grade Mode:** Normal Grading Mode**PHY 515 Electronics Lab****2 Credit hours**

A course in laboratory measurements encompassing transistors, integrated circuits, and their associated circuits. This course is to be taken with Physics 314.

Grade Mode: Normal Grading Mode**PHY 520 Astrophysics****3 Credit hours**

A detailed study of core problems in Astrophysics such as orbital dynamics, radiation processes, stellar structure and evolution, galactic dynamics, and cosmology.

Grade Mode: Normal Grading Mode**PHY 521 Modern Physics Lab****2 Credit hours**

Laboratory exercises on modern physics topics encompassing both experiments of historic significance and current applications. To be taken with Physics 320, or equivalent.

Grade Mode: Normal Grading Mode**PHY 525 Solid State Physics****3 Credit hours**

The purpose of this course is to provide a broad introduction to the structures and physical properties of solids, which are of extraordinary importance in the modern world.

Grade Mode: Normal Grading Mode**PHY 535 Computational Physics****3 Credit hours**

A course in using numerical methods and computer programming languages for solving complex physics problems and for the simulation of various physical processes. 2 lec-2 lab.

Grade Mode: Normal Grading Mode**PHY 542 Quantum Mechanics****3 Credit hours**

Mathematical formalism of quantum mechanics, particles in potential fields, perturbation theory and other approximation methods, scattering, applications to simple systems. 3 lec.

Grade Mode: Normal Grading Mode**PHY 543 Quantum Mechanics II****3 Credit hours**

This is the second part of a two-semester introduction to quantum mechanics. Emphasis is on applications of quantum theory including approximation techniques and the study of more realistic quantum systems.

Grade Mode: Normal Grading Mode**PHY 544 Advanced Lab****2 Credit hours**

Developments in producing and detecting correlated photon pairs has enabled implementation of undergraduate laboratories demonstrating fundamental quantum mechanical principles. This laboratory also incorporates fundamental solid state and materials science experiments.

Pre-req: PHY 525 (may be taken concurrently) with a minimum grade of D and PHY 542 (may be taken concurrently) with a minimum grade of D.**Concurrent PR:** PHY 525 and PHY 542**Grade Mode:** Normal Grading Mode**PHY 545 Math Methods of Physics****3 Credit hours**

An introduction to the theory of orthogonal functions, curvilinear coordinate systems, vector and tensor fields and their applications in Physics. Problems are drawn from different areas of physics. 3 lec.

Grade Mode: Normal Grading Mode**PHY 546 MTH Methods of Physics II****3 Credit hours**

A second semester of a full year course on methods of solving problems in physics: calculus of variations, ordinary partial differential equations and special functions with real physics problems.

Pre-req: PHY 545.**Grade Mode:** Normal Grading Mode**PHY 547 Mechanics for Teachers****4 Credit hours**

An indepth study of mechanics for education majors specializing in Physics with emphasis on problem solving techniques, demonstrations, experiments and computer applications. (PR: PHY 203, MTH 122 and MTH 140)

Grade Mode: Normal Grading Mode**PHY 580 Special Topics****2-4 Credit hours****Grade Mode:** Normal Grading Mode**PHY 581 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode

PHY 582 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours	PHY 640 Fundamentals of Physics A course in fundamental concepts of physics. Subject content varies. Designed primarily to strengthen conceptual understanding of teachers. Grade Mode: Normal Grading Mode	4 Credit hours
PHY 583 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours	PHY 642 Adv Quantum Mechanics This course covers advanced topics of quantum mechanics at the graduate level. Topics include fundamental issues, approximation methods and applications. Pre-req: PHY 630 (may be taken concurrently) with a minimum grade of D. Concurrent PR: PHY 630 Grade Mode: Normal Grading Mode	4 Credit hours
PHY 585 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours	PHY 645 Methods of Math. Physics This course will review and develop theories of real and complex analysis, group theory, tensors, special functions, differential and integral transforms, emphasizing their application to electrodynamics, quantum statistical mechanics, etc. Grade Mode: Normal Grading Mode	4 Credit hours
PHY 586 Independent Study Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1-4 Credit hours	PHY 661 Special Topics Grade Mode: Normal Grading Mode	1-3 Credit hours
PHY 587 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours	PHY 662 Special Topics Grade Mode: Normal Grading Mode	1-3 Credit hours
PHY 588 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours	PHY 682 Thesis Research Grade Mode: Normal Grading Mode	1-6 Credit hours
PHY 600 Electricity and Magnetism I A study of electrostatics and associated boundary-value problems, electric multipoles and macroscopic media, dielectrics, magnetostatics, time-varying fields, Maxwell equations and conservation laws, plane electromagnetic waves and wave propagation. Grade Mode: Normal Grading Mode	4 Credit hours	PHY 685 Independent Study Advanced Independent Study in Physics. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1-4 Credit hours
PHY 608 Statistical Mechanics The course introduces thermodynamics and statistical mechanics to graduate students of physics and other science and engineering disciplines as two complimentary approaches to study physical properties of systems in equilibrium. Grade Mode: Normal Grading Mode	4 Credit hours	PHY 686 Independent Study Advanced Independent Study in Physics. Grade Mode: Normal Grading Mode	1-4 Credit hours
PHY 610 Special and Gen Relativity General relativity, the classical theory of one of the four fundamental forces, is not a standard course offer. 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. Grade Mode: Normal Grading Mode	3 Credit hours	Statistics	
PHY 620 Modern Astrophysics I Modern Astrophysics is firmly grounded in the fundamental principles of physics, and will offer students the opportunity to use the physics they have learned in understanding the nature of the universe. This course provides a graduate-level introduction to astrophysics, focusing on stellar structure and evolution. Grade Mode: Normal Grading Mode	3 Credit hours	STA 512 Regression Analysis 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. Pre-req: STA 545 with a minimum grade of C. Grade Mode: Normal Grading Mode	3 Credit hours
PHY 625 Condensed Matter Physics 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. Grade Mode: Normal Grading Mode	3 Credit hours	STA 513 Experimental Designs Principles of experimentation; Analysis of variance; Latin square and related designs; Factorial designs, Response Surface; Robustness; Nested and Split-Plot designs. Pre-req: STA 545 with a minimum grade of C. Grade Mode: Normal Grading Mode	3 Credit hours
PHY 630 Classical Mechanics Study of variational principles and Lagrange's equations, the two-body central force problem, the kinematics and dynamics of rigid-body motion, Hamilton equations of motion, canonical transformations, Hamilton-Jacobi theory, and small oscillations. Grade Mode: Normal Grading Mode	4 Credit hours	STA 518 Biostatistics 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. Grade Mode: Normal Grading Mode	3 Credit hours
PHY 631 Seminar Grade Mode: Normal Grading Mode	1 Credit hour		
PHY 632 Seminar Grade Mode: Normal Grading Mode	1 Credit hour		

STA 520 Nonparametric Statistics**3 Credit hours**

Coverage of a variety of nonparametric or distribution-free markets for practical statistical inference problems in hypothesis testing and estimation, including rank procedures and randomization procedures.

Pre-req: STA 545 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 525 Sampling Design & Estimation**3 Credit hours**

Coverage of the theory and applications of a variety of sampling designs; sample size determination; ratio and regression estimates; comparisons among the designs.

Grade Mode: Normal Grading Mode

STA 535 Statistical Data Mining**3 Credit hours**

Introduction to statistical learning techniques for analyzing high dimensional data. Topics include data mining strategy, explanatory analysis, predictive modeling techniques and model assessment.

Grade Mode: Normal Grading Mode

STA 545 Probability and Statistics I**3 Credit hours**

Probability spaces, conditional probability, and applications. Random variables, distributions, expectations, and moments.

Grade Mode: Normal Grading Mode

STA 546 Probability and Statistics II**3 Credit hours**

Probability spaces, conditional probability, and applications. Random variables, distributions, expectations, and moments.

Pre-req: STA 545 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 564 Statistical Computing**3 Credit hours**

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: STA 545 or STA 546)

Pre-req: STA 545 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 570 Applied Survival Analysis**3 Credit hours**

Survival and hazard functions, parametric and non-parametric methods, models and inferences for survival data, proportional hazard, and regression diagnosis.

Pre-req: STA 545 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 580 Special Topics**1-4 Credit hours**

Courses on special topics in statistics not listed among current course offerings.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

STA 585 Independent Study**1-4 Credit hours**

A faculty supervised, individualized course of study of a topic in statistics.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

STA 634 Stat Mtds for Researchers**3 Credit hours**

Aspects of statistical modeling including model building, adequacy assessment, inference, and prediction. Applications to social biological, and medical sciences; engineering; and industry.

Grade Mode: Normal Grading Mode

STA 660 Stochastic Processes**3 Credit hours**

Theory and applications of Markov chains. (PR: MTH 545)

Pre-req: STA 545 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 661 Adv Math Statistics**3 Credit hours**

Topics in mathematical statistics including distribution theory for functions of random variables, convergence concepts, sufficient statistics, finding optimal estimates for parameters, optimal test of hypotheses. (PR: MTH 546)

Pre-req: STA 546 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 662 Appl Multivariate Stat Methods**3 Credit hours**

Introduction to multivariate statistical analyses and methodologies of various types of datasets that are commonly encountered in medical, business, engineering, science, and any other data intensive disciplines.

Pre-req: STA 546 with a minimum grade of C.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

STA 663 Time Series Forecasting**3 Credit hours**

Finding statistical models to represent various time-dependent phenomena and processes; coverage of a variety of forecasting techniques, with an emphasis on adaptive, regression, and Box-Jenkins procedures.

Pre-req: STA 545 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 664 Bayesian Statistics**3 Credit hours**

An introduction to Bayesian Statistics with focus on Bayesian Modeling, inference and Data Analysis. Applications will be studies with appropriate statistical software.

Pre-req: STA 545 with a minimum grade of D.

Grade Mode: Normal Grading Mode

STA 665 Advanced Stat Learning**3 Credit hours**

An overview of concepts and techniques in advanced statistical learning. Topics include supervised/unsupervised learning, kernel smoothing methods, trees, random forests, association rules, neural networks and support vector machines.

Pre-req: STA 535 with a minimum grade of D.

Grade Mode: Normal Grading Mode

STA 670 Independent Study**1-4 Credit hours**

A faculty supervised, individualized course of study of a topic in statistics.

Grade Mode: Normal Grading Mode

STA 681 Thesis**1-6 Credit hours**

Investigate a theoretical or applied statistics problem under faculty mentorship.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

STA 690 Special Topics**1-4 Credit hours**

Courses on special topics in statistics not listed among the current course offerings.

Grade Mode: Normal Grading Mode

Biological Sciences, M.A.

Program Description

The Department of Biological Sciences offers Master of Science (M.S.) and Master of Arts (M.A.) degrees with a major in Biological Sciences. Students in the School of Biological and Environmental Sciences, composed of the Department of Biological Sciences (BSC) and the Department of Natural Resources and the Environment (NRE), may complete the requirements for an M.S. under a faculty mentor in a

range of areas such as aquatic biology, aquatic toxicology, biological anthropology, cellular and molecular biology, ecology, environmental sciences, evolution, genetics, microbiology, plant biology, neurobiology, and wildlife biology.

The Master of Science (M.S.) degree in Biological Sciences is preparation for further study or employment requiring 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 at the websites for Biological Sciences (www.marshall.edu/biology) and Natural Resources and the Environment (www.marshall.edu/nre).

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.

Graduate Assistantships

Once application has been made to the Graduate College for admission to the Biological Sciences graduate program, students who are interested may also apply to become a teaching or research assistant. To do so, visit the Human Resources website's Employment section, select "Graduate Assistant Employment," and search for listings under Biological Sciences or Natural Resources and the Environment. Open positions are generally posted in late spring and late fall; offers are made on a rolling basis.

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/.

Applications for admission to the program are accepted throughout the year. However, graduate teaching assistantship (GTA) positions are open until filled beginning April 1 for GTA positions for the fall semester and October 15 for GTA positions for the spring semester. Later applicants may not be awarded a GTA if all the positions for the upcoming semester are filled.

In addition, 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 that identifies a member of the graduate faculty from either the Department of Biological Sciences or Department of Natural Resources and the Environment willing to serve as the student's advisor (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:

- An overall undergraduate GPA of 2.75 on a 4.0 scale and a GPA of 3.0 on a 4.0 scale for all biological sciences courses are required for full admission. GRE scores are required. A composite GRE score (combined verbal and quantitative test scores) of 295 or

greater is preferred for full admission. Students may be admitted provisionally for their first semester with a GRE score below 295 but must earn a 3.0 graduate GPA their first semester at Marshall University to be fully admitted..

Program Requirements

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.A. Degree Requirements

Students who select the M.A. option must complete a minimum of 36 hours of graduate coursework. At least 18 credits must be at the 600 level.

M.A. candidates do not conduct thesis research. The graduate seminars, BSC electives, Independent Study/Special Problems, GPA, "C" grades, and comprehensive oral exam requirements are as stated for the M.S. degree.

Biological Sciences, M.S.

Program Description

The Department of Biological Sciences offers Master of Science (M.S.) and Master of Arts (M.A.) degrees with a major in Biological Sciences. Students in the School of Biological and Environmental Sciences, composed of the Department of Biological Sciences (BSC) and the Department of Natural Resources and the Environment (NRE), may complete the requirements for an M.S. under a faculty mentor in a range of areas such as aquatic biology, aquatic toxicology, biological anthropology, cellular and molecular biology, ecology, environmental sciences, evolution, genetics, microbiology, plant biology, neurobiology, and wildlife biology.

The Master of Science (M.S.) degree in Biological Sciences is preparation for further study or employment requiring 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 at the websites for Biological Sciences (www.marshall.edu/biology) and Natural Resources and the Environment (www.marshall.edu/nre).

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.

Graduate Assistantships

Once application has been made to the Graduate College for admission to the Biological Sciences graduate program, students who are interested may also apply to become a teaching or research

assistant. To do so, visit the Human Resources website's Employment section, select "Graduate Assistant Employment," and search for listings under Biological Sciences or Natural Resources and the Environment. Open positions are generally posted in late spring and late fall; offers are made on a rolling basis.

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/>).

Applications for admission to the program are accepted throughout the year. However, graduate teaching assistantship (GTA) positions are open until filled beginning April 1 for GTA positions for the fall semester and October 15 for GTA positions for the spring semester. Later applicants may not be awarded a GTA if all the positions for the upcoming semester are filled.

In addition, 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 that identifies a member of the graduate faculty from either the Department of Biological Sciences or Department of Natural Resources and the Environment willing to serve as the student's advisor (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:

- An overall undergraduate GPA of 2.75 on a 4.0 scale and a GPA of 3.0 on a 4.0 scale for all biological sciences courses are required for full admission. GRE scores are required. A composite GRE score (combined verbal and quantitative test scores) of 295 or greater is preferred for full admission. Students may be admitted provisionally for their first semester with a GRE score below 295 but must earn a 3.0 graduate GPA their first semester at Marshall University to be fully admitted..

Program Requirements 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 Thesis) is 12 hours.
- Candidates for the M.S. degree must register for and participate in three hours of graduate seminars (BSC 660 Seminar I) during their

first semester and BSC 662 Seminar II in what is expected to be their final semester and complete at least 18 hours in graded BSC electives at the graduate level (which may include BSC 660 Seminar I, BSC 662 Seminar II, and BSC 681 Thesis).

- Not more than 4 hours of seminar (BSC 660 Seminar I, BSC 662 Seminar II) may be used to complete the 32-hour requirement.
- Not more than 4 semester hours credit in Independent Study (BSC 585 Independent Study-BSC 588 Independent Study) or Special Problems (BSC 650 Special Problems-BSC 652 Special Problems) 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.

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 (<http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>).

In addition, applicants must:

- hold an undergraduate degree in Chemistry, or an equivalent degree approved by the Chemistry department;
- 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 CHM 682 Research and one hour each for CHM 631 Seminar and CHM 632 Seminar. 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, Accelerated Master's Degree

An Accelerated Master's Degree is available for qualified undergraduate criminal justice majors. Please note that AGD applicants must have a 3.30 overall undergraduate GPA as well as a 3.50 GPA in the major for admission into the AGD program in Criminal Justice. AGD 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. Also, it is important to note that during the last semester of senior year, students in the AGD program must apply for formal admission to the Graduate College for the master's program in Criminal Justice. See the Accelerated Graduate Degree section in this catalog for details.

Criminal Justice, M.S. 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.

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.)

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 as documented on an official, final degree transcript from the applicant's baccalaureate degree-awarding institution;
- GRE scores (will be evaluated in combination with the undergraduate GPA);
- for international students, a score on the TOEFL (Test of English as a Foreign Language) of 80;
- 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).

Waivers: Applicants may qualify for a waiver of the GRE requirement if the student

1. possesses an overall GPA of 3.30 or higher as evidenced by his/her official, final degree transcript from the applicant's baccalaureate degree-awarding institution, or
2. by completion of a master's degree in a related field.

Applicants who have completed a previous master's degree must submit an official, final transcript from the applicant's master's degree-awarding institution as evidence of qualifying for the waiver.

Students may be considered for provisional admission or conditional enrollment. Please see www.marshall.edu/graduate/admissions/types-of-admission (<http://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 department 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 (<http://www.marshall.edu/graduate/graduate-assistantships-2/graduate-assistantship-overview/>). For complete information on other financial support opportunities, please see www.marshall.edu/graduate (<http://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.

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 (even if the course is repeated and a higher grade is earned).

Plan of Study

Core Requirements

All students are required to complete 15 credits of core courses:

Code	Title	Credit Hours
CJ 601	Seminar Criminal Justice	3
CJ 604	Adv Theory Criminal Just	3
CJ 621	Adv Crim Law & Procedure	3
CJ 655	Research Methods in CJ	3
CJ 656	Applied Statistics in CJ	3
Total Credit Hours		15

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).
- Demonstrate written, research, and statistical abilities, which are part of the student's comprehensive assessment.
- Pass the capstone assessment 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.
- Enroll in CJ 681 Thesis for a minimum of 3 credits.
- Pass an oral defense of the thesis.

Criminal Justice, Minor

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:

Code	Title	Credit Hours
Select six hours from the following:		6
CJ 504	Theoretical Criminology	
CJ 506	Race, Ethnicity, Class, & Crime	
CJ 510	Police Administration	
CJ 526	Civil Liability Issues CJ	
CJ 533	Correctional Administration	
CJ 601	Seminar Criminal Justice	
Total Credit Hours		6

Special topics courses appropriate for the minor are also frequently offered.

Digital Forensics, Graduate Certificate

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.

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: NJ Report NCJ 203099 - "Qualifications for a Career in Forensic Science." pp. 7-10) in the field of Digital Forensics.

Fees

The Forensic Science Fee is a special fee designed to support the Forensic Science Program, which cannot be waived.

Admission Requirements

- 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, students will be admitted on a space-available basis.
- 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 **and** 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 (<http://www.marshall.edu/graduate/secondary-program-request-form/>).

- 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.
- 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.
- 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.
- 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.

Program Requirements

Successful completion of this Graduate Certificate requires that the student maintain a cumulative Grade Point Average (GPA) of 3.0 or better in 5 required courses with no grade of C or less.

Code	Title	Credit Hours
Required Courses		
FSC 632	Found Fund Digital Forensics	3
FSC 634	Comp Search & Seizure	3
FSC 605	F S Digital Imaging	3
FSC 609	Network Forensics	3
FSC 676	Adv Dig Evid Detect Recovery	2
Total Credit Hours		14

Plan of Study Curriculum

Course	Title	Credit Hours
First Year		
First Semester		
FSC 632	Found Fund Digital Forensics	3
FSC 609	Network Forensics	3
Credit Hours		6
Second Semester		
FSC 634	Comp Search & Seizure	3
FSC 605	F S Digital Imaging	3
FSC 676	Adv Dig Evid Detect Recovery	2
Credit Hours		8
Total Credit Hours		14

Forensic Science, M.S.

Admission Requirements

Admission Policy

Applicants are reviewed on a rolling basis with earlier applications receiving greater consideration. The program recommends submitted completed applications and all required credentials prior to March 1.

The complete application process includes:

1. Submission of the Marshall University Graduate College Application available online at www.marshall.edu/graduate (<http://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 (<http://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. 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.

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.

Program Requirements

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 Intro Research (3 credit hours) and FSC 681 Thesis (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.

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. 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.

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.

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 the Combined DNA Index System (CODIS) for West Virginia. The DNA emphasis exceeds the DNA Advisory Board standards by requiring a total of 8 graduate-level credit hours addressing the DNA guidelines.

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.

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.

Plan of Study

Core Curriculum

The core curriculum is required of all forensic science students to provide broad-based education and experience. The core curriculum includes:

Code	Title	Credit Hours
Core Curriculum		
FSC 604	Genetics & DNA Technology	3
FSC 606	Crime Scene/Death Investiga	2
FSC 612	Intro Foren Micro/Trace	2
FSC 618	Forensic Comparative Sciences	2
FSC 622	Forensic Analytical Chem	3
FSC 623	Forensic Chemistry Laboratory	1
FSC 624	Biochemistry: Forensic Science	4
FSC 630	Internship	5
FSC 632	Found Fund Digital Forensics	3
FSC 665	Legal Court in Forensic	3
FSC 680	Seminar (semesters 1, 2, 4, 5)	1
FSC 619	Forensic Statistics	3
Approved Elective		3
Areas of Emphasis		
Select one of the following:		7-11
Crime Scene Investigation (p. 282)		
Digital Forensics (p. 282)		
DNA Analysis (p. 282)		
Forensic Chemistry (p. 282)		
Total Credit Hours		42-46

Areas of Emphasis

Crime Scene Investigation

In addition to the core curriculum, this area of emphasis includes:

Code	Title	Credit Hours
FSC 607	Blood Stain Pattern Analysis	3
FSC 615	Adv Crime Investigation	3
FSC 617	Adv Crime Photo & Document	3
Total Credit Hours		9

Total including Core requirements 47 hrs.

Digital Forensics

For the Digital Forensics area of emphasis, the student must complete the following courses in addition to the core curriculum:

Code	Title	Credit Hours
FSC 605	F S Digital Imaging	3
FSC 609	Network Forensics	3
FSC 634	Comp Search & Seizure	3
FSC 676	Adv Dig Evid Detect Recovery	2
Total Credit Hours		11

Total including core requirements 49

DNA Analysis

For the Forensic DNA Analysis area of emphasis, the student must complete the following courses in addition to the core curriculum:

Students considering a career in Forensic DNA Analysis are encouraged to enroll in FSC 650 Special Topics, Crime Laboratory Technical Assistance (Fall, 2 credits; and Spring, 2 credits).

Code	Title	Credit Hours
FSC 600	Cell & Molecular Biology	3
FSC 603	Genetics-DNA Lab	1
FSC 627	Human Genetics	2
FSC 629	Advanced DNA Technologies	2
Total Credit Hours		8

Total including core requirements 46 hrs.

Forensic Chemistry

This emphasis requires the completion of the following chemistry related courses in addition to the core curriculum:

Code	Title	Credit Hours
FSC 608	Forensic Toxicology	3
FSC 626	Advanced Drug Analysis	2
FSC 628	Chem Analysis Trace Evidence	2
Total Credit Hours		7

Total including core requirements 45 hrs.

Geobiophysical Science, Minor

The Department of Physics also offers a minor field in Geobiophysical Science. Please contact the department chair for information about this minor.

Mathematics, M.A.

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 (<http://www.marshall.edu/graduate/>). International applicants should also consult the Office of International Student Services and review the website www.marshall.edu/admissions/international (<http://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 Student Services 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 (<http://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 (<http://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 (<http://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.

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. 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, STA 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 Advanced Calculus II, STA 546 Probability and Statistics II, and MTH 552 Modern Algebra II 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 being exempted from MTH 528 Advanced Calculus II, STA 546 Probability and Statistics II, and MTH 552 Modern Algebra II, students must take and pass STA 661 Adv Math Statistics and STA 662 Appl Multivariate Stat Methods, 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.

Mathematics, Minor

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 Applied Sciences, M.S.

The Master of Science in Physics and Applied Sciences, offered in cooperation with the Departments of Chemistry, Geology, Computer and Information 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 Physics and Applied Sciences, with an Area of Emphasis in one of the following: Chemistry, Geobiophysical Modeling, Geology, Mathematics, Physics and Physical Science.

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 (<http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>).

In addition:

- The applicant must have an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale in their major;
- Applicants external to the Marshall University geology department must arrange for **three** recommendation letters mailed (or e-mailed) to the department chair.
- 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;
- 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.

Program 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.

Code	Title	Credit 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. Students must pass a qualifying examination during the first eight weeks of their 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. Students will be allowed two attempts to pass the qualifying exam. If a student fails to pass the qualifying exam on the first or second attempt, the student must withdraw from the program at the end of their first semester and may not reapply 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, students 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 student forms 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.
4. Following successful passing of the qualifying exam, the student must submit a thesis proposal to his/her committee. The proposal must be approved by the committee no later than the end of the student's second semester of enrollment in the plan. Guidelines for writing the research proposal can be found on the departmental website.
5. Students 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. Students should submit an application for graduation to the Graduate College at the beginning of the semester in which they plan to graduate.
7. Upon completion of his/her thesis work, the student will submit a draft of his/her thesis approved by his/her advisor to the thesis committee. Guidelines for scientific writing can be found on the departmental website.
8. The candidate must orally present and successfully defend his/ her thesis before his/her thesis committee. The oral presentation will be open to the public. The subsequent question-and-answer session by the committee will focus solely on the student's research, and will be closed to the public. Upon completion of the Q & A session, the student 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 student. Should the candidate not pass his/ her thesis defense, he/she will be allowed two more attempts at defending the thesis. Conference or meeting presentations will not substitute for the oral defense.
9. The student 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 student's thesis, the student 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.
10. Normal time for completion of the M.S. degree is 2.5 years. A student must complete all requirements for graduation within five calendar years from the date of successful completion of his/her qualifying exam. Otherwise, his/her thesis hours will no longer count toward graduation.

11. A student who fails to satisfy criterion 10 above may petition his/ her thesis committee explaining the circumstances behind this delay.

Physics, M.S.

The Department of Physics at Marshall offers a Master of Science with major in physics, within the Physics and Applied Sciences master's degree program. Students with an undergraduate degree in physics or related fields are encouraged to apply to this major to advance in their knowledge of physics, and to pursue their career goals in industry, government or teaching. The Marshall physics master's major has been designed to meet the needs of students who are either interested in obtaining an M.S. in Physics as their terminal degree, or want to have further graduate study in physics, astronomy or other fields. A master's serves as a bridge to a Ph.D. program. Moreover, graduates with an M.S. in Physics usually are hired into positions which require a high level of problem-solving or technical skills, in the federal or private sector.

Program Requirements

General Requirement: Students need to complete a minimum of 32 credits with thesis (36 without thesis) with a GPA of 3.0 or better.

Plan of Study

Code	Title	Credit Hours
Required Courses		
PHY 600	Electricity and Magnetism I	4
PHY 608	Statistical Mechanics	4
PHY 630	Classical Mechanics	4
PHY 642	Adv Quantum Mechanics	4
PHY 645	Methods of Math. Physics	4
Elective Courses		
Select 6 credit hours of elective courses, among which one Advanced Lab is required		6
Thesis/Non-Thesis Options		
Select one of the following:		6-10
Thesis (6 CH)		
Elective Courses (10 CH)		
Total Credit Hours		32-36

Students can choose between the thesis option and non-thesis option to complete the requirements for the M.S. program.

Thesis Option: Research opportunities in the Physics Department are broad. Faculty members in the Physics Department are doing their research in theoretical and experimental condensed matter physics, nanoscience, solar cells, laser physics, optics, gravitational physics and astrophysics. Students can choose to work with one of the faculty members on a research direction the faculty and the students choose. A thesis must be submitted to a committee of 3 faculty members and presented after that in an oral exam.

Non-thesis Option: Students who already complete all required courses and labs and do not want to do a thesis can fulfill the requirement by taking elective courses from the graduate level courses offered by the Physics Department.

School of Medicine

Contacts: Dr. Joseph Shapiro, Dean

Website: <http://musom.marshall.edu>

musom@marshall.edu

Programs

- Biomedical Research, M.D./Ph.D. (p. 293)
- Biomedical Research, M.S. (Non-Thesis) (p. 296)
- Biomedical Research, M.S. (Thesis) (p. 298)
- Biomedical Research, M.S. and Pharm.D. (p. 299)
- Biomedical Research, Ph.D. (p. 301)
- Clinical and Translational Science M.S. (p. 302)
- Physician Assistant, M.S. (p. 304)

Courses

Biomedical Research

BMR 601 Intro DNA, RNA & Proteins 3 Credit hours

A molecular and cell biological study of the structure and function of nucleic acids and proteins.

Grade Mode: Normal Grading Mode

BMR 602 Intro Cells and Metabolism 3 Credit hours

A molecular and cell biological study of the structure of cells and of cellular metabolism.

Grade Mode: Normal Grading Mode

BMR 603 Regulation Cell Function 2 Credit hours

An advanced molecular and cell biological study of cell metabolism and the regulation of cell function.

Grade Mode: Normal Grading Mode

BMR 604 Cell Basis of Disease 1 Credit hour

A molecular and cell biological study of the basis of diseases prevalent in Appalachia

Grade Mode: Normal Grading Mode

BMR 617 BMR Statistics Technique 3 Credit hours

An application-oriented course in statistical concepts and techniques aimed at prospective researchers in the biomedical sciences.

Grade Mode: Normal Grading Mode

BMR 628 Neuroscience I 3 Credit hours

To study and understand the structure and function of the nervous system and disorders of neuronal function.

Pre-req: BMR 600.

Grade Mode: Normal Grading Mode

BMR 629 Neuroscience II 3 Credit hours

To study and understand the structure and function of the nervous system and disorders of neuronal function.

Pre-req: BMR 628.

Grade Mode: Normal Grading Mode

BMR 631 Neurosci/DevBio Lit Review 1 Credit hour

Published articles in the neuroscience literature will be presented by all class members. Each presentation will include background introduction methods, results, and discussion of the neuroscience research.

Grade Mode: Credit/No Credit Grade Only

BMR 641 Molecular Development 3 Credit hours

An in-depth discussion of current literature in developmental biology with emphasis on early embryo development, morphogenesis, lineage determination and regulation of of developmental process.

Pre-req: BIC 628.

Grade Mode: Normal Grading Mode

BMR 644 Research Conduct 1 Credit hour

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.

Grade Mode: Credit/No Credit Grade Only

BMR 651 Cancer Biology 4 Credit hours

An advanced graduate course on the core principles of initiation, progression, treatment and prevention of cancer, based on current literature. (PR: BMR 601, 602, 603, 604, and permission of instructor).

Pre-req: BMR 601 and BMR 602 and BMR 603 and BMR 604.

Grade Mode: Normal Grading Mode

BMR 652 Cancer Biol Colloquium 1 Credit hour

This is a mentored journal club for graduate students covering selected areas of current interest in cancer biology research.

Grade Mode: Credit/No Credit Grade Only

BMR 660 Communication Bio Sci I 1 Credit hour

Biomedical graduate students are trained to plan, prepare and deliver effective scientific presentations.

Grade Mode: Credit/No Credit Grade Only

BMR 661 Communication Bio Sci II 1 Credit hour

Biomedical graduate students are trained to plan, prepare and deliver effective scientific presentations.

Grade Mode: Credit/No Credit Grade Only

BMR 664 ORDRC Colloquium 1 Credit hour

A seminar course where published articles in the field of obesity and obesity-related diseases are presented and discussed.

Grade Mode: Credit/No Credit Grade Only

BMR 665 CDRC Colloquium 1 Credit hour

A seminar-style series that will focus on recent advances in topics related to cardiovascular disease.

Grade Mode: Credit/No Credit Grade Only

BMR 674 Teaching Practicum 1 Credit hour

Students gain experience in teaching using a variety of methods in a supervised setting.

Grade Mode: Credit/No Credit Grade Only

BMR 676 CBR Journal Club 1 Credit hour

Mentored journal club preparation with monthly presentation in cellular and molecular biology research.

Grade Mode: Normal Grading Mode

BMR 679 Special Problems 1 Credit hour

Intensive study of a selected topic or problem. Emphasizes independent study.

Grade Mode: Credit/No Credit Grade Only

BMR 680 Seminar 1 Credit hour

Study and discussion of current topics related to the Biomedical Sciences.

Grade Mode: Credit/No Credit Grade Only

BMR 681 Thesis 1-6 Credit hours

Grade Mode: Credit/No Credit Grade Only

BMR 785 Intro to Research**1-6 Credit hours**

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.

Grade Mode: Credit/No Credit Grade Only

BMR 882 Research**1-15 Credit hours**

Grade Mode: Credit/No Credit Grade Only

Clinical Translational Science**CTS 600 Epi Used in Med Research****3 Credit hours**

Practical application of epidemiology and biostatistics used in medical research. The course will primarily focus on the design and analysis of translational studies.

Grade Mode: Normal Grading Mode

CTS 610 Study Design & Stats**3 Credit hours**

Students will participate in an internship with faculty in providing consultation services in study design and statistics for medical research projects.

Grade Mode: Normal Grading Mode

CTS 611 Machine Learn Journal Club**1 Credit hour**

Articles that describe either clinical or translational research along with machine learning techniques will be discussed. Students are expected to read, describe and present at these fourteen, 1 hour weekly sessions.

Grade Mode: Credit/No Credit Grade Only

CTS 612 Intro Clin Machine Learn**3 Credit hours**

This course is designed for those who are interested in using machine learning with a focus on translational medical research, which is concerned with bringing bioscience research discoveries into patient care. This course explores the characteristic of its methods, its benefits and limitations. Explain and describe different learning algorithm machine learning journal club is optional.

Grade Mode: Normal Grading Mode

CTS 614 Online Survey Tools**3 Credit hours**

This course will introduce Redcap, explore relational DB terms, I2B2, a research data warehouse counting tool, and data manipulation using MS SQL queries, functions, procedures along with C# using LINQ.

Grade Mode: Normal Grading Mode

CTS 615 Intro Clinical Databases**3 Credit hours**

This course is an introduction to the concepts of database processing and management especially as it relates to clinical translational research. The focus is to bring bioscience research discoveries into patient care. Primary topics include discussions of major database types, history of databases and database issues, security, database principles, DBMS, RDBMS, SQL queries, Big Data, Marshall Clinical Data Warehouse.

Grade Mode: Normal Grading Mode

CTS 616 Intro Clinical Program C#**3 Credit hours**

Course will present C#, a tool that can be used to manipulate data within the Clinical database using LINQ/other to connect the application to the database. The focus is on translational research, which is concerned with bringing bioscience research discoveries into patient care. This course is designed for those who are interested in medical research programming using console/web/smart-phone application technology.

Grade Mode: Normal Grading Mode

CTS 620 Basic Research Operations**3 Credit hours**

This course will focus on the operation of clinical research trials, providing an overview of the critical aspects involved in all stages of clinical trials.

Grade Mode: Normal Grading Mode

CTS 625 Clinical Operations Lab**1-6 Credit hours**

This course is a hands on experience in Clinical Research trial operation. The course provides an opportunity for students to work with clinical research professionals on FDA-directed clinical trials.

Pre-req: CTS 620.

Grade Mode: Credit/No Credit Grade Only

CTS 628 Intro to Java Cln Prog**4 Credit hours**

The goal of this course is to expose clinical informatics students to programming in Java for common problem solving tasks. This course will focus on topics related to object-oriented programming with emphasis on object oriented design and style, classes, recursion, searching and sorting, simple data structures, and graphical user interfaces.

Grade Mode: Normal Grading Mode

CTS 630 Fundamentals of Team Science**2 Credit hours**

This course offers practical guidance about how best to engage in team science to pursue complex science questions and work effectively with team members.

Grade Mode: Normal Grading Mode

CTS 632 Qualitative Research**1 Credit hour**

This course is designed as an introduction to qualitative research methods. It offers various approaches to designing and conducting qualitative research projects in health and health services research. Students will gain hands-on experience in various qualitative methods and analysis techniques while carrying out a research project related to their area of interest.

Grade Mode: Credit/No Credit Grade Only

CTS 635 Writing and Peer Review**1 Credit hour**

This course teaches students to become more effective writers of scientific publications.

Grade Mode: Normal Grading Mode

CTS 637 Introduction to Tableau**3 Credit hours**

Tableau is a business/clinical intelligence tool that makes it easier to process an ever-increasing stream of clinical information through data visualization, data discovery, visual analytics, dashboards, and visual storytelling. In this course, students will learn the fundamentals of creating interactive visual displays using an industry standard visualization tool using real medical data.

Grade Mode: Normal Grading Mode

CTS 640 Clinical Trials Journal Club**1 Credit hour**

This course will be presentations and discussions of the recent literature in the area of clinical trials. Fundamental principles and new discoveries will be emphasized.

Grade Mode: Credit/No Credit Grade Only

CTS 645 Navigating Health IT**3 Credit hours**

The quality of healthcare data is critical to clinical & translational research and medical practice. Getting the right data is difficult without a basic understanding of health information systems (HIS) and medical classification standards. This course provides an overview of these HIS and standards in the healthcare industry and enables gathering and use of HIS data effectively.

Grade Mode: Normal Grading Mode

CTS 650 Rural Clinical Experience**5 Credit hours**

This course will acquaint students with the issues of rural community health and wellness, which will allow them to participate in clinical studies in a rural environment.

Pre-req: CTS 620.**Grade Mode:** Credit/No Credit Grade Only**CTS 660 Appalachian Phenotype****3 Credit hours**

The course will describe the clinical presentations, epidemiology and molecular phenotype of disorders common in the Appalachian region.

Grade Mode: Normal Grading Mode**Microbiology****MCB 620 Prin Medical Microbiology****6 Credit hours**

The study of microorganisms, immunobiology, immunologic diseases, host resistance and the means by which diseases are produced and prevented.

Grade Mode: Normal Grading Mode**MCB 622 Curr Topics Molec Biology****1 Credit hour**

Critical discussion of current literature/concepts. Participants present published research papers on topics with a molecular biology component. Presentations are followed by discussion/evaluation of the contribution of the research.

Grade Mode: Credit/No Credit Grade Only**MCB 631 Medical Microbiology I****3 Credit hours**

This course will present the major aspects of the field of medical microbiology with emphasis on selected pathogenic organisms.

Pre-req: BMS 600.**Grade Mode:** Normal Grading Mode**MCB 632 Medical Microbiology II****2 Credit hours**

This course will present a continuation of the major aspects of the field of medical microbiology with emphasis on the major pathogenic organisms.

Pre-req: BMS 600 and MCB 631.**Grade Mode:** Normal Grading Mode**MCB 642 Graduate Microbiology I****4 Credit hours**

An advanced treatment of microbiology with emphasis on the molecular aspects of anatomy, taxonomy, and physiology and genetics of microorganisms.

Grade Mode: Normal Grading Mode**MCB 643 Principles of Immunology****3 Credit hours**

Basic principles of the immune response system of humans and related mammals. Concepts of B & T cell function and inter-relationships emphasized.

Grade Mode: Normal Grading Mode**MCB 648 Molec Aspects of Pathogenesis****3 Credit hours**

An in depth study of molecular mechanisms of bacterial, viral, and immune-mediated disease processes.

Grade Mode: Normal Grading Mode**MCB 660 Diagnostic Virology****3 Credit hours**

A comprehensive survey of methodologies used to detect and characterize viral specific antibodies and antigens and the status of cellular immunity in virus infected hosts.

Pre-req: MCB 620.**Grade Mode:** Normal Grading Mode**MCB 675 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**MCB 676 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**MCB 677 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**MCB 679 Special Problems****1-3 Credit hours****Grade Mode:** Normal Grading Mode**MCB 720 Microbiology****6 Credit hours****Grade Mode:** Normal Grading Mode**MCB 743 Principles of Immunology****3 Credit hours**

Basic principles of the immune response system of humans and related mammalian representatives. The concepts of B and T cell function and their interrelationships will be emphasized.

Grade Mode: Normal Grading Mode**MCB 780 Elective Special Projects****1 Credit hour****Grade Mode:** Normal Grading Mode**MCB 785 Independent Study****1-15 Credit hours**

Independent Study in Microbiology is designed to allow the student the opportunity to work with a faculty member on a topic of special interest.

Grade Mode: Credit/No Credit Grade Only**MCB 813 Research in Microbiology****1-18 Credit hours****Grade Mode:** Normal Grading Mode**MCB 814 Clin Lab Microbiol Immun****1-18 Credit hours****Grade Mode:** Normal Grading Mode**Pharmacology****PMC 610 Intro Pharmacology****3 Credit hours****Grade Mode:** Normal Grading Mode**PMC 615 Pharmacology Reviews****1 Credit hour****Grade Mode:** Normal Grading Mode**PMC 620 Medical Pharmacology****8 Credit hours**

An introduction to the basic concepts of drug actions and therapeutic principles governing drug therapy. Emphasis is placed on general mechanisms, therapeutic uses and toxicity of prototypic drugs.

Pre-req: BIC 620.**Grade Mode:** Normal Grading Mode**PMC 621 Medical Pharmacology I****6 Credit hours**

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.

Pre-req: BMS 600.**Grade Mode:** Normal Grading Mode**PMC 622 Medical Pharmacology II****2 Credit hours**

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 mens and womens health, dermatological agents, and toxicology.

Pre-req: BMS 600.**Grade Mode:** Normal Grading Mode**PMC 625 Drug Metabolism****3 Credit hours**

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.

Grade Mode: Normal Grading Mode

PMC 630 Chem Aspects Pharmacology 3 Credit hours

An introduction to the chemical principles of pharmacology. The chemical classification, acid-base chemistry and stereo- chemical properties of drugs and the reactivity of drugs with biological systems will be discussed.

Grade Mode: Normal Grading Mode

PMC 633 Vistas in Pharmacology 3 Credit hours

Pre-req: PMC 620.

Grade Mode: Normal Grading Mode

PMC 635 Neuropharmacology 3 Credit hours

A study of the actions of drugs on the nervous system.

Pre-req: BMS 600.

Grade Mode: Normal Grading Mode

PMC 639 Neuropharm Res Tech 3 Credit hours

Class participants will be exposed to state-of-the-art neuropharmacology research techniques while in the laboratories of neuropharmacology faculty.

Grade Mode: Credit/No Credit Grade Only

PMC 640 Behavioral Pharmacology 3 Credit hours

Behavioral methods for assaying drug action.

Pre-req: PMC 635.

Grade Mode: Normal Grading Mode

PMC 643 Intro Cardiopulmonary Pharm 3 Credit hours

A general overview of the principles of pharmacology and the mechanisms and effects of cardiovascular and respiratory drugs.

Grade Mode: Normal Grading Mode

PMC 645 Adv Cardiopulmonary Pharm 3 Credit hours

An indepth presentation of pharmacological aspects of cardiovascular and pulmonary systems. Current knowledge, principles and methods used in cardiopulmonary research will be discussed.

Pre-req: PMC 620 or PMC 643.

Grade Mode: Normal Grading Mode

PMC 650 General Toxicology 3 Credit hours

Pre-req: PMC 620.

Grade Mode: Normal Grading Mode

PMC 655 Toxicology Reviews 1 Credit hour

This course will provide a presentation and discussion of current literature in the area of toxicology. Fundamental principles and new discoveries will be emphasized.

Grade Mode: Normal Grading Mode

PMC 675 Special Topics 1-4 Credit hours

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode

PMC 676 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

PMC 677 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

PMC 720 Medical Pharmacology 8 Credit hours

Grade Mode: Normal Grading Mode

PMC 780 Elective Special Projects 1 Credit hour

Grade Mode: Normal Grading Mode

PMC 785 Clinical Pharmacology 1-18 Credit hours

Independent Study of Pharmacology

Grade Mode: Pass/Fail Grading Mode

PMC 868 PMC Externship 1-18 Credit hours

Out-of-State Externship

Grade Mode: Pass/Fail Grading Mode

Pharmacy**PHAR 511 Clinical Immunology 1 Credit hour**

Skills 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.

Grade Mode: Normal Grading Mode

PHAR 521 Integrated Laboratory I 2 Credit hours

This is a laboratory course to provide hands-on experience that complements didactic presentations in PHAR 531 and PHAR 532.

Pre-req: PHAR 531.

Co-req: PHAR 532

Grade Mode: Normal Grading Mode

PHAR 522 Fund Med Chem 2 Credit hours

An introductory course providing the fundamental basics of drug action. Specifically, the course will cover the physicochemical properties of drugs, basic principles of medical chemistry and structure activity relationships, including drug-receptor interactions, theories of drug action and drug metabolism.

Grade Mode: Normal Grading Mode

PHAR 531 Biopharmaceutics I 3 Credit hours

Topics covered include the physicochemical 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.

Grade Mode: Normal Grading Mode

PHAR 532 Biopharmaceutics II 3 Credit hours

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 dosage.

Pre-req: PHAR 531.

Co-req: PHAR 521

Grade Mode: Normal Grading Mode

PHAR 541 Pharmacy Practice I 4 Credit hours

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.

Grade Mode: Normal Grading Mode

PHAR 542 Immunology and Microbiology 4 Credit hours

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 disease.

Grade Mode: Normal Grading Mode

PHAR 543 Pharmacy Practice II**4 Credit hours**

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.

Pre-req: PHAR 541.**Grade Mode:** Normal Grading Mode**PHAR 544 Prin of Disease & Drug Action****4 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 545 Therapeutics I****4 Credit hours**

Students will learn about the therapeutic use, human physiology, pharmacologic and chemical properties of over-the-counter medication and non-medication interventions for both treatment and prevention of disease.

Pre-req: PHAR 541.**Grade Mode:** Normal Grading Mode**PHAR 546 Pharmaceutical Biochemistry****4 Credit hours**

This course is designed to provide biochemistry fundamentals to PharmD students. Topics covered include structures and properties of water and biomolecules (proteins, lipids, and nucleic acids), enzymes and enzyme kinetics, membranes, receptors, transporters, signaling, human metabolism, hormonal regulation of metabolism, and basics of genomics, gene regulation, and proteins synthesis. Examples of basic principles covered in this class will be illustrated by use of the top 200 drugs.

Grade Mode: Normal Grading Mode**PHAR 611 Integrated Laboratory II****1 Credit hour**

Practical hands-on experience in modern scientific methods used in biochemistry, pharmaceuticals, pharmacology, pharmacometrics; and analytical methods employed to detect, characterize, and quantitate naturally occurring substances and drug molecules.

Grade Mode: Normal Grading Mode**PHAR 612 Therapeutic Drug Dosing****1 Credit hour**

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.

Grade Mode: Normal Grading Mode**PHAR 621 Pharmacy Law & Ethics****2 Credit hours**

An applied analysis of federal and West Virginia state law and ethical standards in the practice of Pharmacy and Pharmaceutical Care.

Grade Mode: Normal Grading Mode**PHAR 622 Drug Info & Comm Skills****2 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 631 Pharmacometrics****3 Credit hours**

Topics covered include the basic theory of pharmacokinetics and pharmacodynamics; process and mechanisms controlling the rate and extent of drug absorption and systemic availability; bioavailability and bioequivalence.

Grade Mode: Normal Grading Mode**PHAR 632 PPM Leadership****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 633 Patient Care Skills Lab****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 634 PPM Finance****3 Credit hours**

The contemporary practice of pharmacy in the healthcare system as it fits into the business environment. Healthcare systems, pharmacoeconomics, planning, evaluating, and decision-making through financial report analysis/case study are stressed.

Grade Mode: Normal Grading Mode**PHAR 635 Research Outcomes Patient Care****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 661 Therapeutics II****6 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 671 Therapeutics III****7 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 711 Med Therapy Management****1 Credit hour**

The student will learn to resolve medication-related problems to reduce costs and improve outcomes.

Grade Mode: Normal Grading Mode**PHAR 712 Capstone Diabetes Care****1 Credit hour**

Diabetes care capstone.

Grade Mode: Normal Grading Mode**PHAR 721 Therapeutics 7****2 Credit hours**

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 co-morbidities and other health conditions.

Grade Mode: Normal Grading Mode

- PHAR 722 PPM Patient Safety** **2 Credit hours**
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.
Grade Mode: Normal Grading Mode
- PHAR 731 Case Studies** **3 Credit hours**
Students will apply the principles of patient care, practice management, and public health to drug therapy issues through student-centered, problem-based instructional processes.
Grade Mode: Normal Grading Mode
- PHAR 732 Clin Aspects Rx Meds** **3 Credit hours**
A discussion of the clinical aspects of medications will be covered with an emphasis on 1) pharmaceutical calculations and 2) analysis of the differences between various drugs and drug classes.
Grade Mode: Normal Grading Mode
- PHAR 733 Residency Preparation** **3 Credit hours**
This course will help to prepare the pharmacy student for completion of postgraduate training, exploring processes including research project design and execution, interviewing, residency applications, and professional development.
Grade Mode: Normal Grading Mode
- PHAR 734 Medications of Abuse** **3 Credit hours**
This course discusses medications of abuse and their impact on society, reviews the history of substance use disorder relating them to current affairs and the impact on society.
Grade Mode: Normal Grading Mode
- PHAR 741 Ther-Endocrine** **4 Credit hours**
Students will learn about the therapeutic use of medication and non-medication interventions for reproduction, and treatment and prevention of endocrine and genitourinary diseases.
Grade Mode: Normal Grading Mode
- PHAR 751 Neuro & Psychiatric Dis** **5 Credit hours**
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.
Grade Mode: Normal Grading Mode
- PHAR 761 HemeOnc Nutrition Hepa MS** **6 Credit hours**
Students will learn treatment/prevention of heme-onc, nutrition, hepatic and musculoskeletal diseases including the pathophysiology, pharmacology and therapy. This course emphasizes the pharmacist as a health care provider.
Grade Mode: Normal Grading Mode
- PHAR 781 Veterinary Pharmacy** **3 Credit hours**
To instruct students in the administration, clinical pharmacology, clinical applications, diseases, medication safety and comparative dosing of veterinary medications that a pharmacist may encounter in the community pharmacy setting.
Grade Mode: Normal Grading Mode
- PHAR 801 Special Topics I** **1-6 Credit hours**
An opportunity for individual students to gain advanced experiences in practice, research, or service. Students will identify mentor and jointly develop individualized learning outcomes and a learning plan.
Grade Mode: Normal Grading Mode
- PHAR 802 Special Topics II** **1-6 Credit hours**
An opportunity for students to didactically explore advanced topics within the profession of pharmacy.
Grade Mode: Normal Grading Mode
- PHAR 811 Pharm Prac Exp I (IPPE 1)** **1 Credit hour**
Grade Mode: Normal Grading Mode
- PHAR 812 Pharm Prac Exp II (IPPE II)** **1 Credit hour**
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.
Grade Mode: Normal Grading Mode
- PHAR 813 IPPE 3 Community 2** **1 Credit hour**
Builds on the foundation of the Community Pharmacy 1 experience. The student will demonstrate critical thinking and problem solving skills, topical compounding skills, and professional attitude and behaviors.
Grade Mode: Normal Grading Mode
- PHAR 814 Intro Phar Institutions 2** **1 Credit hour**
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.
Grade Mode: Normal Grading Mode
- PHAR 815 Phar Prac Exp 5 IPPE 5** **1 Credit hour**
Introduces pharmacist student to the ambulatory care setting. Student will demonstrate the ability to develop a therapeutic plan that includes the selection of appropriate drug therapy based on patient characteristics.
Grade Mode: Normal Grading Mode
- PHAR 816 Inpatient Clinical Skills** **1 Credit hour**
Introduces the pharmacy student to the clinical skills in an institutional setting needed to be successful. Student will demonstrate appropriate drug dosing and drug selection based on patient characteristics.
Grade Mode: Normal Grading Mode
- PHAR 817 Intro Phar Prac Exp IPPE 7** **1 Credit hour**
Students are exposed to the role and responsibilities of a pharmacy team leader, manager, or director and the application of management strategy, tools, and responsibilities.
Grade Mode: Normal Grading Mode
- PHAR 818 Education IPPE 8** **1 Credit hour**
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.
Grade Mode: Normal Grading Mode
- PHAR 819 Long Care of Patient** **1 Credit hour**
This course will provide the student with pharmacy care of a patient over an extended period of time. Students will be exposed to the role and responsibilities of the pharmacist. The student will demonstrate knowledge of the medical regimen and an understanding of why the medical regimen was or was not modified over a period of time.
Grade Mode: Normal Grading Mode
- PHAR 821 IPPE Institutional** **2 Credit hours**
The Introductory Pharmacy Practice Experience in Institutions is designed to allow the student to demonstrate knowledge and skill learned in the classroom while concurrently gaining understanding to the systems and function of the pharmacy in an institutional setting.
Grade Mode: Normal Grading Mode

PHAR 881 APPE 1-General Medicine**5 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 882 APPE 2-Amb Care/Prim Care****5 Credit hours**

The Amb Care / Prim 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.

Grade Mode: Normal Grading Mode**PHAR 883 APPE 3-Advanced Community****5 Credit hours**

This is a 5-week advanced pharmacy practice experience in a community pharmacy setting that focuses on enhancing a student's ability to provide patient-centered pharmacy care services such as disease management, medication therapy management, preventative health screening, immunizations, specialty compounding, patient education, or other advanced patient care activities.

Grade Mode: Normal Grading Mode**PHAR 884 APPE 4-Adv Institutional****5 Credit hours**

This is a 5-week experiential rotation in an approved health system that prepares the student to function within 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 function as a staff hospital pharmacist.

Grade Mode: Normal Grading Mode**PHAR 885 APPE 5-Geriatrics****5 Credit hours**

This 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 patient.

Grade Mode: Normal Grading Mode**PHAR 886 APPE 6-Diverse Populations****5 Credit hours**

This is a 5-week required advanced pharmacy practice experience in a community, ambulatory, or other pharmacy setting to a medically under-served population. Students will utilize a variety of skills obtained throughout the curriculum. 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).

Grade Mode: Normal Grading Mode**PHAR 887 APPE 7 & 8-Electives****5 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 891 Pharmacy Capstone****4 Credit hours**

Pharmacy capstone experience where students are challenged to demonstrate acquisition of pharmacy skill, knowledge, and behavior competency.

Grade Mode: Normal Grading Mode**Physiology****PHS 626 Neurophysiology I****1 Credit hour**

To study and understand the basic functional principles of the cells of the nervous system, and organization of cells into functional systems.

Pre-req: BMS 600.**Grade Mode:** Normal Grading Mode**PHS 627 Neurophysiology II****1 Credit hour**

To study and understand the major functional systems of the brain.

Pre-req: PHS 626.**Grade Mode:** Normal Grading Mode**PHS 628 Mammalian Neurophysiology****2 Credit hours**

This course is a basic introductory, survey course covering neurophysiology from sub-cellular level to behavioral level.

Grade Mode: Normal Grading Mode**PHS 629 Mammalian Physiology****6 Credit hours**

A study of mammalian systems including pulmonary, renal, cardiovascular, gastrointestinal, endocrinological and nervous systems. Emphasis will be placed on homeostatic mechanisms and on experimental approaches to physiology.

Grade Mode: Normal Grading Mode**PHS 630 Experimental Physiology****1 Credit hour**

A laboratory course in mammalian physiology which includes instruction in surgical preparation, bioinstrumentation technique and open-chest surgery in dogs.

Grade Mode: Normal Grading Mode**PHS 631 Physiology Practicum****2 Credit hours**

Experience in laboratory instruction of medical and graduate students in the mammalian physiology laboratory.

Grade Mode: Normal Grading Mode**PHS 632 Physiology of Sleep****1 Credit hour**

Detailed examination of changes in EEG, EMG, cardiorespiratory function and ocular motility during sleep.

Pre-req: PHS 629.**Grade Mode:** Normal Grading Mode**PHS 634 Advanced Neurophysiology****1-2 Credit hours**

Bioelectric potentials. A.C. and D.C. potentials, trans-cortical potentials, E.E.G., corneo-retinal potential, blood-CSF potential, etc.

Pre-req: PHS 629.**Grade Mode:** Normal Grading Mode**PHS 638 Adv Cardiovascular Phys****1-2 Credit hours****Pre-req:** PHS 629.**Grade Mode:** Normal Grading Mode**PHS 639 Neurophys Res Tech****3 Credit hours**

Class participants will be exposed to state-of-the-art neurophysiology research techniques while in the laboratories of neurophysiology faculty.

Grade Mode: Credit/No Credit Grade Only

PHS 661 Endocrinology**3 Credit hours**

An in depth study of the endocrine system with special emphasis on the role of experimentation in the development of concepts in endocrine physiology (PR: BMS 600 or Equivalent; Permission)

Pre-req: BMS 600.**Grade Mode:** Normal Grading Mode**PHS 666 Physiology of the Cell****3 Credit hours**

An in-depth study of selected specific topics in cell physiology.

Pre-req: BMS 600.**Grade Mode:** Normal Grading Mode**PHS 667 Experimental Appr to Phys****4 Credit hours**

This course introduces students to the fundamental principles and research underlying the normal functioning of the cardiovascular, respiratory, renal, endocrine, reproductive, nervous, and gastrointestinal systems.

Pre-req: BMS 601 and BMS 602.**Grade Mode:** Normal Grading Mode**PHS 675 Special Topics****1-4 Credit hours**

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode**PHS 676 Special Topics****1-4 Credit hours**

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode**PHS 677 Special Topics****1-4 Credit hours**

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode**PHS 701 Physiology****8 Credit hours****Grade Mode:** Normal Grading Mode**PHS 780 Elective Special Projects****1 Credit hour****Grade Mode:** Normal Grading Mode**PHS 785 Independent Study****1-15 Credit hours**

Independent Study in Physiology is designed to allow the student the opportunity to work with a faculty member on a topic of special interest.

Grade Mode: Credit/No Credit Grade Only**PHS 820 Medical Physiology****1-18 Credit hours****Grade Mode:** Normal Grading Mode

Biomedical Research, M.D./Ph.D.

Program Description

The Biomedical Sciences and Clinical and Translational Sciences departments of the Joan C. Edwards School of Medicine offer the following degrees: Doctor of Philosophy (Ph.D.), M.D./Ph.D., and Master of Science (M.S.), both thesis and non-thesis.

The primary goal of the Biomedical Research (BMR) program is to use biomedical and translational research approaches to help reduce the numerous health disparities and improve the health of the population in West Virginia and central Appalachia. To do this, students will take an interdisciplinary approach with defined interests and special in-depth training in one of the following research areas of emphasis: Cardiovascular Disease; Cell Biology; Obesity and Related Diseases;

Neurobiology and Addiction; and Toxicology and Environmental Health. 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, government, or industrial biomedical sciences.

In addition, the BMR program offers a non-thesis Master of Science degree with a medical sciences area of emphasis to improve the science foundation of students seeking admission into doctoral programs in medicine or other health-related professions. Admission into the BMR M.S. Medical Sciences program does not guarantee admission into medical school. Additionally, a research component to this emphasis is available, but not required. Students choosing the research component may work up to 19 hours per week while earning a minimum of \$10/hour. Students are expected to stay in good academic standing.

Also offered is the combined M.D./Ph.D. Students in this program blend the discovery of new knowledge with clinical medicine at the intersection of science and medicine. M.D./Ph.D. Most graduates work as physician-scientists at medical schools, conducting disease-related research and applying the results to the treatment of patients. They have a unique perspective on both the basic science and clinical science behind disease. Further general information is available at the Association of American Medical Colleges website (aamc.org (<http://www.aamc.org>)).

Biomedical Research, M.D./Ph.D.

The Joan C. Edwards School of Medicine offers a combined M.D./Ph.D. degree in partnership with the Biomedical Sciences Graduate Program at Marshall University. The curriculum takes seven to eight years to complete. Students first take years one and two of medical school. During that time they complete the requirements for BMR 785 Intro to Research. After passing the USMLE Step 1 exam at the end of year two, students begin their Ph.D. coursework and research. This takes three to four years. After completing the Ph.D. requirements, students then complete years three and four of medical school. All of the requirements for both the M.D. and Ph.D. degrees must be met.

The medical student course MDC 710 Elements of Medicine meets the requirements for BMR 601 Intro DNA, RNA & Proteins, BMR 602 Intro Cells and Metabolism, BMR 603 Regulation Cell Function, and BMR 604 Cell Basis of Disease. Other medical school courses can meet area of emphasis requirements, as determined by the student's advisory committee and the Graduate Studies Committee.

Admission Requirements

Applicants must meet the admission requirements of both Marshall University Graduate Admissions as outlined on their website - www.marshall.edu/graduate/admissions/how-to-apply-for-admission (<http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>) - and the Biomedical Research program of the Marshall University Joan C. Edwards School of Medicine. Interested persons should visit <https://jcesom.marshall.edu/research> (<https://jcesom.marshall.edu/research/>), e-mail mubiomed@marshall.edu and/or call 304-696-3365.

Biomedical Research M.D./Ph.D. Applications

Applicants interested in pursuing the combined degree should indicate this on their medical school AMCAS application.

The AMCAS application period is from June 1 to November 1, with supplemental material due by December 15.

Applications are accepted on a rolling basis and reviewed November 1 through December 15. Final decisions will be made by January 31. Applications and supplemental material will not be accepted beyond the above deadlines. A separate M.D./ Ph.D. admissions subcommittee will review the applications.

Consistent with JCESOM MD program admissions policy, all applicants are required to take the MCAT. An MCAT score of 498 or better is preferred. Provided they meet the requirements for not taking the MCAT, students from the JCESOM Medical Sciences Pathway Program who have fulfilled both the criteria for admittance to the MU JCESOM M.D. program and who have extensive research experience (e.g., co-authorship in multiple publications in peer reviewed journals) will be considered for interviews.

Graduate Assistantships for the Doctor of Philosophy Program

Accepted Ph.D. students receive tuition remission, an annual stipend, and health insurance, which are renewable for up to five years. Students also have access to Marshall University's Student Health Clinic. Students are required to pay some fees each term.

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 2-3 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 National Institutes of Health (NIH) Predoctoral grant proposal. Links to the instructions for the proposal format can be found on the BMR Graduate Program website. The grant proposal must be submitted within two months of completion of the written exam and given to the advisory committee members at least two 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 from the BMR Ph.D. program. 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 Director of Graduate Studies and the Dean of the Graduate College.

Program Requirements

Advisory Committee for Ph.D. Students

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 advisory committee will be selected by the student and research advisor, with approval from the Director of Graduate Studies and the Dean of the Graduate College required. The 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. Proposed dissertation topic;
2. All transfer credits;
3. Required and elective courses to be taken at Marshall University; and
4. All competencies to be achieved by the student during graduate study.

These details must be recorded on the Ph.D. Course of Study form and submitted for approval by the Director of Graduate Studies and the Dean of the Graduate College.

Academic Performance for all BMR Graduate Students

- Maintain a minimum of a 3.0 Grade Point Average (GPA). 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 Graduate Studies Committee and Director of Graduate Studies 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 Vice Dean for Research and Graduate Education and the Graduate Studies Committee, will determine whether the student is retained or dismissed from the program. Retention must be recommended by the advisor and 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 and should not exceed 12 credit hours. 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 when the student submits an approved Course of Study form (Ph.D.) or an approved Plan of Study form (M.S.). 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 that 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.

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 (BMR 882 Research) at the beginning of each semester or summer term for which progress is to be earned. No more than 15 hours of 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 Office of Research and Graduate Education. Candidates must also follow the current Graduate College Guide for Preparation and Submission of Electronic Theses and Dissertations, which can be downloaded from the Graduate College website.

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 Director of Graduate Studies, 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 Director of Graduate Studies 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 (<http://www.marshall.edu/graduate/current-students/edt/>).

Survey of Earned Doctorates

Students are asked to 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 <https://sedsurvey.org/>.

Publication

All doctoral dissertations and their abstracts will be microfilmed through ProQuest. 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 Research Graduate Program or Graduate Admissions Office.

2. Receipt of the following official application materials and required fee by the Graduate Admissions Office: application, GRE scores, and transcript(s). International applicants must meet the application requirements of the Office of International Student Services.
3. Receipt of the program online form, written statement addressing educational and career goals, and three recommendations in the Office of Research and Graduate Education by March 1.
4. The Ph.D. Admissions Committee will review completed applications, then interview the top applicants.
5. The Biomedical Research Graduate Program notifies the Graduate Admissions Office and the applicant of the decision of the Admissions Committee.
6. The accepted student arrives in July for boot camp, starts their first laboratory rotation, and registers for coursework.
7. An advisor is selected by the end of the first year. After the dissertation advisor has been selected, an advisory committee is formed. A Ph.D. Course of Study should be completed by the start of the second 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 project by the advisory committee, the Biomedical Research 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 Graduate College deadline. 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 approval for the defense from the Biomedical Research Graduate Program and the Graduate College 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 (<http://www.marshall.edu/graduate/current-students/edt/>).

Biomedical Research, M.S. (Non-Thesis)

Program Description

The Biomedical Sciences and Clinical and Translational Sciences departments of the Joan C. Edwards School of Medicine offer the following degrees: Doctor of Philosophy (Ph.D.), M.D./Ph.D., and Master of Science (M.S.), both thesis and non-thesis.

The primary goal of the Biomedical Research (BMR) program is to use biomedical and translational research approaches to help reduce the

numerous health disparities and improve the health of the population in West Virginia and central Appalachia. To do this, students will take an interdisciplinary approach with defined interests and special in-depth training in one of the following research areas of emphasis: Cardiovascular Disease; Cell Biology; Obesity and Related Diseases; Neurobiology and Addiction; and Toxicology and Environmental Health. 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, government, or industrial biomedical sciences.

In addition, the BMR program offers a non-thesis Master of Science degree with a medical sciences area of emphasis to improve the science foundation of students seeking admission into doctoral programs in medicine or other health-related professions. Admission into the BMR M.S. Medical Sciences program does not guarantee admission into medical school. Additionally, a research component to this emphasis is available, but not required. Students choosing the research component may work up to 19 hours per week while earning a minimum of \$10/hour. Students are expected to stay in good academic standing.

Also offered is the combined M.D./Ph.D. Students in this program blend the discovery of new knowledge with clinical medicine at the intersection of science and medicine. M.D./Ph.D. Most graduates work as physician-scientists at medical schools, conducting disease-related research and applying the results to the treatment of patients. They have a unique perspective on both the basic science and clinical science behind disease. Further general information is available at the Association of American Medical Colleges website ([aamc.org](http://www.aamc.org) (<http://www.aamc.org>)).

Admission Requirements

Applicants must meet the admission requirements of both Marshall University Graduate Admissions as outlined on their website - www.marshall.edu/graduate/admissions/how-to-apply-for-admission/ (<http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>) - and the Biomedical Research program of the Marshall University Joan C. Edwards School of Medicine. Interested persons should visit <https://jcesom.marshall.edu/research> (<https://jcesom.marshall.edu/research/>), e-mail mubiomed@marshall.edu and/or call 304-696-3365.

Biomedical Research M.S. (Thesis and Non-Thesis) Applicants

Minimum Admission Requirements

- A baccalaureate degree from a regionally accredited college or university
- Successfully completed, with a grade of C or better, one year of general biology, physics, general chemistry, and organic chemistry, all with associated laboratories. A semester of biochemistry or molecular biology with associated laboratory is also required.
- A recommended minimum Grade Point Average (GPA) of 3.0
- A recommended minimum GPA of 3.0 in combined science and math courses
- Official transcript from degree granting institution/s and institutions where relevant post-baccalaureate or graduate coursework was taken

- Departmental materials: three recommendations, program online form, written statement addressing educational and career goals, CV/resume

Priority Deadline - June 1 for Best Chance of Admission

Applications are accepted on a rolling basis and are reviewed until the class is filled. Applications will be considered after the priority deadline until June 30, if openings are available. The completed application, application fee, official transcript(s), three recommendations, written statement, and official GRE scores should be received in the Graduate Admissions Office by June 1. *For the Medical Sciences area of emphasis only, no entrance exam is required.* The program online form should be received in the Office of Research and Graduate Education by June 1.

Duration of Degree Program

Students are expected to complete the degree within two years. This includes the summer between years one and two for M.S. (thesis) students.

Entry Term

B.M.R. M.S. (thesis) students may matriculate in July (summer III term) or in August (fall term). B.M.R. M.S. (non-thesis) students with an area of emphasis in Medical Sciences must matriculate in the fall term only.

Qualifying for Admission into Marshall University

Joan C. Edwards School of Medicine without the MCAT (Pathway Program) Requirements

- Have a minimum 3.4 GPA in the BMR, M.S. Medical Sciences program at the time of the Marshall University Joan C. Edwards School of Medicine (MUJCESOM) interview
- Graduate from the program with a minimum of a 3.4 GPA
- Pass the M.S. comprehensive exam on the first attempt in May of the program's second year

Benefits

- An MCAT score will not be required for admittance to MUJCESOM
- For interview purposes, out-of-state applicants will be considered the same as in-state students, regardless of residency. Marshall University JCESOM tuition cost will be based on residency status.
- With satisfactory standing, students will receive the mandatory program letter of support.

Program Requirements

Biomedical Research, M.S. (Non-Thesis Medical Sciences Area of Emphasis)

A minimum of 36 credit hours is required for the non-thesis degree. In addition, the student must pass a written comprehensive examination covering

Code	Title	Credit Hours
BMR 601	Intro DNA, RNA & Proteins	3
BMR 602	Intro Cells and Metabolism	3
BMR 603	Regulation Cell Function	2
BMR 604	Cell Basis of Disease	1

BMR 882	Research	1-15
Or have a research		

To remain in good academic standing and to graduate, the student must have a minimum graduate GPA of 3.0.

Biomedical Research, M.S. (Non-Thesis Medical Sciences Research Area of Emphasis)

A minimum of 36 credit hours is required for the non-thesis degree. In addition, the student must pass a written comprehensive examination covering

Code	Title	Credit Hours
BMR 601	Intro DNA, RNA & Proteins	3
BMR 602	Intro Cells and Metabolism	3
BMR 603	Regulation Cell Function	2
BMR 604	Cell Basis of Disease	1
BMR 882	Research	1-15
Or have a research		

To remain in good academic standing and to graduate, the student must have a minimum graduate GPA of 3.0.

Plan of Study

Biomedical Research, M.S. (Non-Thesis Medical Sciences Area of Emphasis)

All students are required to successfully complete the following core curriculum:

Code	Title	Credit Hours
Core Curriculum		
BMR 601	Intro DNA, RNA & Proteins	3
BMR 602	Intro Cells and Metabolism	3
BMR 603	Regulation Cell Function	2
BMR 604	Cell Basis of Disease	1
Select one of the following or equivalent:		3
BMR 617	BMR Statistics Technique	
BSC 517	Biostatistics	
EDF 676	Statistical Methods	
PSY 517	Inter Behavioral Stat	
STA 518	Biostatistics	
BMR 680	Seminar (minimum of 4 hrs.)	1
BMR 785	Intro to Research	1-6
MCB 631	Medical Microbiology I	3
MCB 632	Medical Microbiology II	2
PHS 628	Mammalian Neurophysiology	2
Total Credit Hours		21-26

Electives

Code	Title	Credit Hours
PHS 629	Mammalian Physiology	6
PMC 621	Medical Pharmacology I	6
PMC 622	Medical Pharmacology II	2

In addition, after 12 hours of coursework has been completed, the student must submit to an M.S. Plan of Study form to the Dean of the Graduate College.

Biomedical Research, M.S. (Non-Thesis Medical Sciences Research Area of Emphasis)

All students are required to successfully complete the following core curriculum:

Code	Title	Credit Hours
Core Curriculum		
BMR 601	Intro DNA, RNA & Proteins	3
BMR 602	Intro Cells and Metabolism	3
BMR 603	Regulation Cell Function	2
BMR 604	Cell Basis of Disease	1
Select one of the following or equivalent:		3
BMR 617	BMR Statistics Technique	
BSC 517	Biostatistics	
EDF 676	Statistical Methods	
PSY 517	Inter Behavioral Stat	
STA 518	Biostatistics	
BMR 680	Seminar (minimum of 4 hrs.)	1
BMR 785	Intro to Research	1-6
BMR 882	Research (minimum of 12 hrs.)	12
Total Credit Hours		26-31

Recommended Elective Classes

Code	Title	Credit Hours
CTS 614	Online Survey Tools	3
PHS 629	Mammalian Physiology	6
MCB 631	Medical Microbiology I	3
MCB 632	Medical Microbiology II	2

In addition, after 12 hours of coursework has been completed, the student must submit an M.S. Plan of Study form to the Dean of the Graduate College.

Biomedical Research, M.S. (Thesis)

Program Description

The Biomedical Sciences and Clinical and Translational Sciences departments of the Joan C. Edwards School of Medicine offer the following degrees: Doctor of Philosophy (Ph.D.), M.D./Ph.D., and Master of Science (M.S.), both thesis and non-thesis.

The primary goal of the Biomedical Research (BMR) program is to use biomedical and translational research approaches to help reduce the numerous health disparities and improve the health of the population in West Virginia and central Appalachia. To do this, students will take an interdisciplinary approach with defined interests and special in-depth training in one of the following research areas of emphasis: Cardiovascular Disease; Cell Biology; Obesity and Related Diseases; Neurobiology and Addiction; and Toxicology and Environmental Health. 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, government, or industrial biomedical sciences.

In addition, the BMR program offers a non-thesis Master of Science degree with a medical sciences area of emphasis to improve the science foundation of students seeking admission into doctoral programs in medicine or other health-related professions. Admission into the BMR M.S. Medical Sciences program does not guarantee admission into medical school. Additionally, a research component to this emphasis is available, but not required. Students choosing the research component may work up to 19 hours per week while earning a minimum of \$10/hour. Students are expected to stay in good academic standing.

Also offered is the combined M.D./Ph.D. Students in this program blend the discovery of new knowledge with clinical medicine at the intersection of science and medicine. M.D./Ph.D. Most graduates work as physician-scientists at medical schools, conducting disease-related research and applying the results to the treatment of patients. They have a unique perspective on both the basic science and clinical science behind disease. Further general information is available at the Association of American Medical Colleges website (aamc.org (<http://www.aamc.org>)).

Admission Requirements

Applicants must meet the admission requirements of both Marshall University Graduate Admissions as outlined on their website - www.marshall.edu/graduate/admissions/how-to-apply-for-admission (<http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>) - and the Biomedical Research program of the Marshall University Joan C. Edwards School of Medicine. Interested persons should visit <https://jcesom.marshall.edu/research> (<https://jcesom.marshall.edu/research/>), e-mail mubiomed@marshall.edu and/or call 304-696-3365.

Biomedical Research M.S. (Thesis and Non-Thesis) Applicants

Minimum Admission Requirements

- A baccalaureate degree from a regionally accredited college or university
- Successfully completed, with a grade of C or better, one year of general biology, physics, general chemistry, and organic chemistry, all with associated laboratories. A semester of biochemistry or molecular biology with associated laboratory is also required.
- A recommended minimum Grade Point Average (GPA) of 3.0
- A recommended minimum GPA of 3.0 in combined science and math courses
- Official transcript from degree granting institution/s and institutions where relevant post-baccalaureate or graduate coursework was taken

- Departmental materials: three recommendations, program online form, written statement addressing educational and career goals, CV/resume

Priority Deadline - June 1 for Best Chance of Admission

Applications are accepted on a rolling basis and are reviewed until the class is filled. Applications will be considered after the priority deadline until June 30, if openings are available. The completed application, application fee, official transcript(s), three recommendations, written statement, and official GRE scores should be received in the Graduate Admissions Office by June 1. *For the Medical Sciences area of emphasis only, no entrance exam is required.* The program online form should be received in the Office of Research and Graduate Education by June 1.

Duration of Degree Program

Students are expected to complete the degree within two years. This includes the summer between years one and two for M.S. (thesis) students.

Entry Term

B.M.R. M.S. (thesis) students may matriculate in July (summer III term) or in August (fall term). B.M.R. M.S. (non-thesis) students with an area of emphasis in Medical Sciences must matriculate in the fall term only.

Qualifying for Admission into Marshall University

Joan C. Edwards School of Medicine without the MCAT (Pathway Program)

Requirements

- Have a minimum 3.4 GPA in the BMR, M.S. Medical Sciences program at the time of the Marshall University Joan C. Edwards School of Medicine (MUJCESOM) interview
- Graduate from the program with a minimum of a 3.4 GPA
- Pass the M.S. comprehensive exam on the first attempt in May of the program's second year

Benefits

- An MCAT score will not be required for admittance to MUJCESOM
- For interview purposes, out-of-state applicants will be considered the same as in-state students, regardless of residency. Marshall University JCESOM tuition cost will be based on residency status.
- With satisfactory standing, students will receive the mandatory program letter of support.

Program Requirements

Biomedical Research, M.S. (Thesis - Cardiovascular Disease, Cell Biology; Neurobiology and Addiction; Obesity and Related Diseases; Toxicology and Environmental Health)

Degree Requirements

All students are required to meet the general requirements of the Graduate College for receipt of a master's degree. A minimum of 32 credit hours is required for the thesis degree with no more than six hours of thesis (BMR 681 Thesis) credited toward the 32 credit hour requirement. Each student will specialize in one of the five areas of

emphasis as defined in the program description. If the non-thesis master's degree is pursued, a minimum of 36 credit hours is required.

To remain in good academic standing and to graduate, the student must have a minimum graduate GPA of 3.0.

Advisory Committee for M.S. (Thesis) Students

The advisory committee should be formed no later than the end of the first year of graduate education. As soon as the committee has been identified, a Thesis Committee Formation form is completed and submitted to the Director of Graduate Studies.

The advisory committee will be selected by the student and research advisor, with approval from the Director of Graduate Studies required. The committee will be composed of at least three 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.

In addition, after 12 hours of coursework has been completed, the student must submit an M.S. Plan of Study form to the Dean of the Graduate College.

Plan of Study

All students are required to successfully complete the following core curriculum:

Code	Title	Credit Hours
Core Curriculum		
BMR 601	Intro DNA, RNA & Proteins	3
BMR 602	Intro Cells and Metabolism	3
BMR 603	Regulation Cell Function	2
BMR 604	Cell Basis of Disease	1
BMR 617	BMR Statistics Technique	3
BMR 644	Research Conduct	1
BMR 660 or BMR 661	Communication Bio Sci I Communication Bio Sci II	1
BMR 680	Seminar (minimum of 4 hrs.)	1
BMR 785	Intro to Research	4
Total Credit Hours		19

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 Research, M.S. and Pharm.D.

Students can receive both an M.S. degree from the Biomedical Research Program and a Pharm.D. degree from the School of Pharmacy. Prospective students must apply to and meet the admission requirements for both programs. The curriculum takes five years to complete. In the first year, students take BMR courses; in years 2-5 students take School of Pharmacy courses.

Plan of Study

All students are required to successfully complete:

Course	Title	Credit Hours
First Year		
First Semester		
BMR 601	Intro DNA, RNA & Protiens	3
BMR 602	Intro Cells and Metabolism	3
BMR 680	Seminar	1
PHS 628	Mammalian Neurophysiology	2
Credit Hours		9
Second Semester		
BMR 603	Regulation Cell Function	2
BMR 604	Cell Basis of Disease	1
BMR 680	Seminar	1
BMR 785	Intro to Research	1-6
PHS 629	Mammalian Physiology	6
Credit Hours		11-16
Second Year		
Third Semester		
PHAR 511	Clinical Immunology	1
PHAR 531	Biopharmaceutics I ¹	3
PHAR 541	Pharmacy Practice I	4
PHAR 542	Immunology and Microbiology ²	4
PHAR 546	Pharmaceutical Biochemistry	4
PHAR 811	Pharm Prac Exp I (IPPE 1)	1
Credit Hours		17
Fourth Semester		
PHAR 521	Integrated Laboratory I	2
PHAR 532	Biopharmaceutics II	3
PHAR 543	Pharmacy Practice II	4
PHAR 544	Prin of Disease & Drug Action	4
PHAR 545	Therapeutics I ³	4
PHAR 812	Pharm Prac Exp II (IPPE II)	1
Credit Hours		18
Third Year		
Fifth Semester		
PHAR 611	Integrated Laboratory II	1
PHAR 621	Pharmacy Law & Ethics	2
PHAR 622	Drug Info & Comm Skills	2
PHAR 631	Pharmacometrics	3
PHAR 632	PPM Leadership	3
PHAR 661	Therapeutics II	6
PHAR 813	IPPE 3 Community 2	1
Credit Hours		18
Sixth Semester		
PHAR 612	Therapeutic Drug Dosing	1
PHAR 633	Patient Care Skills Lab	3
PHAR 634	PPM Finance	3
PHAR 635	Research Outcomes Patient Care ⁴	3
PHAR 671	Therapeutics III ³	7

PHAR 814	Intro Phar Institutions 2	1
Credit Hours		18

Fourth Year

Seventh Semester

PHAR 711	Med Therapy Management	1
PHAR 722	PPM Patient Safety	2
PHAR 741	Ther-Endocrine	4
PHAR 751	Neuro & Psychiatric Dis	5
PHAR 815	Phar Prac Exp 5 IPPE 5	1
PHAR 816	Inpatient Clinical Skills	1
Elective I		3
Credit Hours		17

Eighth Semester

PHAR 721	Therapeutics 7	2
PHAR 731	Case Studies	3
PHAR 761	HemeOnc Nutrition Hepa MS	6
PHAR 817	Intro Phar Prac Exp IPPE 7	1
PHAR 818	Education IPPE 8	1
Elective 2		3
Credit Hours		16

Fifth Year

Ninth Semester

Fall and Spring		
PHAR 881	APPE 1-General Medicine	5
PHAR 882	APPE 2-Amb Care/Prim Care	5
PHAR 883	APPE 3-Advanced Community	5
PHAR 884	APPE 4-Adv Institutional	5
PHAR 885	APPE 5-Geriatrics	5
PHAR 886	APPE 6-Diverse Populations	5
Elective 3		3
Elective 4		3
Capstone 1		3
Capstone 2		3
Credit Hours		42
Total Credit Hours		166-171

- ¹ PHAR 531 Biopharmaceutics I and PHAR 546 Pharmaceutical Biochemistry substitute for PMC 625 Drug Metabolism and PMC 630 Chem Aspects Pharmacology.
- ² PHAR 542 Immunology and Microbiology substitutes for MCB 631 Medical Microbiology I.
- ³ PHAR 545 Therapeutics I and PHAR 671 Therapeutics III substitute for BMR 680 Seminar. This will meet the 4 hr. minimum requirement for seminar for the M.S. degree.
- ⁴ PHAR 635 Research Outcomes Patient Care substitutes for BMR 617 BMR Statistics Technique a BMR requirement.

Non-Thesis Degree

A minimum of 36 credit hours is required for a non-thesis degree in the BMR program.

Code	Title	Credit Hours
BMR 601	Intro DNA, RNA & Protiens	3
BMR 602	Intro Cells and Metabolism	3

BMR 680	Seminar	1
BMR 628	Neuroscience I	3
BMR 603	Regulation Cell Function	2
BMR 604	Cell Basis of Disease	1
BMR 680	Seminar	1
BMR 785	Intro to Research	3
PHS 629	Mammalian Physiology	6
PHAR 531	Biopharmaceutics I	3
PHAR 542	Immunology and Microbiology	4
PHAR 545	Therapeutics I	4
PHAR 546	Pharmaceutical Biochemistry	4
PHAR 635	Research Outcomes Patient Care	3
PHAR 671	Therapeutics III	7
Total Credit Hours		48

In addition, the student must pass a written and/or an oral comprehensive examination to receive the M.S. degree.

Biomedical Research, Ph.D. Program Description

The Biomedical Sciences and Clinical and Translational Sciences departments of the Joan C. Edwards School of Medicine offer the following degrees: Doctor of Philosophy (Ph.D.), M.D./Ph.D., and Master of Science (M.S.), both thesis and non-thesis.

The primary goal of the Biomedical Research (BMR) program is to use biomedical and translational research approaches to help reduce the numerous health disparities and improve the health of the population in West Virginia and central Appalachia. To do this, students will take an interdisciplinary approach with defined interests and special in-depth training in one of the following research areas of emphasis: Cardiovascular Disease; Cell Biology; Obesity and Related Diseases; Neurobiology and Addiction; and Toxicology and Environmental Health. 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, government, or industrial biomedical sciences.

In addition, the BMR program offers a non-thesis Master of Science degree with a medical sciences area of emphasis to improve the science foundation of students seeking admission into doctoral programs in medicine or other health-related professions. Admission into the BMR M.S. Medical Sciences program does not guarantee admission into medical school. Additionally, a research component to this emphasis is available, but not required. Students choosing the research component may work up to 19 hours per week while earning a minimum of \$10/hour. Students are expected to stay in good academic standing.

Also offered is the combined M.D./Ph.D. Students in this program blend the discovery of new knowledge with clinical medicine at the intersection of science and medicine. M.D./Ph.D. Most graduates work as physician-scientists at medical schools, conducting disease-related research and applying the results to the treatment of patients. They have a unique perspective on both the basic science and clinical science behind disease. Further general information is available at the Association of American Medical Colleges website (aamc.org (<http://www.aamc.org>)).

Biomedical Research, 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.

Admission Requirements

Applicants must meet the admission requirements of both Marshall University Graduate Admissions as outlined on their website - www.marshall.edu/graduate/admissions/how-to-apply-for-admission (<http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>) - and the Biomedical Research program of the Marshall University Joan C. Edwards School of Medicine. Interested persons should visit <https://jcesom.marshall.edu/research> (<https://jcesom.marshall.edu/research/>), e-mail mubiomed@marshall.edu and/or call 304-696-3365.

Ph.D. Applicants

Minimum Admission Requirements

- A baccalaureate degree from a regionally accredited college or university
- Successful completion, with a grade of C or better, of one year each of general biology, physics, general chemistry, and organic chemistry, all with associated laboratories. A semester of biochemistry or molecular biology with associated laboratory is also required.
- A recommended minimum Grade Point Average (GPA) of 3.0
- A recommended minimum GPA of 3.0 in combined science and math courses
- Graduate Record Examination (GRE) General Test scores
- Official transcript from degree granting institution/s; other transcripts may be required
- Departmental materials: three recommendations, program online form, written statement addressing educational and career goals, CV/resume

Priority Deadline - March 1 for Best Chance of Admission

Applications are accepted on a rolling basis and are reviewed until the class is filled. Applications will be considered after the priority deadline until June 30, if openings are available. International applicants must meet the international application deadline of March 15. The completed application, application fee, official transcript(s), and official GRE scores should be received in the Graduate Admissions Office by March 1. MCAT scores will be considered for admission on a case-by-case basis. For the application to be complete, the program online form, written statement addressing educational and career goals, and three recommendations should be received in the Office of Research and Graduate Education by March 1.

Duration of Degree Program

Doctoral degree students are expected to complete the requirements within five years. Students who possess an M.S. degree in Biomedical Research or the equivalent when admitted into the doctoral degree program generally require three to four years to complete the Doctor of Philosophy degree.

Entry Term

BMR Ph.D. students will matriculate in July (summer III term). The first week will be devoted to orientation and Preparation for Graduate Academics (PGA) Boot Camp. This allows students to learn more about research opportunities, get to know their cohort and current students, acclimate to a new environment, and get a head start on their research rotations.

Program Requirements

Before graduating, students are required to write and publish three peer-reviewed manuscripts, two of which must be as first author.

To remain in good academic standing and to graduate, the student must have a minimum graduate GPA of 3.0.

Plan of Study

To qualify for the Doctor of Philosophy degree, the student must pass (C or better or CR) the following courses:

Code	Title	Credit Hours
BMR 601	Intro DNA, RNA & Proteins	3
BMR 602	Intro Cells and Metabolism	3
BMR 603	Regulation Cell Function	2
BMR 604	Cell Basis of Disease	1
BMR 617	BMR Statistics Technique	3
BMR 644	Research Conduct	1
BMR 660/661	Communication Bio Sci I	1
BMR 680	Seminar (minimum of 6 hrs.)	1
BMR 785	Intro to Research	1-6
BMR 882	Research	1-15
Total Credit Hours		17-36

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 Ph.D. Course of Study form. The student must also pass a written and oral exam prior to becoming a Ph.D. candidate. These exams are set by the advisory committee and are outlined below under Admission to Candidacy.

Clinical and Translational Science M.S.

Program Description

The Clinical and Translational Science (CTS) Department in the Marshall University Joan C. Edwards School of Medicine offers a Master of Science (M.S.) degree in Clinical and Translational Science. The goal of this program is to equip physicians in-training and other biomedical scientists with the information and training they need to translate basic clinical advances into improved patient care that will enhance the quality of life for patients in the Appalachian region, particularly southern West Virginia.

Students will receive education in clinical trial design, epidemiology, statistics, informatics, and translational research. Graduates of this program in the Clinical Trials area of emphasis will be able to lead clinical trials of new drugs and procedures in West Virginia, particularly in its rural regions. They also will be strong applicants for positions

in schools of medicine and medical centers that have clinical and translational science centers. Clinical Research graduates can apply to doctoral programs in medicine or other health-related fields having a superior background in basic science, epidemiology, informatics, and statistics. Clinical Informatics graduates will have a background in bioinformatics, computer programming, and clinical trials design, thus making them strong candidates for positions in schools of medicine, medical centers, and the health care industry.

Admission Requirements Clinical and Translational Science M.S. Admission Policy

Applicants must meet the admission requirements of both Marshall University Graduate Admissions as outlined on their website - www.marshall.edu/graduate/admissions/how-to-apply-for-admission/ - and the Marshall University Joan C. Edwards School of Medicine Clinical and Translational Science Department Admissions Committee. Interested persons should visit <https://jcesom.marshall.edu/research> (<https://jcesom.marshall.edu/research/>), e-mail mubiomed@marshall.edu and/or call 304-696-3365.

Minimum Admission Requirements

- A baccalaureate degree from a regionally accredited college or university. The degree must be completed prior to matriculation.
- Successful completion, with a grade of C or better, of one year of general biology, physics, general chemistry, and organic chemistry, all with associated laboratories. Successful completion of undergraduate courses in biochemistry and cell biology are highly recommended but not required.
- A recommended minimum Grade Point Average (GPA) of 3.0.
- A recommended minimum GPA of 3.0 in combined science and math courses.
- Official transcript from degree granting institution/s; other transcripts may be required.
- Departmental materials: three recommendations, program online form, written statement addressing educational and career goals, CV/résumé.

Applications are accepted on a rolling basis and are reviewed until the class is filled. Applications are only considered once we have received all required documentation. Applications will be considered until June 30, if openings are available. International applicants must meet the International deadline of March 15. The Clinical and Translational Sciences M.S. program is highly competitive thus early applications provide the best chance for acceptance.

Entrance into the Clinical and Translational Science M.S. program is restricted to fall semester only.

Who Should Apply

- Undergraduates.
- Medical students at an LCME-accredited U.S. medical school with a current GPA of at least a 3.0.
- Postgraduate medical residents or fellows who have an M.D. or D.O. with a graduating GPA of 3.0 or better (equivalent GPA for foreign medical graduates).
- Ph.D.'s in biomedical sciences or Pharm.D.'s with graduating GPAs of 3.0 or better.

Medical students will apply to the program during their third year of training. After completing the requirements for the M.S. degree, students will finish the fourth year of medical school.

Medical residents and fellows who are admitted into this program will need to integrate coursework into a reduced clinical workload, thus extending their postgraduate medical education by two years.

Program Requirements

Duration of the Program

Students will attend full-time and complete the requirements for the Master of Science degree in two years. This includes attending during the summer between years one and two.

Degree Requirements

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. In addition, all students must pass a written and/or oral comprehensive exam.

Plan of Study

Clinical and Translational Science, M.S. (Clinical Informatics Area of Emphasis)

All students are required to successfully complete the following curriculum.

Course	Title	Credit Hours
First Year		
First Semester		
BMR 660	Communication Bio Sci I	1
BMR 680	Seminar	1
CTS 600	Epi Used in Med Research	3
CTS 620	Basic Research Operations	3
CTS 635	Writing and Peer Review	1
CTS 640	Clinical Trials Journal Club	1
Credit Hours		10
Second Semester		
BMR 661	Communication Bio Sci II	1
BMR 680	Seminar	1
CTS 610	Study Design & Stats	3
CTS 614	Online Survey Tools	3
CTS 630	Fundamentals of Team Science	2
CTS 640	Clinical Trials Journal Club	1
Credit Hours		11
Third Semester		
Summer		
CTS 650	Rural Clinical Experience	5
Credit Hours		5
Second Year		
Fourth Semester		
CTS 611	Machine Learn Journal Club	1
CTS 612 & CTS 615	Intro Clin Machine Learn and Intro Clinical Databases	6

CTS 616	Intro Clinical Program C#	3
Credit Hours		10
Fifth Semester		
CTS 611	Machine Learn Journal Club	1
CTS 628 & CTS 637	Intro to Java Cln Prog and Introduction to Tableau	7
CTS 645	Navigating Health IT	3
Credit Hours		11
Total Credit Hours		47

Clinical and Translational Science, M.S. (Clinical Research Area of Emphasis)

All students are required to successfully complete the following curriculum.

Course	Title	Credit Hours
First Year		
First Semester		
BMR 601	Intro DNA, RNA & Proteins	3
BMR 602	Intro Cells and Metabolism	3
BMR 680	Seminar	1
CTS 600	Epi Used in Med Research	3
CTS 635	Writing and Peer Review	1
CTS 640	Clinical Trials Journal Club	1
Credit Hours		12
Second Semester		
BMR 603	Regulation Cell Function	2
BMR 604	Cell Basis of Disease	1
BMR 680	Seminar	1
CTS 614	Online Survey Tools	3
CTS 640	Clinical Trials Journal Club	1
PHS 667	Experimental Appr to Phys	4
Credit Hours		12
Third Semester		
Summer		
BMR 785	Intro to Research	1-6
Credit Hours		1-6
Second Year		
Fourth Semester		
BMR 680	Seminar	1
CTS 640	Clinical Trials Journal Club	1
CTS 660	Appalachian Phenotype	3
PMC 621	Medical Pharmacology I	6
Credit Hours		11
Fifth Semester		
BMR 680	Seminar	1
CTS 610	Study Design & Stats	3
CTS 640	Clinical Trials Journal Club	1
PMC 622	Medical Pharmacology II	2
Credit Hours		7
Total Credit Hours		43-48

Clinical and Translational Science, M.S. (Clinical Trials Area of Emphasis)

All students are required to successfully complete the following curriculum.

Course	Title	Credit Hours
First Year		
First Semester		
BMR 660	Communication Bio Sci I	1
BMR 680	Seminar	1
CTS 600	Epi Used in Med Research	3
CTS 620	Basic Research Operations	3
CTS 635	Writing and Peer Review	1
CTS 640	Clinical Trials Journal Club	1
Credit Hours		10
Second Semester		
BMR 661	Communication Bio Sci II	1
BMR 680	Seminar	1
CTS 610	Study Design & Stats	3
CTS 614	Online Survey Tools	3
CTS 630	Fundamentals of Team Science	2
CTS 640	Clinical Trials Journal Club	1
Credit Hours		11
Third Semester		
Summer		
CTS 650	Rural Clinical Experience	5
Credit Hours		5
Second Year		
Fourth Semester		
BMR 680	Seminar	1
CTS 625	Clinical Operations Lab	1-6
CTS 640	Clinical Trials Journal Club	1
CTS 660	Appalachian Phenotype	3
Credit Hours		6-11
Fifth Semester		
BMR 680	Seminar	1
CTS 625	Clinical Operations Lab	1-6
CTS 640	Clinical Trials Journal Club	1
Credit Hours		3-8
Total Credit Hours		35-45

Physician Assistant, M.S. Physician Assistant

Program Description

The Physician Assistant Program in the Marshall University Joan C. Edwards School of Medicine offers a Master of Medical Science Physician Assistant Degree. This program will prepare students to practice as Physician Assistants in primary and specialty care across the life span, to patients in culturally diverse and rural settings. The program will provide students with the tools and skills to support

lifelong learning, to apply evidence-based medicine in practice and to work in inter-professional teams.

Students must meet all minimum admission requirements for the Graduate College of Marshall University. Please refer to the current admission requirements in this catalog.

In addition to the minimum requirements above, applicants must meet the following:

1. Prerequisite classes – all prerequisites should have been taken within the last 10 years.

- General Chemistry with lab -- 8 credit hours
- Statistics --- 3 credit hours
- Anatomy with lab -- 4 credit hours
- Physiology with lab -- 4 credit hours
- Organic Chemistry 1 with lab or Biochemistry -- 4 credit hours
- Microbiology with lab -- 3 credit hours
- Medical Terminology -- one semester (1 credit hour - 3 credit hours)
- Psychology – 3 credit hours
- College Algebra -- 3 credit hours (Can be replaced with Pre-Calculus or Calculus)

2. Bachelor's degree from a regionally accredited U.S. college or university, or international equivalent

3. PA shadowing --- some PA shadowing is encouraged, with the goal of understanding the role of a Physician Assistant. If an applicant is invited for an interview, the applicant will be expected to discuss briefly the role of a PA. Hours of shadowing should be documented on the application.

4. Required GPA

Required GPA overall is 3.0/ 4.0 scale on all undergraduate, post-baccalaureate, and graduate courses taken, both science and non-science, as calculated by CASPA. Required GPA for admission prerequisites is 3.0/4.0 scale as calculated by the program.

Notes Regarding GPA:

Marshall University will calculate GPAs for international applicants. Anatomy with lab and Physiology with lab may be replaced with Anatomy and Physiology 1 and 2 with labs ---- for a total of 8 hours. No AP credit will be accepted for any prerequisite courses.

All prerequisites must have an assigned grade and not Pass/Fail. Online or virtual labs will not be accepted as prerequisite courses. Required Science GPA of 3.0/4.0 scale on all courses with subject codes of Biology/Zoology, Chemistry (Inorganic, Organic, and Biochemistry), Physics, and other science, as calculated by CASPA.

A valid GRE is required (less than five years old), or a valid MCAT can be substituted.

Marshall University will utilize the Centralized Application Service for Physician Assistant Programs (CASPA) application for all applications. A personal statement and three letters of recommendation will be required for the CASPA application.

#Applicants who are WV residents will be given additional points in the admission rubric

#Applicants who have obtained or will obtain by matriculation an undergraduate degree from Marshall University will be granted an interview as long as they meet basic admission requirements.

Students must have health insurance coverage by the time of matriculation.

Basic computer skills to include use of e-mail and to conduct web-based and electronic searches.

Admission is selective and will be on a rolling admission cycle.

Applicants may apply prior to obtaining all prerequisite courses or obtaining their baccalaureate degree. Applicants who have not completed all prerequisites, the baccalaureate degree, or both may be temporarily admitted pending completion of admission requirements. Temporary admission status will be rescinded if all admission requirements are not met prior to matriculation.

Course	Title	Credit Hours
First Year		
Spring		
PAS 500	Foundations of Medicine	7
PAS 520	Gross Anatomy for the PA	4
PAS 530	Pharmacology Principles	4
PAS 550	History and Physical Exam	3
	Credit Hours	18
Summer		
PAS 600	Clinical Medicine I	6
PAS 601	Pharmacology for the PA I	2
PAS 602	Clinical Concepts I	2
PAS 603	Clinical Assessment I	2
	Credit Hours	12
Second Year		
Fall		
PAS 610	Clinical Medicine II	6
PAS 611	Pharmacology for the PA II	2
PAS 612	Clinical Concepts II	2
PAS 613	Clinical Assessment II	2
PAS 614	Testing and Procedures II	2
PAS 615	Health Policy for the PA	2
PAS 616	Clinical Specialties I	3
	Credit Hours	19
Spring		
PAS 620	Clinical Medicine III	6
PAS 621	Pharmacology for the PA III	2
PAS 622	Clinical Concepts III	2
PAS 623	Clinical Assessment III	2
PAS 624	Testing and Procedures III	2
PAS 625	PA Professional Practice	2
PAS 626	Clinical Specialties II	3
PAS 627	Psychiatry for the PA	2
	Credit Hours	21
Third Year		
Fall		
Clinical Year		
PAS 650	PA Primary Care I	4
PAS 651	PA Primary Care II	4

PAS 652	PA Psychiatry I	4
PAS 653	PA Internal Medicine I	4
PAS 654	PA Internal Medicine Sub	4
PAS 655	PA Women's Health	4
PAS 656	PA Pediatrics	4
PAS 657	PA General Surgery	4
PAS 658	PA Emergency Medicine	4
PAS 659	Orthopaedics	4
PAS 660	PA Clinical Elective	4
	Credit Hours	44
	Total Credit Hours	114

School of Pharmacy

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Programs

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- Pharmaceutical Sciences, M.S. (Thesis Option) (p. 313)
- Pharmacy, Dual Degree: Pharm.D. and M.B.A. (p. 314)
- Pharmacy, Dual Degree: Pharm.D. and M.P.H. (p. 314)
- Pharmacy, Pharm.D. (p. 316)

Courses

Biomedical Research

BMR 601 Intro DNA, RNA & Proteins 3 Credit hours

A molecular and cell biological study of the structure and function of nucleic acids and proteins.

Grade Mode: Normal Grading Mode

BMR 602 Intro Cells and Metabolism 3 Credit hours

A molecular and cell biological study of the structure of cells and of cellular metabolism.

Grade Mode: Normal Grading Mode

BMR 603 Regulation Cell Function 2 Credit hours

An advanced molecular and cell biological study of cell metabolism and the regulation of cell function.

Grade Mode: Normal Grading Mode

BMR 604 Cell Basis of Disease 1 Credit hour

A molecular and cell biological study of the basis of diseases prevalent in Appalachia

Grade Mode: Normal Grading Mode

BMR 617 BMR Statistics Technique 3 Credit hours

An application-oriented course in statistical concepts and techniques aimed at prospective researchers in the biomedical sciences.

Grade Mode: Normal Grading Mode

BMR 628 Neuroscience I 3 Credit hours

To study and understand the structure and function of the nervous system and disorders of neuronal function.

Pre-req: BMR 600.

Grade Mode: Normal Grading Mode

BMR 629 Neuroscience II**3 Credit hours**

To study and understand the structure and function of the nervous system and disorders of neuronal function.

Pre-req: BMR 628.

Grade Mode: Normal Grading Mode

BMR 631 Neurosci/DevBio Lit Review**1 Credit hour**

Published articles in the neuroscience literature will be presented by all class members. Each presentation will include background introduction methods, results, and discussion of the neuroscience research.

Grade Mode: Credit/No Credit Grade Only

BMR 641 Molecular Development**3 Credit hours**

An in-depth discussion of current literature in developmental biology with emphasis on early embryo development, morphogenesis, lineage determination and regulation of developmental process.

Pre-req: BIC 628.

Grade Mode: Normal Grading Mode

BMR 644 Research Conduct**1 Credit hour**

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.

Grade Mode: Credit/No Credit Grade Only

BMR 651 Cancer Biology**4 Credit hours**

An advanced graduate course on the core principles of initiation, progression, treatment and prevention of cancer, based on current literature. (PR: BMR 601, 602, 603, 604, and permission of instructor).

Pre-req: BMR 601 and BMR 602 and BMR 603 and BMR 604.

Grade Mode: Normal Grading Mode

BMR 652 Cancer Biol Colloquium**1 Credit hour**

This is a mentored journal club for graduate students covering selected areas of current interest in cancer biology research.

Grade Mode: Credit/No Credit Grade Only

BMR 660 Communication Bio Sci I**1 Credit hour**

Biomedical graduate students are trained to plan, prepare and deliver effective scientific presentations.

Grade Mode: Credit/No Credit Grade Only

BMR 661 Communication Bio Sci II**1 Credit hour**

Biomedical graduate students are trained to plan, prepare and deliver effective scientific presentations.

Grade Mode: Credit/No Credit Grade Only

BMR 664 ORDRC Colloquium**1 Credit hour**

A seminar course where published articles in the field of obesity and obesity-related diseases are presented and discussed.

Grade Mode: Credit/No Credit Grade Only

BMR 665 CDRC Colloquium**1 Credit hour**

A seminar-style series that will focus on recent advances in topics related to cardiovascular disease.

Grade Mode: Credit/No Credit Grade Only

BMR 674 Teaching Practicum**1 Credit hour**

Students gain experience in teaching using a variety of methods in a supervised setting.

Grade Mode: Credit/No Credit Grade Only

BMR 676 CBR Journal Club**1 Credit hour**

Mentored journal club preparation with monthly presentation in cellular and molecular biology research.

Grade Mode: Normal Grading Mode

BMR 679 Special Problems**1 Credit hour**

Intensive study of a selected topic or problem. Emphasizes independent study.

Grade Mode: Credit/No Credit Grade Only

BMR 680 Seminar**1 Credit hour**

Study and discussion of current topics related to the Biomedical Sciences.

Grade Mode: Credit/No Credit Grade Only

BMR 681 Thesis**1-6 Credit hours**

Grade Mode: Credit/No Credit Grade Only

BMR 785 Intro to Research**1-6 Credit hours**

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.

Grade Mode: Credit/No Credit Grade Only

BMR 882 Research**1-15 Credit hours**

Grade Mode: Credit/No Credit Grade Only

Pharmaceutical Sciences**MSPS 511 Grad Research Seminar****1 Credit hour**

This course lays the foundation in oral communication for graduate students in pharmaceutical sciences. It provides experience in scientific presentation with an emphasis on defense of data and interpretation.

Grade Mode: Normal Grading Mode

MSPS 512 Med Chem & Drug Disc**1 Credit hour**

This course gives an overview of drug discovery principles and techniques for the practicing medicinal chemist.

Grade Mode: Normal Grading Mode

MSPS 513 Biopharm 2**1 Credit hour**

Topics include mechanisms immediate and sustained drug release in formulations; novel drug delivery systems; drug pre-formulation; the drug approval process; drug preparation, liberation, absorption and stability of dosage forms.

Grade Mode: Normal Grading Mode

MSPS 514 Resb Conduct Research**1 Credit hour**

This course will help graduate students in pharmaceutical science become familiar with the general ethical issues that will arise through the course of basic science research. This course will help graduate students understand how to conduct ethical research, identify and focus on unethical situations in research, and how to solve future unethical dilemmas that may arise in the workplace.

Grade Mode: Normal Grading Mode

MSPS 531 Regulatory Affairs**3 Credit hours**

An overview of USFDA's regulation on drug. Topics covered include pharmaceutical regulatory agencies and organizations around the world and their International Regulatory Audits for Pharma, International Conference on Harmonization (ICH) guidelines, Pharmacopoeias and national formulary, US Food and Drug Administration (USFDA): History of USFDA Law and Regulation, GLP, MMP, NDA, and ANDA.

Grade Mode: Normal Grading Mode

MSPS 542 Science Seminars**1 Credit hour**

This course will help graduate students in the pharmaceutical sciences learn the basics of scientific communication and how to critically evaluate scientific literatures. Students must complete four versions of this course for credit. For the first three course offerings, the student will receive a "CR" (credit) or "NC" (no credit). Upon completion of the fourth version of the course the student will receive a letter grade.

Grade Mode: Normal Grading Mode**MSPS 581 Special Topics****1-3 Credit hours**

Special Topics

Grade Mode: Normal Grading Mode**MSPS 585 Independent Study****1-3 Credit hours**

Independent Study

Grade Mode: Normal Grading Mode**MSPS 586 Problem Report****1-3 Credit hours**

Problem Report

Grade Mode: Normal Grading Mode**MSPS 612 Pharm Analysis****1 Credit hour**

Pharmaceutical Analysis

Grade Mode: Normal Grading Mode**MSPS 613 Pharmacometrics Recitation****1 Credit hour**

Pharmacometrics recitation

Grade Mode: Normal Grading Mode**MSPS 632 Prod Dev by Quality Design****3 Credit hours**

Product Development by Quality by Design

Grade Mode: Normal Grading Mode**MSPS 699 Thesis****1-6 Credit hours**

Thesis

Grade Mode: Normal Grading Mode**Pharmacy****PHAR 511 Clinical Immunology****1 Credit hour**

Skills 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.

Grade Mode: Normal Grading Mode**PHAR 521 Integrated Laboratory I****2 Credit hours**

This is a laboratory course to provide hands-on experience that complements didactic presentations in PHAR 531 and PHAR 532.

Pre-req: PHAR 531.**Co-req:** PHAR 532**Grade Mode:** Normal Grading Mode**PHAR 522 Fund Med Chem****2 Credit hours**

An introductory course providing the fundamental basics of drug action. Specifically, the course will cover the physicochemical properties of drugs, basic principles of medical chemistry and structure activity relationships, including drug-receptor interactions, theories of drug action and drug metabolism.

Grade Mode: Normal Grading Mode**PHAR 531 Biopharmaceutics I****3 Credit hours**

Topics covered include the physicochemical 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.

Grade Mode: Normal Grading Mode**PHAR 532 Biopharmaceutics II****3 Credit hours**

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 dosage.

Pre-req: PHAR 531.**Co-req:** PHAR 521**Grade Mode:** Normal Grading Mode**PHAR 541 Pharmacy Practice I****4 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 542 Immunology and Microbiology****4 Credit hours**

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 disease.

Grade Mode: Normal Grading Mode**PHAR 543 Pharmacy Practice II****4 Credit hours**

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.

Pre-req: PHAR 541.**Grade Mode:** Normal Grading Mode**PHAR 544 Prin of Disease & Drug Action****4 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 545 Therapeutics I****4 Credit hours**

Students will learn about the therapeutic use, human physiology, pharmacologic and chemical properties of over-the-counter medication and non-medication interventions for both treatment and prevention of disease.

Pre-req: PHAR 541.**Grade Mode:** Normal Grading Mode

PHAR 546 Pharmaceutical Biochemistry**4 Credit hours**

This course is designed to provide biochemistry fundamentals to PharmD students. Topics covered include structures and properties of water and biomolecules (proteins, lipids, and nucleic acids), enzymes and enzyme kinetics, membranes, receptors, transporters, signaling, human metabolism, hormonal regulation of metabolism, and basics of genomics, gene regulation, and proteins synthesis. Examples of basic principles covered in this class will be illustrated by use of the top 200 drugs.

Grade Mode: Normal Grading Mode**PHAR 611 Integrated Laboratory II****1 Credit hour**

Practical hands-on experience in modern scientific methods used in biochemistry, pharmaceuticals, pharmacology, pharmacometrics; and analytical methods employed to detect, characterize, and quantitate naturally occurring substances and drug molecules.

Grade Mode: Normal Grading Mode**PHAR 612 Therapeutic Drug Dosing****1 Credit hour**

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.

Grade Mode: Normal Grading Mode**PHAR 621 Pharmacy Law & Ethics****2 Credit hours**

An applied analysis of federal and West Virginia state law and ethical standards in the practice of Pharmacy and Pharmaceutical Care.

Grade Mode: Normal Grading Mode**PHAR 622 Drug Info & Comm Skills****2 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 631 Pharmacometrics****3 Credit hours**

Topics covered include the basic theory of pharmacokinetics and pharmacodynamics; process and mechanisms controlling the rate and extent of drug absorption and systemic availability; bioavailability and bioequivalence.

Grade Mode: Normal Grading Mode**PHAR 632 PPM Leadership****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 633 Patient Care Skills Lab****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 634 PPM Finance****3 Credit hours**

The contemporary practice of pharmacy in the healthcare system as it fits into the business environment. Healthcare systems, pharmacoeconomics, planning, evaluating, and decision-making through financial report analysis/case study are stressed.

Grade Mode: Normal Grading Mode**PHAR 635 Research Outcomes Patient Care****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 661 Therapeutics II****6 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 671 Therapeutics III****7 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 711 Med Therapy Management****1 Credit hour**

The student will learn to resolve medication-related problems to reduce costs and improve outcomes.

Grade Mode: Normal Grading Mode**PHAR 712 Capstone Diabetes Care****1 Credit hour**

Diabetes care capstone.

Grade Mode: Normal Grading Mode**PHAR 721 Therapeutics 7****2 Credit hours**

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 co-morbidities and other health conditions.

Grade Mode: Normal Grading Mode**PHAR 722 PPM Patient Safety****2 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 731 Case Studies****3 Credit hours**

Students will apply the principles of patient care, practice management, and public health to drug therapy issues through student-centered, problem-based instructional processes.

Grade Mode: Normal Grading Mode**PHAR 732 Clin Aspects Rx Meds****3 Credit hours**

A discussion of the clinical aspects of medications will be covered with an emphasis on 1) pharmaceutical calculations and 2) analysis of the differences between various drugs and drug classes.

Grade Mode: Normal Grading Mode**PHAR 733 Residency Preparation****3 Credit hours**

This course will help to prepare the pharmacy student for completion of postgraduate training, exploring processes including research project design and execution, interviewing, residency applications, and professional development.

Grade Mode: Normal Grading Mode**PHAR 734 Medications of Abuse****3 Credit hours**

This course discusses medications of abuse and their impact on society, reviews the history of substance use disorder relating them to current affairs and the impact on society.

Grade Mode: Normal Grading Mode

- PHAR 741 Ther-Endocrine** **4 Credit hours**
Students will learn about the therapeutic use of medication and non-medication interventions for reproduction, and treatment and prevention of endocrine and genitourinary diseases.
Grade Mode: Normal Grading Mode
- PHAR 751 Neuro & Psychiatric Dis** **5 Credit hours**
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.
Grade Mode: Normal Grading Mode
- PHAR 761 HemeOnc Nutrition Hepa MS** **6 Credit hours**
Students will learn treatment/prevention of heme-onc, nutrition, hepatic and musculoskeletal diseases including the pathophysiology, pharmacology and therapy. This course emphasizes the pharmacist as a health care provider.
Grade Mode: Normal Grading Mode
- PHAR 781 Veterinary Pharmacy** **3 Credit hours**
To instruct students in the administration, clinical pharmacology, clinical applications, diseases, medication safety and comparative dosing of veterinary medications that a pharmacist may encounter in the community pharmacy setting.
Grade Mode: Normal Grading Mode
- PHAR 801 Special Topics I** **1-6 Credit hours**
An opportunity for individual students to gain advanced experiences in practice, research, or service. Students will identify mentor and jointly develop individualized learning outcomes and a learning plan.
Grade Mode: Normal Grading Mode
- PHAR 802 Special Topics II** **1-6 Credit hours**
An opportunity for students to didactically explore advanced topics within the profession of pharmacy.
Grade Mode: Normal Grading Mode
- PHAR 811 Pharm Prac Exp I (IPPE 1)** **1 Credit hour**
Grade Mode: Normal Grading Mode
- PHAR 812 Pharm Prac Exp II (IPPE II)** **1 Credit hour**
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.
Grade Mode: Normal Grading Mode
- PHAR 813 IPPE 3 Community 2** **1 Credit hour**
Builds on the foundation of the Community Pharmacy 1 experience. The student will demonstrate critical thinking and problem solving skills, topical compounding skills, and professional attitude and behaviors.
Grade Mode: Normal Grading Mode
- PHAR 814 Intro Phar Institutions 2** **1 Credit hour**
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.
Grade Mode: Normal Grading Mode
- PHAR 815 Phar Prac Exp 5 IPPE 5** **1 Credit hour**
Introduces pharmacist student to the ambulatory care setting. Student will demonstrate the ability to develop a therapeutic plan that includes the selection of appropriate drug therapy based on patient characteristics.
Grade Mode: Normal Grading Mode
- PHAR 816 Inpatient Clinical Skills** **1 Credit hour**
Introduces the pharmacy student to the clinical skills in an institutional setting needed to be successful. Student will demonstrate appropriate drug dosing and drug selection based on patient characteristics.
Grade Mode: Normal Grading Mode
- PHAR 817 Intro Phar Prac Exp IPPE 7** **1 Credit hour**
Students are exposed to the role and responsibilities of a pharmacy team leader, manager, or director and the application of management strategy, tools, and responsibilities.
Grade Mode: Normal Grading Mode
- PHAR 818 Education IPPE 8** **1 Credit hour**
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.
Grade Mode: Normal Grading Mode
- PHAR 819 Long Care of Patient** **1 Credit hour**
This course will provide the student with pharmacy care of a patient over an extended period of time. Students will be exposed to the role and responsibilities of the pharmacist. The student will demonstrate knowledge of the medical regimen and an understanding of why the medical regimen was or was not modified over a period of time.
Grade Mode: Normal Grading Mode
- PHAR 821 IPPE Institutional** **2 Credit hours**
The Introductory Pharmacy Practice Experience in Institutions is designed to allow the student to demonstrate knowledge and skill learned in the classroom while concurrently gaining understanding to the systems and function of the pharmacy in an institutional setting.
Grade Mode: Normal Grading Mode
- PHAR 881 APPE 1-General Medicine** **5 Credit hours**
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.
Grade Mode: Normal Grading Mode
- PHAR 882 APPE 2-Amb Care/Prim Care** **5 Credit hours**
The Amb Care / Prim 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.
Grade Mode: Normal Grading Mode
- PHAR 883 APPE 3-Advanced Community** **5 Credit hours**
This is a 5-week advanced pharmacy practice experience in a community pharmacy setting that focuses on enhancing a student's ability to provide patient-centered pharmacy care services such as disease management, medication therapy management, preventative health screening, immunizations, specialty compounding, patient education, or other advanced patient care activities.
Grade Mode: Normal Grading Mode

PHAR 884 APPE 4-Adv Institutional**5 Credit hours**

This is a 5-week experiential rotation in an approved health system that prepares the student to function within 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 function as a staff hospital pharmacist.

Grade Mode: Normal Grading Mode**PHAR 885 APPE 5-Geriatrics****5 Credit hours**

This 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 patient.

Grade Mode: Normal Grading Mode**PHAR 886 APPE 6-Diverse Populations****5 Credit hours**

This is a 5-week required advanced pharmacy practice experience in a community, ambulatory, or other pharmacy setting to a medically under-served population. Students will utilize a variety of skills obtained throughout the curriculum. 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).

Grade Mode: Normal Grading Mode**PHAR 887 APPE 7 & 8-Electives****5 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 891 Pharmacy Capstone****4 Credit hours**

Pharmacy capstone experience where students are challenged to demonstrate acquisition of pharmacy skill, knowledge, and behavior competency.

Grade Mode: Normal Grading Mode**Public Health****PH 601 Intro Public Health****1 Credit hour**

An introduction to public health, including its foundation and history, principles and characteristics of the discipline, professional roles, and individual career development and planning.

Grade Mode: Normal Grading Mode**PH 602 Public Health Biology****2 Credit hours**

Reviews biological bases of public health issues, including principles of disease development, including genetics, oncogenesis, and immunology. May be waived for those holding appropriate degrees in biological or clinical sciences.

Grade Mode: Normal Grading Mode**PH 603 Intro to Rural Health****3 Credit hours**

Introduction to the particular issues of rural health, both domestically in the U.S. and internationally.

Grade Mode: Normal Grading Mode**PH 610 Intro to PH****2 Credit hours**

This course introduces students to the field of public health, how it works, and provides students with an opportunity to become familiar with essential concepts and resources in public health.

Grade Mode: Normal Grading Mode**PH 611 Epidemiology****3 Credit hours**

An introduction to basic concepts of including risk, study design, and analysis. Students apply these techniques to examine outbreaks, and evaluate preventives, diagnostics and treatments.

Grade Mode: Normal Grading Mode**PH 615 Health Sys Research****3 Credit hours**

An introduction to research in public health. Students examine prerequisites to successful study, as well as issues including funding, protocol design, data management, analysis, collaboration, and publication.

Co-req: PH 611, PH 621**Grade Mode:** Normal Grading Mode**PH 616 Clinical Trials****3 Credit hours**

An examination of methods and issues in conducting clinical research. Includes critical aspects of study design, protocol development, recruitment and consent, and assessment of outcomes.

Pre-req: PH 611 and PH 621.**Grade Mode:** Normal Grading Mode**PH 617 Meth Comp Study****3 Credit hours**

Examination of methods to determine the relative value of preventive, diagnostic and treatment alternatives for efficacy, cost, and practical application. Models include meta-analysis, comparative effectiveness trials, and data mining.

Pre-req: PH 611 and PH 621.**Grade Mode:** Normal Grading Mode**PH 620 PH Issues****2 Credit hours**

Provide practical situations and contemporary issues in public health where students apply knowledge and theoretical concepts from coursework, strengthen existing skills/analytic thinking, and apply public health core competencies.

Grade Mode: Normal Grading Mode**PH 621 Statistical Methods I****3 Credit hours**

Introduction to statistical principles and methods. Includes descriptive and inferential statistics. Students will gain experience in the use of SPSS software, and in the interpretation and communication of statistical tests.

Grade Mode: Normal Grading Mode**PH 622 Statistical Methods II****2 Credit hours**

Examination of procedures including multiple linear and logistic regression, survival analysis, advanced non-parametric tests, repeated measures. Students gain experience in the use of SAS software for data management and analysis.

Pre-req: PH 621.**Grade Mode:** Normal Grading Mode**PH 631 Environmental Health****2 Credit hours**

Introduction to environmental health principles, practices and policy. Students gain knowledge of the study, assessment, prevention and mitigation of exposures adversely affecting health.

Pre-req: PH 621.**Grade Mode:** Normal Grading Mode

PH 641 Social Behavioral Aspects PH**2 Credit hours**

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 changes in health status.

Grade Mode: Normal Grading Mode**PH 642 Health Communications****2 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 650 MPH Practicum****6 Credit hours**

To provide students with opportunity to apply concepts and knowledge from the MPH curriculum and demonstrate competency in the public health practice setting.

Grade Mode: Credit/No Credit Grade Only**PH 651 Public Health Services****2 Credit hours**

An introduction to public health management, planning, implementation and evaluation. Students gain an integrated understanding of public health resources and their effective utilization to improve health.

Grade Mode: Normal Grading Mode**PH 653 Rural Health Addiction****2 Credit hours**

Introduction to the public health issues of, and interventions for, alcohol, tobacco, and drug addiction in the Appalachian region, with a special emphasis on opioid addiction and drug overdose.

Grade Mode: Normal Grading Mode**PH 655 Intro Health Policy****2 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 656 Topics in Health Policy****3 Credit hours**

A study of current issues of health policy, including major issues of health reform. Students apply their skills to formulate, package, and present their own health policy proposal.

Grade Mode: Normal Grading Mode**PH 657 Public Health Prog Eval****3 Credit hours**

This course deals with the application of research methods to evaluate public health programs and health services.

Pre-req: PH 621 with a minimum grade of D.**Grade Mode:** Normal Grading Mode**PH 660 Environmental PH****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 661 Chronic Disease****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 662 Control of Inf Disease****3 Credit hours**

Examination of infectious diseases from a public health perspective, including strategies for prevention, treatment, control and eradication.

Pre-req: PH 611.**Grade Mode:** Normal Grading Mode**PH 663 Health Behavior****3 Credit hours**

This course introduces students to the models of health behavior as it applies to public health.

Grade Mode: Normal Grading Mode**PH 671 Community Health****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 672 Global Health****3 Credit hours**

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.

Pre-req: PH 611.**Grade Mode:** Normal Grading Mode**PH 678 Principles Epi in PH****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 686 Health Information Technology****3 Credit hours**

An introduction to health information technology applications and issues, as well as the growing impact of advances in biotechnology on public health.

Grade Mode: Normal Grading Mode**PH 689 Community Outreach Health****3 Credit hours**

Applied and experiential course in designing and implementing a community health outreach project for the improvement of health in rural Appalachia.

Grade Mode: Normal Grading Mode**PH 691 Health Promo & Disease Prevent****3 Credit hours**

This graduate course provides students with a broad knowledge base of health promotion and disease prevention in public health.

Grade Mode: Normal Grading Mode**PH 692 Seminar****1 Credit hour**

Introduction to health science literature review and critique, as well as presentation of research and practicum reports.

Grade Mode: Normal Grading Mode**PH 693 Law and Ethics****3 Credit hours**

Introduction to the legal and ethical foundations of public health practice, including study of how individuals, practitioners, organizations and government address key issues.

Grade Mode: Normal Grading Mode**PH 694 Practicum****3 Credit hours**

Applied public health experience conducted under guidance of a faculty advisor and site preceptor, including a specific set of proposed project and learning objectives, and utilizing a community partner.

Pre-req: PH 611 and PH 621 and PH 641 and PH 686 and PH 693.**Attributes:** No Textbook Required**Grade Mode:** Credit/No Credit Grade Only

PH 695 Research**3 Credit hours**

Student research project, under guidance of the faculty advisor.

Student project may include work towards thesis.

Pre-req: PH 611 and PH 621.**Grade Mode:** Credit/No Credit Grade Only**PH 696 Capstone****3 Credit hours**

Course provides a structured and mentored process for students to produce written and oral components of a capstone project on a selected topic or question. (PR: Prior or current PH 694 or PH 695)

Pre-req: PH 694 (may be taken concurrently) or PH 695 (may be taken concurrently).**Concurrent PR:** PH 694 or PH 695**Grade Mode:** Normal Grading Mode

Pharmaceutical Sciences, M.A. (Non-Thesis Option)

Program Description

The Department of Pharmaceutical Sciences and Research at the Marshall University School of Pharmacy offers the Master of Science (M.S.) (thesis and non-thesis options) degree with a major in Pharmaceutical Sciences. Students may complete the requirements for a M.S. under a faculty mentor in areas ranging from cellular and molecular pharmacology to antibiotic formulation and methods of drug delivery.

The M.S. (Thesis) degree in Pharmaceutical Sciences is preparation for further study or employment requiring pharmaceutical 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 applying for admission. Information about faculty may be accessed through the School of Pharmacy website (www.marshall.edu/pharmacy/about-us/staff-directory (<http://www.marshall.edu/pharmacy/about-us/staff-directory/>)). The M.S. (non-thesis) degree does not require a thesis and allows students to strengthen their education in Pharmaceutical Sciences through the completion of advanced coursework and a research program.

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 (<https://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>). Applicants are strongly encouraged to apply by April 15 for matriculation in the Fall semester or by November 15 for matriculation in the Spring semester. However, applications will be considered on a rolling basis as long as there is capacity remaining in the program.

Applicants should request that the following materials be sent directly to the Graduate Admissions Office:

- Two letters of recommendation from academic or professional references;
- Official transcripts from degree-granting institution (additional transcripts may be required at the discretion of the program).

Applicant must also have:

- An earned baccalaureate degree from an accepted, accredited institution with a degree GPA of 3.0 on a 4.0 scale. No entrance exam is required. However, Graduate Record Exam (GRE) scores may be submitted to strengthen your application. Prior to admission, prospective students must also complete an on-site or video interview.

Graduate Assistantships

A limited number of graduate assistantships are available on a competitive basis. Additional information is provided on the Graduate College graduate assistantship overview web page: www.marshall.edu/graduate/graduate-assistantship-overview/ (<https://www.marshall.edu/graduate/graduate-assistantship-overview/>).

For additional financial aid information, visit Marshall University's financial aid website (www.marshall.edu/sfa/) (<https://www.marshall.edu/sfa/>) or contact the financial aid office to speak with a representative (304-696-3162).

Program Requirements

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.A. Degree Requirements for Non-Thesis Option

- Students must complete the required graduate coursework as noted in the following section.
- Candidates must register for and participate in MSPS 542 Science Seminars, Graduate Seminar, during each of the semesters in which they are actively enrolled in the graduate program.
- Not more than 4 hours of Graduate Seminar (MSPS 542 Science Seminars) may be used to complete the M.A. program credit requirement.
- Not more than 4 semester hours credit in Independent Study or Special Topics can be used to complete the elective requirements.
- Successful completion of the master's in Pharmaceutical 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.

Plan of Study

Course	Title	Credit Hours
First Year		
First Semester		
PHAR 531	Biopharmaceutics I	3
PHAR 521	Integrated Laboratory I	2
MSPS 531	Regulatory Affairs	3
MSPS 512	Med Chem & Drug Disc	1
MSPS 542	Science Seminars	1
Credit Hours		10

Second Semester

PHAR 532	Biopharmaceutics II	3
MSPS 513	Biopharm 2	1
MSPS 542	Science Seminars	1
BMR 664	ORDRC Colloquium	1
MSPS 585	Independent Study	3
Credit Hours		9

Second Year**Third Semester**

PHAR 631	Pharmacometrics	3
MSPS 613	Pharmacometrics Recitation	1
MSPS 612	Pharm Analysis	1
MSPS 581	Special Topics	3
MSPS 542	Science Seminars	1
Credit Hours		9

Fourth Semester

MSPS 542	Science Seminars	1
MSPS 581	Special Topics	3
MSPS 632	Prod Dev by Quality Design	3
Required Course - See Advisor		2
Credit Hours		9
Total Credit Hours		37

Pharmaceutical Sciences, M.S. (Thesis Option)

Program Description

The Department of Pharmaceutical Sciences and Research at the Marshall University School of Pharmacy offers the Master of Science (M.S.) (thesis and non-thesis options) degree with a major in Pharmaceutical Sciences. Students may complete the requirements for a M.S. under a faculty mentor in areas ranging from cellular and molecular pharmacology to antibiotic formulation and methods of drug delivery.

The M.S. (Thesis) degree in Pharmaceutical Sciences is preparation for further study or employment requiring pharmaceutical 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 applying for admission. Information about faculty may be accessed through the School of Pharmacy website (www.marshall.edu/pharmacy/about-us/staff-directory (<http://www.marshall.edu/pharmacy/about-us/staff-directory/>)). The M.S. (non-thesis) degree does not require a thesis and allows students to strengthen their education in Pharmaceutical Sciences through the completion of advanced coursework and a research program.

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 (<https://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>). Applicants are strongly encouraged to apply by April 15 for matriculation in the Fall semester or by November 15 for matriculation in the Spring semester. However, applications will be

considered on a rolling basis as long as there is capacity remaining in the program.

Applicants should request that the following materials be sent directly to the Graduate Admissions Office:

- Two letters of recommendation from academic or professional references;
- Official transcripts from degree-granting institution (additional transcripts may be required at the discretion of the program).

Applicant must also have:

- An earned baccalaureate degree from an accepted, accredited institution with a degree GPA of 3.0 on a 4.0 scale. No entrance exam is required. However, Graduate Record Exam (GRE) scores may be submitted to strengthen your application. Prior to admission, prospective students must also complete an on-site or video interview.

Graduate Assistantships

A limited number of graduate assistantships are available on a competitive basis. Additional information is provided on the Graduate College graduate assistantship overview web page: www.marshall.edu/graduate/graduate-assistantship-overview/ (<https://www.marshall.edu/graduate/graduate-assistantship-overview/>).

For additional financial aid information, visit Marshall University's financial aid website (www.marshall.edu/sfa/ (<https://www.marshall.edu/sfa/>)) or contact the financial aid office to speak with a representative (304-696-3162).

Program Requirements

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 for Thesis Option

- Students must complete the graduate coursework as noted in the following section, including the thesis. The maximum number of credits that may be earned for the thesis is 12 hours.
- Candidates must register for and participate in MSPS 542 Science Seminars, Graduate Seminar, during each of the semesters in which they are actively enrolled in the graduate program.
- Not more than 4 hours of Graduate Seminar (MSPS 542 Science Seminars) may be used to complete the M.S. program credit requirement.
- Successful completion of the master's program in Pharmaceutical 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.

Plan of Study

Course	Title	Credit Hours
First Year		
First Semester		
PHAR 531	Biopharmaceutics I	3
PHAR 521	Integrated Laboratory I	2
MSPS 531	Regulatory Affairs	3
MSPS 512	Med Chem & Drug Disc	1
MSPS 542	Science Seminars	1
Credit Hours		10
Second Semester		
PHAR 532	Biopharmaceutics II	3
MSPS 513	Biopharm 2	1
MSPS 542	Science Seminars	1
BMR 664	ORDRC Colloquium	1
MSPS 699	Thesis	3
Credit Hours		9
Second Year		
First Semester		
PHAR 631	Pharmacometrics	3
MSPS 613	Pharmacometrics Recitation	1
MSPS 699	Thesis	4
MSPS 542	Science Seminars	1
Credit Hours		9
Second Semester		
MSPS 542	Science Seminars	1
MSPS 699	Thesis	5
PHAR 632	PPM Leadership	3
Credit Hours		9
Total Credit Hours		37

Pharmacy, Dual Degree: Pharm.D. and M.B.A.

Students admitted to the School of Pharmacy may also seek admission to the Graduate College to pursue a Master of Business Administration (M.B.A.) degree. The application procedure and the student's enrollment status will vary depending on the student's undergraduate degree.

All students wishing to pursue the dual degree option must first consult with the Pharm. D. advisor regarding when they should apply for admission. Students who are admitted to the M.B.A. program will be advised by a Pharm.D. advisor and an M.B.A. advisor. The advisors are responsible for ensuring students are making appropriate progress toward both degrees, enroll in the proper sequence of courses, and enroll in the proper section of the courses.

Admission Requirements

Pharm. D. Students Holding a Baccalaureate Degree: All students who have earned a baccalaureate degree from a regionally accredited college or university may apply for admission to the M.B.A. program. Students must meet the published admission criteria and complete the published degree requirements for the M.B.A. program. When

admitted, the student will be classified depending upon his or her completion of core business courses.

Pharm. D. Students Who Do Not Have a Baccalaureate Degree: Students who have not earned a baccalaureate degree from a regionally accredited college or university may apply for admission to the M.B.A. program and pursue the degree under the following conditions. During their enrollment in the two degree programs, students who do not hold the baccalaureate will be continuously classified as Provisionally Admitted for the M.B.A. program. Students beginning the final semester of the Pharm. D. program of study will apply for graduation. Students in good academic standing in both programs and eligible to receive both degrees at the end of the term will be reclassified as Fully Admitted to the M.B.A. program. Students who withdraw or are dismissed from the Pharm. D. program will also be withdrawn from the M.B.A. program regardless of level of degree completion or academic standing.

Pharmacy, Dual Degree: Pharm.D. and M.P.H.

Students admitted to the School of Pharmacy may also seek admission to the Graduate College to pursue a Master of Public Health (M.P.H.) degree. Students selecting this option will be awarded the Pharm.D. and M.P.H. degrees at the same time. The application procedure and the student's enrollment status will vary depending on the student's undergraduate degree. All students wishing to pursue the dual degree option must first consult with the Pharm.D. advisor regarding when they should apply for admission. Students who are admitted to the MPH program will be advised by a Pharm. D. advisor and an M.P.H. advisor. The advisors are responsible for ensuring students are making appropriate progress toward both degrees, enroll in the proper sequence of courses, and enroll in the proper section of the courses.

Admission Requirements

Pharm.D. Students Holding a Baccalaureate Degree: All students who have earned a baccalaureate degree from a regionally accredited college or university may apply for admission to the M.P.H. program. Students must meet the published admission criteria and complete the published degree requirements for the M.P.H. program.

Pharm. D. Students Who Do Not Have a Baccalaureate Degree: Students who have not earned a baccalaureate degree from a regionally accredited college or university may apply for admission to the M.P.H. program and pursue the degree under the following conditions. During their enrollment in the two degree programs, students who do not hold the baccalaureate will be continuously classified as Provisionally Admitted for the M.P.H. program. Students beginning the final semester of the Pharm.D. program of study will apply for graduation. Students in good academic standing in both programs and eligible to receive both degrees at the end of the term will be reclassified as Fully Admitted to the M.P.H. program. Students who withdraw or are dismissed from the Pharm.D. program will also be withdrawn from the M.P.H. program regardless of level of degree completion or academic standing.

Program Requirements

Successful completion of the following courses will result in receipt of both a Master of Public Health (44 SCH degree¹) and Doctor of pharmacy degrees (151 SCH degree).

Please note that 6 credits hours from Pharm.D. program are dual counted toward the M.P.H. degree. Thus, students receive a 44 SCH M.P.H. degree, although they only take 38 credit hours in the M.P.H. program.

- ¹ Students must choose one of the two tracks in the M.P.H. program: Global and Community Health or Research, Evaluation and Policy.

Proposed Schedule for Pharm.D./M.P.H. Students

Curriculum for students with a minimum of 62 hours. *Note:* Through this pathway, students are admitted to the MPH program in their third year of the dual degree program.

Students are advised to take most of the core/foundational courses and all concentration-specific courses during the third year of the program. Any remaining foundational M.P.H. courses are taken during P3 and P4 years. Students will be able to maintain their Pharmacy Intern License while they are in the M.P.H. program.

Plan of Study

Students must choose one of the two tracks in the M.P.H. program: Global and Community Health or Research, Evaluation and Policy in year 1 of the Program.

Global and Community Health Track

Code	Title	Credit Hours
P-1 Year (Year 1 of Program)		
Required P-1 Pharmacy Courses		36
P-2 Year (Year 2 of Program)		
Required P-2 Pharmacy Courses		37
M.P.H. Year (Year 3 of Program)		
<i>Fall (12 credits)</i>		
PH 601	Intro Public Health	1
PH 655	Intro Health Policy	2
PH 611	Epidemiology	3
PH 621	Statistical Methods I	3
PH 671	Community Health	3
Cont. Longitudinal IPPE		
<i>Spring (12 credits)</i>		
PH 641	Social Behavioral Aspects PH	2
PH 631	Environmental Health	2
PH 651	Public Health Services	2
PH 693	Law and Ethics	3
PH 662	Control of Inf Disease	3
Cont. Longitudinal IPPE		
<i>Summer (8 credits)</i>		
PH 672	Global Health	3
PH 642	Health Communications	2
PH 661	Chronic Disease	3
P-3 Year (Year 4 of Program)		
Complete all P-3 pharmacy courses, including electives.		34
PH 694	Practicum (needs to be taken during spring)	3
P-4 Year (Year 5 of Program)		
Summer, Fall, Springs APPEs (APPE management elective required)		40

Pharmacy Capstone	4	
PH 696	Capstone (needs to be taken during spring)	3
Total Credit Hours		189

Research, Evaluation & Policy Track

Code	Title	Credit Hours
P-1 Year (Year 1 of Program)		
Required P-1 Pharmacy Courses		36
P-2 Year (Year 2 of Program)		
Required P-2 Pharmacy Courses		37
M.P.H. Year (Year 3 of Program)		
<i>Fall (12 credits)</i>		
PH 601	Intro Public Health	1
PH 655	Intro Health Policy	2
PH 611	Epidemiology	3
PH 621	Statistical Methods I	3
PH 615	Health Sys Research	3
Cont. Longitudinal IPPE		
<i>Spring (12 credits)</i>		
PH 641	Social Behavioral Aspects PH	2
PH 631	Environmental Health	2
PH 651	Public Health Services	2
PH 693	Law and Ethics	3
PH 656	Topics in Health Policy	3
Cont. Longitudinal IPPE		
<i>Summer (8 credits)</i>		
PH 616	Clinical Trials	3
PH 622	Statistical Methods II	2
PH 617	Meth Comp Study	3
P-3 Year (Year 4 of Program)		
Complete all P-3 pharmacy courses, including electives.		34
PH 694	Practicum (needs to be taken during spring)	3
P-4 Year (Year 5 of Program)		
Summer, Fall, Springs APPEs (APPE management elective required)		40
Pharmacy Capstone		4
PH 696	Capstone (needs to be taken during spring)	3
Total Credit Hours		189

Note: 6 credit hours of coursework from the Pharm.D. program can be used to replace the following M.P.H. courses:

- PH 602 Public Health Biology (2 SCH) - (Biolog Prereq + PHAR 542 Immunology and Microbiology (4 SCH). Dual Credit received: 2 SCH
- PH 692 Seminar (1 SCH) - (PHAR 731 Case Studies (3 SCH)) Dual Credit received: 1 SCH
- PH 686 Health Information Technology (3 SCH) - PHAR 622 Drug Info & Comm Skills (2 SCH) + PHAR 819 Long Care of Patient (1 SCH) Dual Credit received: 3 SCH

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.

Accreditation Status

Marshall University's Doctor of Pharmacy program has been granted full accreditation status by the Accreditation Council for Pharmacy Education (ACPE) Board of Directors. 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 (<http://acpe-accredit.org>)

Admission Requirements

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 (<http://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:

Code	Title	Credit Hours
	English Composition (2 semesters)	6
	Calculus (1 semester)	3
	Statistics (1 semester)	3
	Biology with Lab (2 semesters)	8
	Chemistry with Lab (2 semesters)	8
	Human Anatomy (1 semester)	4
	Human Physiology (1 semester)	4
	Microbiology (1 semester)	4
	Organic Chemistry with Lab (2 semesters)	8
	Physics with Lab (1 semester)	4
	Social Science elective (1 semester)	3

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.
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 both an application through PharmCAS and a supplemental application through the Marshall University School of Pharmacy (www.marshall.edu/pharmacy/application (<http://www.marshall.edu/pharmacy/application/>)).
6. Submitted all required application fees.
7. Successfully completed an on-site interview.

Program Requirements

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 152 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.

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.

Plan of Study

The curriculum is designed to be completed over 4 years or 9 semesters. A summary of the courses composing the curriculum is found below:

Course	Title	Credit Hours
First Year		
First Semester		
PHAR 511	Clinical Immunology	1
PHAR 522	Fund Med Chem	2
PHAR 541	Pharmacy Practice I	4
PHAR 531	Biopharmaceutics I	3
PHAR 542	Immunology and Microbiology	4
PHAR 546	Pharmaceutical Biochemistry	4
Credit Hours		18
Second Semester		
PHAR 521	Integrated Laboratory I	2
PHAR 532	Biopharmaceutics II	3
PHAR 543	Pharmacy Practice II	4
PHAR 544	Prin of Disease & Drug Action	4
PHAR 545	Therapeutics I (Appropriate use of over-the-counter products)	4
PHAR 811	Pharm Prac Exp I (IPPE 1)	1
PHAR 819	Long Care of Patient	1
Credit Hours		19
Second Year		
First Semester		
PHAR 611	Integrated Laboratory II	1
PHAR 621	Pharmacy Law & Ethics	2
PHAR 622	Drug Info & Comm Skills	2
PHAR 631	Pharmacometrics	3
PHAR 632	PPM Leadership	3
PHAR 661	Therapeutics II	6
PHAR 813	IPPE 3 Community 2	1
PHAR 819	Long Care of Patient	1
PHAR 821	IPPE Institutional	2
Credit Hours		21
Second Semester		
PHAR 612	Therapeutic Drug Dosing	1
PHAR 633	Patient Care Skills Lab	3
PHAR 634	PPM Finance	3
PHAR 635	Research Outcomes Patient Care	3
PHAR 671	Therapeutics III	7
PHAR 819	Long Care of Patient	1
Credit Hours		18
Third Year		
First Semester		
PHAR 711	Med Therapy Management	1
PHAR 722	PPM Patient Safety	2
PHAR 741	Ther-Endocrine	4
PHAR 751	Neuro & Psychiatric Dis	5
PHAR 801	Special Topics I	3

PHAR 816	Inpatient Clinical Skills	1
Select one of the following two courses:		1
PHAR 815	Phar Prac Exp 5 IPPE 5	
PHAR 817	Intro Phar Prac Exp IPPE 7	
PHAR 819	Long Care of Patient	1
Credit Hours		18

Second Semester

PHAR 712	Capstone Diabetes Care	1
PHAR 721	Therapeutics 7	2
PHAR 731	Case Studies	3
PHAR 761	HemeOnc Nutrition Hepa MS	6
PHAR 801	Special Topics I	3
Select one of the following two courses:		1
PHAR 815	Phar Prac Exp 5 IPPE 5	
PHAR 817	Intro Phar Prac Exp IPPE 7	
PHAR 819	Long Care of Patient	1
Credit Hours		17

Fourth Year

First Semester

SUMMER/FALL SPRING		
PHAR 881	APPE 1-General Medicine	5
PHAR 882	APPE 2-Amb Care/Prim Care	5
PHAR 883	APPE 3-Advanced Community	5
PHAR 884	APPE 4-Adv Institutional	5
PHAR 885	APPE 5-Geriatrics	5
PHAR 886	APPE 6-Diverse Populations	5
PHAR 887	APPE 7 & 8-Electives	5
PHAR 887	APPE 7 & 8-Electives	5
PHAR 891	Pharmacy Capstone	4
Credit Hours		44
Total Credit Hours		155

Note: PHAR courses may not always coincide with the university academic calendar.

Courses A-Z

A

- Accountancy (ACC) (p. 319)
- Adult & Continuing Education (ACE) (p. 320)
- Anatomy & Cell Biology (ACB) (p. 324)
- Anthropology (ANT) (p. 325)
- Art (ART) (p. 326)
- Arts & Society-Humanities (A&S) (p. 327)

B

- Biochemistry (BIC) (p. 328)
- Biological Science (BSC) (p. 328)
- Biomedical Research (BMR) (p. 331)
- Biomedical Science (BMS) (p. 331)

C

- Cardiovascular Services (CVS) (p. 332)
- Chemistry (CHM) (p. 332)
- Civil Engineering (CE) (p. 333)
- Classics (CL) (p. 335)
- Clinical Translational Science (CTS) (p. 335)
- Communication Disorders (CD) (p. 336)
- Communication Studies (CMM) (p. 338)
- Computer & Info Security (CYBR) (p. 340)
- Computer Science (CS) (p. 340)
- Counseling (COUN) (p. 342)
- Criminal Justice (CJ) (p. 347)
- Cultural Studies-Humanities (CULS) (p. 349)
- Curr & Inst Math Educa (CIME) (p. 350)
- Curr & Inst Reading Educa (CIRG) (p. 351)
- Curr & Inst Science Educa (CISE) (p. 353)
- Curr & Inst Second Lang (CISL) (p. 353)
- Curr Inst Educa Computing (CIEC) (p. 354)
- Curr Inst Special Ed (CISP) (p. 355)
- Curriculum & Instruction (CI) (p. 358)
- Cyber Forensics and Security (CFS) (p. 362)

D

- Dietetics (DTS) (p. 362)
- Doctor-Business Administration (DBA) (p. 363)

E

- Early Childhood Education (ECE) (p. 364)
- Economics (ECN) (p. 364)
- Educational Foundations (EDF) (p. 365)
- Electrical Engineering (EE) (p. 366)
- Emergency Medical Services (EMS) (p. 368)
- Engineering & Science (ENGR) (p. 368)
- Engineering Management (EM) (p. 369)
- English (ENG) (p. 370)
- Entrepreneurship (ENT) (p. 374)
- Environmental Engineering (ENVE) (p. 374)
- Environmental Science (ES) (p. 375)
- Exercise Science and Sport (ESS) (p. 376)

F

- Family Community Health (FCH) (p. 378)
- Finance (FIN) (p. 380)
- Forensic Science (FSC) (p. 381)
- French (FRN) (p. 383)

G

- Geography (GEO) (p. 384)
- Geology (GLY) (p. 385)

H

- Health Care Administration (HCA) (p. 386)
- Health Education (HE) (p. 388)
- Health Informatics (HIN) (p. 388)
- Health Professions (HP) (p. 388)
- Health Science (HS) (p. 389)
- Historical Studies-Humanities (HIST) (p. 391)
- History (HST) (p. 391)
- Human Resource Management (HRM) (p. 393)
- Humanities (HUMN) (p. 394)

I

- Information Systems (IS) (p. 395)
- Instruct Tech-Library Science (ITL) (p. 398)
- Integrated Sci & Technology (IST) (p. 399)
- Interdisciplinary Medicine (IDM) (p. 399)

J

- Journalism & Mass Comm. (JMC) (p. 400)

L

- Latin (LAT) (p. 402)
- Leadership Studies (LS) (p. 403)
- Legal Environment (LE) (p. 406)
- Literary Studies (LITS) (p. 406)

M

- Management (MGT) (p. 407)
- Management Information Systems (MIS) (p. 408)
- Marketing (MKT) (p. 409)
- Mathematics (MTH) (p. 409)
- Mechanical Engineering (ME) (p. 411)
- Medical Academic Computing (MAC) (p. 412)
- Medical Curriculum (MDC) (p. 412)
- Medicine (MED) (p. 413)
- Mgt Prac Nurse Anesthesia (MPNA) (p. 414)
- Microbiology (MCB) (p. 416)
- Mine Safety (MSF) (p. 417)
- Music (MUS) (p. 418)

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Abbreviations

Abbreviation	Description
PR	Prerequisite
CR	Corequisite
REC	Recommended
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)
S/U	Graded Satisfactory/Unsatisfactory

Accountancy (ACC)

ACC 510 Survey of Accounting 3 Credit hours

A survey of financial and managerial accounting principles and procedures that supports external financial reporting and management decision making for business entities.

Grade Mode: Normal Grading Mode

ACC 512 Govt NFP Accounting 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ACC 544 Consulting for CPAs 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ACC 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

ACC 581 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

ACC 582 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

ACC 612 Account Function Business 3 Credit hours

The meaning, uses, and limitations of the historical and projected quantitative data produced by the accounting process. Emphasis is given to the utilization of accounting information: (1) by 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.

Pre-req: ACC 510 or ACCT 501G.

Grade Mode: Normal Grading Mode

ACC 613 Profit Planning & Control 3 Credit hours

Determination, analysis, and reporting of data for planning and controlling operations. Includes flexible budgets, standard costs, and systems of determining historical costs.

Pre-req: ACC 510.

Grade Mode: Normal Grading Mode

ACC 614 Theory of Accounting 3 Credit hours

History and development of accounting principles; intensive study of theoretical problems related to determination of income and presentation of financial conditions.

Pre-req: ACC 510 or ACC 501G.

Grade Mode: Normal Grading Mode

ACC 615 Audit Theory & Practice 3 Credit hours

Legal and social responsibilities of the auditor. Verification of financial statements by independent public accountants and internal auditors.

Pre-req: ACC 510 or ACCT 501G.

Grade Mode: Normal Grading Mode

ACC 616 Adv Income Tax Procedure 3 Credit hours

A study of selected topics in the Internal Revenue code and Regulations with emphasis on tax accounting and research.

Pre-req: ACC 510 or ACCT 501G.

Grade Mode: Normal Grading Mode

ACC 617 Advanced Controllershship**3 Credit hours**

Functions of the modern corporate controller. Topics and problems demonstrating the integrative nature of the controller's role are investigative. The use of the computer is integrated into the course.

Pre-req: ACC 613.**Grade Mode:** Normal Grading Mode**ACC 618 Accounting Research****3 Credit hours**

Examination and evaluation of current theories, issues, and problems relating to accounting. Primary emphasis on accounting theory and research.

Pre-req: ACC 510.**Grade Mode:** Normal Grading Mode**ACC 620 Analytic Modeling Acct****3 Credit hours**

Students will learn how to build accounting analytic models and analyze accounting data to increase profitability, reduce costs, and improve operational costs.

Grade Mode: Normal Grading Mode**ACC 632 Auditing AIS****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ACC 640 Forensic ACC Civil Litigation****3 Credit hours**

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.

Pre-req: ACC 613.**Grade Mode:** Normal Grading Mode**ACC 648 Tax Research****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ACC 650 Special Topics****1-3 Credit hours****Pre-req:** ACC 510 or ACCT 501G.**Grade Mode:** Normal Grading Mode**ACC 651 Special Topics****1-3 Credit hours****Grade Mode:** Normal Grading Mode**ACC 660 Independent Study****1-4 Credit hours**

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. admissions or permission of GSM academic advisor)

Pre-req: ACC 510.**Grade Mode:** Normal Grading Mode**ACC 681 Thesis****1-6 Credit hours**

(Permission of the division head and full M.B.A. admission)

Pre-req: ACC 510 or ACCT 501G.**Grade Mode:** Normal Grading Mode**ACC 698 Ethics in Accounting****3 Credit hours**

This course examines ethical issues facing professional accountants. Professional codes of conduct and corporate governance mechanisms will be applied to manage ethical situations.

Grade Mode: Normal Grading Mode**ACC 699 Bus Policy & Strategy****3 Credit hours**

Study of administrative decision making under conditions of uncertainty. Policy construction are top administrative level with emphasis on strategy with consideration of major functions of the business organization.

Pre-req: ACC 510 or ACCT 501G.**Grade Mode:** Normal Grading Mode

Adult & Continuing Education (ACE)

ACE 503 Intro to Adult Learning Theory**3 Credit hours**

Designed to acquaint the student with the field of adult education and its underpinnings and the various adult learning theories and/or approaches.

Grade Mode: Normal Grading Mode**ACE 505 Inst Methods in Tech Training****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ACE 508 Teach Methods Career Tech Educ****3 Credit hours**

Correlating Lab instruction with classroom instruction; individual and group instruction sheets and materials; the four teaching steps in career and technical education; and physical factors relating to classroom and lab.

Grade Mode: Normal Grading Mode**ACE 510 Developing Selling Curriculum****3 Credit hours**

Conduct library research, review selling content, select content objectives, identify content appropriate for the target group, prepare teaching outlines, and design evaluation instruments.

Grade Mode: Normal Grading Mode**ACE 511 Intro to Career and Tech Educ****3 Credit hours**

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 teacher competence.

Grade Mode: Normal Grading Mode**ACE 512 Crs Constr Plan Career Tech Ed****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ACE 513 Org Manage Sch Shops & Labs****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ACE 520 Principles Cooperative Ed****3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ACE 521 Occupational Analysis	3 Credit hours	ACE 549 Occup Analysis Instruct Design	3 Credit hours
Assist the instructor in analyzing an occupation; goals and objectives to form a basis for curriculum; classifying and describing occupations; analysis procedures; course content, and technical skills and knowledge.		Analyzing an occupation to identify knowledge and skill; use of the analysis to develop problem solving objectives and instructional plans; emphasis on approach to facilitate student achievement of objectives.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ACE 522 Admin of Cooperative Programs	3 Credit hours	ACE 550 Interper Skills in Workplace	3 Credit hours
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.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ACE 524 Safety in Career Technical Ed	3 Credit hours	ACE 552 Hist & Phil of Career Tech Ed	3 Credit hours
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.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ACE 525 Computer Appl Bus & Mkt	3 Credit hours	ACE 559 Coord Career Tech Youth Activ	3 Credit hours
Study of computer applications and software for Business and Marketing Education.		Organize and develop a co-curricular student organization; defining the purpose of the organization; plan application and integration into the career and technical program; competencies in leadership and team building.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ACE 535 Methods of Exam Career Tech Ed	3 Credit hours	ACE 565 Career Exploration & Develop	3 Credit hours
Develop written and performance evaluation instruments: develop and use progress charts; determine appropriate grading procedures. Develop rating scales, objectives tests, classroom tests, manipulative tests, introduction to statistics.		Exploring principles and techniques for career planning and job search. An overview of strategies for gaining a competitive edge in the labor market and experiencing a successful career beginning.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ACE 536 Coord Coop Career Tech Ed	3 Credit hours	ACE 569 Bus & Occupation Teach Methods	3 Credit hours
Background of Coordination; methods and techniques for evaluating and selecting work stations, student selection, placement and follow-up; role of advisory committees; method of evaluating cooperative work experience.		Survey of materials and methods for developing competencies in teaching business education and/or occupational training programs.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ACE 540 Dev Merch/Sales Prom Curr	3 Credit hours	ACE 570 Practicum Adult & Tech Ed	1-4 Credit hours
Conduct library research, review merchandising and sales promotion content, objectives, identify content appropriate for the target group, prepare teaching outlines, and design evaluation instruments.		Individually designed field experience under supervision of the faculty; such experience related to the student's future professional role. (GRADING: CR/NC)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ACE 542 Prin Prevoc Exploration	3 Credit hours	ACE 580 Special Topics	1-4 Credit hours
Study of the prevocational exploration delivery system and develop instructional units which include goals, objectives, and criteria for evaluation of students.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ACE 581 Special Topics	1-4 Credit hours
ACE 547 Computer Appl Career Tech Ed	3 Credit hours	Grade Mode: Normal Grading Mode	
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.		ACE 582 Special Topics	1-4 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ACE 548 Appl Basic Skills Career Tech	3 Credit hours	ACE 583 Special Topics	1-4 Credit hours
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.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ACE 584 Special Topics	1-4 Credit hours
		Grade Mode: Normal Grading Mode	
		ACE 585 Independent Study	1-4 Credit hours
		Grade Mode: Normal Grading Mode	
		ACE 586 Independent Study	1-4 Credit hours
		Grade Mode: Normal Grading Mode	
		ACE 587 Independent Study	1-4 Credit hours
		Grade Mode: Normal Grading Mode	
		ACE 588 Independent Study	1-4 Credit hours
		Grade Mode: Normal Grading Mode	
		ACE 591 Workshop	1-4 Credit hours
		Grade Mode: Normal Grading Mode	

ACE 592 Workshop Grade Mode: Normal Grading Mode	1-4 Credit hours	ACE 616 Community Relations in ACE Study of community organizations and the relationship of adult and continuing education; consideration of models for analyzing employment opportunities and occupational training needs and the process in securing community commitment. Grade Mode: Normal Grading Mode	3 Credit hours
ACE 593 Workshop Grade Mode: Normal Grading Mode	1-4 Credit hours	ACE 618 Literature Adult Contin Educ A program of readings and reports on specific areas in adult education or particular problems within an area of adult and continuing education. Readings to be selected cooperatively with advisor. Grade Mode: Normal Grading Mode	3 Credit hours
ACE 594 Workshop Grade Mode: Normal Grading Mode	1-4 Credit hours	ACE 628 Adult Inst Envir & Pers Aspect The course examines both environmental and personal factors which may impact on the adult learning process and is designed to foster awareness, which will be translated into appropriate intervention strategies. Grade Mode: Normal Grading Mode	3 Credit hours
ACE 595 Hist Dev in Workforce Prep An overview of the historical evolution of technical education legislation; analysis of Technical Education Acts as they relate to state and local planning of technical education programs. Grade Mode: Normal Grading Mode	3 Credit hours	ACE 631 Survey Prac Computer Appl An introductory course for persons who want to become familiar with the application of computers in the business/industrial fields represented by adult and technical education. Grade Mode: Normal Grading Mode	3 Credit hours
ACE 600 Aspects of Train and Dev Overview of the training and development profession and theories that support the profession; emphasis on the variety of solutions used by HRD professionals to help improve individual and organizational performance. Grade Mode: Normal Grading Mode	3 Credit hours	ACE 635 Spec Pract Comp App Bus & Ind An advanced course for persons who want to further their knowledge of the application of computers in the business and industrial fields, which are represented by adult and continuing education. Grade Mode: Normal Grading Mode	3 Credit hours
ACE 601 Philosophy Workforce Prep Overview of the historical origins of technical education and their relationship to educational philosophies; foundations of areas of technical education; analysis of questions fundamental to a philosophy of technical education. Grade Mode: Normal Grading Mode	3 Credit hours	ACE 637 Indiv Computer Prog App Individually designed learning activities that involve the application of previously learned theories, processes, operations, techniques, or systems. The applications are studied, analyzed, and evaluated. (PR: ATE 631, Equivalent or appropriate experience, CR/NC Grading). Pre-req: ACE 631 or ATE 631. Grade Mode: Normal Grading Mode	3 Credit hours
ACE 603 Intro to Adult Ed & Learners Designing to acquaint the student with the field of adult and continuing education, its foundations and development in this country and future trends Grade Mode: Normal Grading Mode	3 Credit hours	ACE 643 Teaching EFL Abroad Designed to explore the educational history of teaching a foreign language in different countries. Grade Mode: Normal Grading Mode	3 Credit hours
ACE 605 Foundations Bus & Mkt Ed Application of philosophy and principles of business and marketing education to the objectives, curriculum, guidance, and teacher preparation, emphasizing the techniques for coordination of federally aided programs. Grade Mode: Normal Grading Mode	3 Credit hours	ACE 650 Career Educ Curriculum Dev Instructional unit is developed to assist children and youth to achieve academic, general, or technical education and also career education goals; includes goals, objectives, procedures, student activities, resources, and evaluation. Grade Mode: Normal Grading Mode	3 Credit hours
ACE 609 Develop Training Plans for B/I Analysis of factors in developing local plans for business and industry; emphasis on implications of federal guidelines; factors which impinge upon programs during implementation; developing evaluation procedures. Grade Mode: Normal Grading Mode	3 Credit hours	ACE 651 Developing Marketing Curr Conduct library research, review marketing content, select content objectives, identify content appropriate for the target group, prepare teaching outlines, and design evaluation instruments. Grade Mode: Normal Grading Mode	3 Credit hours
ACE 610 Current Issues Bus & Mkt Ed Individual and group analysis of current issues in business and marketing; identification of issues significant to the direction of sound business and marketing education programs. Grade Mode: Normal Grading Mode	3 Credit hours	ACE 652 Field Based Job Analysis Field study of job analysis, curriculum, course and program design. Grade Mode: Normal Grading Mode	3 Credit hours
ACE 614 ACE & Econ Dev Study of the sources of data on employment needs; relationship to planning techniques for conducting a community survey; organizing data for analysis and applying the findings to the planning process. Grade Mode: Normal Grading Mode	3 Credit hours	ACE 653 Develop Management Curr Conduct library research, review management content, select content objectives, identify content appropriate for the target group, prepare teaching outlines, and design evaluation instruments. Grade Mode: Normal Grading Mode	3 Credit hours
ACE 615 Student Career Organizations A study of various facets of existing state/national student organizations. Special emphasis is placed upon the organizations of student career organizations and parliamentary procedures. (PR: ACE 542 or equivalent) Grade Mode: Normal Grading Mode	3 Credit hours		

ACE 655 Developing Human Resources Cur 3 Credit hours

Conduct library research, review personnel content, select content objectives, identify content appropriate for the target group, prepare teaching outlines, and design evaluation instruments.

Grade Mode: Normal Grading Mode

ACE 656 Instr Planning for Adults 3 Credit hours

An examination and application of the process involved in the development, operation, and evaluation of adult programs in the community, business, and industry.

Grade Mode: Normal Grading Mode

ACE 659 EFL Methods 3 Credit hours

Designed to provide students with the latest methodologies associated with teaching English as a Foreign Language (EFL) to the adult learner. (PR: ACE 643)

Grade Mode: Normal Grading Mode

ACE 661 Practicum ACE 3 Credit hours

Individually designed to provide field experience under the supervision of the faculty, such experience to be related to the student's project role in adult and continuing education.

Grade Mode: Normal Grading Mode

ACE 662 App Field Exp Prevoc Explor 3 Credit hours

Students are assisted in making revisions in instructional units, organizing an advisory committee, and organizing Career Exploration Club as an integral part of the classroom function. (PR ACE 542)

Grade Mode: Normal Grading Mode

ACE 663 Practicum EFL 3 Credit hours

Designed to engage the student in hands-on teaching in a classroom setting. (PR ACE 659)

Grade Mode: Normal Grading Mode

ACE 664 Technical Ed Practicum 3 Credit hours

Individually designed to provide field experience under the supervision of the faculty, such experience to be related to the student's profession. (CR/NC Grading) (PR: At least 8 of the following courses and permission of instructor: ACE 601, 609, 614, 646, 648, EDA 500, 600, 640, 740)

Grade Mode: Normal Grading Mode

ACE 667 Co-Op Ed Work Force Exp 1-10 Credit hours

Alternating or parallel periods of study and paid employment for experiential learning related to student's academic and/or professional goals (Min 50 hours paid work experience per credit hour) (CR/NC GRADING)

Grade Mode: Normal Grading Mode

ACE 668 Internship Field Based Bus/Ind 3 Credit hours

Internship in the technical content areas of marketing, merchandising, management, or technology. Evaluation of methods, and procedures in marketing, merchandising, management, or technology. (PR: ACE 609, 628, 652, and 656)

Grade Mode: Normal Grading Mode

ACE 671 Eval of Adult and Tech Educ 3 Credit hours

An examination of the design and evaluation processes used in adult learning areas with emphasis on the T&D and technical fields as well as the general field.

Grade Mode: Normal Grading Mode

ACE 673 Assessment in Adult Tech 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ACE 675 Literature & Research ACE 3 Credit hours

Program of readings and reports on specific areas of adult/continuing education or particular problems within an area of adult and continuing education; reading selected cooperatively with advisor.

Grade Mode: Normal Grading Mode

ACE 677 Research Method & Design ACE 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ACE 679 Problem Report 1-6 Credit hours

Grade Mode: Normal Grading Mode

ACE 680 International Workforce Dev 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ACE 681 Thesis 1-6 Credit hours

Grade Mode: Normal Grading Mode

ACE 685 ACE Capstone 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ACE 689 Grant Proposal Writing 3 Credit hours

This course involves the development of a grant proposal and includes the steps required to produce a final document.

Grade Mode: Normal Grading Mode

ACE 690 Seminar 1-4 Credit hours

Grade Mode: Normal Grading Mode

ACE 691 Seminar 1-4 Credit hours

Grade Mode: Normal Grading Mode

ACE 692 Seminar 1-4 Credit hours

Grade Mode: Normal Grading Mode

ACE 702 Analysis Lit Comm Tech Coll 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ACE 703 Interpret Utl App Res Tch 3 Credit hours

Students will learn how to choose the appropriate statistics, interpret the outputs, and develop skills in writing about the meaning of the results.

Grade Mode: Normal Grading Mode

ACE 707 Professional Seminar I 1 Credit hour

Selected topics in programs and institutional assessment related to community and technical colleges.

Grade Mode: Normal Grading Mode

ACE 708 Professional Seminar II**1 Credit hour**

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.

Grade Mode: Normal Grading Mode**ACE 709 Professional Seminar III****1 Credit hour**

Provides students an opportunity to synthesize prior course experience and to prepare and present a draft thesis prospectus.

Grade Mode: Normal Grading Mode**ACE 712 Class Asses Comm Tech Coll****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ACE 718 Ed and Employ Pre Diverse Pop****3 Credit hours**

The needs of diverse/special needs population, including youth and adults with disabilities, disadvantaged, limited English proficient, displaced workers, minorities, incarcerated, and single teen parents. Specific attention to federal legislation.

Grade Mode: Normal Grading Mode**ACE 723 Persp Strategies Teach Work Ed****3 Credit hours**

Teaching/learning process and consideration of teaching methods employed to encourage, guide, and evaluate community and technical college students' learning.

Grade Mode: Normal Grading Mode**ACE 726 Fund Plan Admin Issues CTC****3 Credit hours**

Governance and administration of the contemporary community and technical college in the United States with a focus on planning, funding, and selected administrative issues.

Grade Mode: Normal Grading Mode**ACE 781 Thesis****6 Credit hours**

Individual research in a selected field of community and technical college teaching under the direction of a graduate faculty member of the department.

Grade Mode: Normal Grading Mode

Anatomy & Cell Biology (ACB)

ACB 604 Forensic Science I**3 Credit hours****Grade Mode:** Normal Grading Mode**ACB 620 Gross Anatomy/Embryology****8 Credit hours**

A course centered about dissection of the human body in the laboratory. Lectures are designed to guide the student and stimulate him toward independent effort.

Grade Mode: Normal Grading Mode**ACB 621 Gross Anat/Embryology I****2 Credit hours**

Morphology of the upper and lower limbs with dissection.

Grade Mode: Normal Grading Mode**ACB 622 Gross Anat/Embryology II****6 Credit hours**

Morphology of the head and neck, thorax, abdomen, pelvis with dissection.

Grade Mode: Normal Grading Mode**ACB 624 Micro Anat & Ultrastruct****4 Credit hours**

An in-depth study of the microanatomy and fine structure of human tissues, specifically designed for graduate students through special laboratories, lectures, and seminars.

Grade Mode: Normal Grading Mode**ACB 626 Adv Histological Tech****4 Credit hours**

Advanced theories and techniques of tissue preparation, staining, and histochemistry.

Grade Mode: Normal Grading Mode**ACB 628 Anatomy of Nervous System****4 Credit hours**

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.

Grade Mode: Normal Grading Mode**ACB 629 Microscopic Anat Part I****1 Credit hour**

The basic tissue types of the human body will be examined at the light and electron microscopic level.

Grade Mode: Normal Grading Mode**ACB 630 Microscopic Anat Part II****3 Credit hours**

The organ systems of the human body will be examined at the light and electron microscopic level.

Grade Mode: Normal Grading Mode**ACB 632 Prin Mammalian Develop****3 Credit hours**

A lecture 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.

Grade Mode: Normal Grading Mode**ACB 633 Neuroanatomy I****2 Credit hours**

To study the essential organization of the cerebrum and spinal cord, blood supply, the spinal ascending and descending pathways, and clinically related disorders.

Pre-req: BMS 600.**Grade Mode:** Normal Grading Mode**ACB 634 Neuroanatomy II****2 Credit hours**

To study the functional organization and neurological disorders associated with the brainstem, thalamus, hypothalamus, cerebellum, basal ganglia, limbic system, and cerebral cortex.

Pre-req: ACB 633.**Grade Mode:** Normal Grading Mode**ACB 639 Neuroanatomy Res Tech****3 Credit hours**

Class participants will be exposed to state-of-the-art neuroanatomy research techniques while in the laboratories of neuroanatomy faculty.

Grade Mode: Credit/No Credit Grade Only**ACB 640 Current Topics Cell Biol****1-3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ACB 641 Electron Microscopy****3 Credit hours**

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)

Grade Mode: Normal Grading Mode

ACB 643 Ind Research Electron Micro 3 Credit hours

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

Grade Mode: Normal Grading Mode

ACB 650 Research Cell Processes 1-4 Credit hours

Provides the student with an introduction to research in cellular biology and neurobiology. The educational program is arranged in consultation with an individual faculty member. (PR: BMS 600 or equivalent).

Grade Mode: Normal Grading Mode

ACB 655 Digital Video Imaging 3 Credit hours

An in-depth study of the theory and practice of fluorescence and confocal microscopy, intracellular ion measurements and immunocytochemistry. Working with instructor (two-four hours per week of lectures, laboratories, and individual discussions), the student will become familiar with aspects of research conducted in the laboratory and select an individualized research project.

Grade Mode: Normal Grading Mode

ACB 660 Current Topics Neurobiology 1-3 Credit hours

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. Prerequisite: Consent of instructor.

Grade Mode: Normal Grading Mode

ACB 675 Special Topics 1-4 Credit hours

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode

ACB 676 Special Topics 1-4 Credit hours

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode

ACB 677 Special Topics 1-4 Credit hours

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode

ACB 720 Gross Anat & Embryology 8 Credit hours

Grade Mode: Normal Grading Mode

ACB 724 Micro Anat & Ultrastruct 4 Credit hours

Grade Mode: Normal Grading Mode

ACB 725 Structural Basis Med Prac 1-18 Credit hours

This course will consist primarily of laboratory dissection following initial orientation lectures. This will provide experience in human dissection that is currently not available in the prosection-based Gross Anatomy and Embryology course.

Grade Mode: Pass/Fail Grading Mode

ACB 728 Neuroanatomy 4 Credit hours

Grade Mode: Normal Grading Mode

ACB 780 Elective Special Projects 1 Credit hour

Grade Mode: Normal Grading Mode

ACB 785 Independent Study 1-15 Credit hours

Grade Mode: Credit/No Credit Grade Only

ACB 801 Clinical Microanatomy 1-18 Credit hours

Elective for fourth-year medical students to review medical histology slides of normal tissues.

Grade Mode: Normal Grading Mode

ACB 810 Current Topics Cell Bio 1-18 Credit hours

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 the faculty member.

Grade Mode: Normal Grading Mode

ACB 813 Surgical Anatomy 1-18 Credit hours

Grade Mode: Pass/Fail Grading Mode

ACB 820 Res Cellular Processes 1-18 Credit hours

Provides the student with an introduction to research in cellular biology and neurosciences. The educational program is arranged in consultation with an individual faculty member.

Grade Mode: Normal Grading Mode

Anthropology (ANT)

ANT 511 Deconstructing Appalachia 3 Credit hours

Exploration of the historical and cultural significance of Appalachia in the American experience and imagination.

Grade Mode: Normal Grading Mode

ANT 512 Appalachian Field Exp I 3 Credit hours

Supervised fieldwork in an Appalachian community studying the social and cultural characteristics of the area.

Pre-req: ANT 511.

Grade Mode: Normal Grading Mode

ANT 528 Arch Theory and Analysis 3 Credit hours

An introduction to archaeological theory and its application to the material record of cultures past and present.

Grade Mode: Normal Grading Mode

ANT 540 African Cultures 3 Credit hours

Comparative analysis of the ethnic groups of Africa using archaeological and ethnographic data.

Grade Mode: Normal Grading Mode

ANT 564 Design Planning & Health 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ANT 565 Disaster, Culture & Health 3 Credit hours

Study of contemporary environmental and social problems emphasizing health impacts of natural and technological disasters on communities around the world.

Grade Mode: Normal Grading Mode

ANT 566 Culture and Environment 3 Credit hours

This course will examine the symbolic and structural dimensions of struggles over defining, organizing, and controlling the natural environment from a biocultural perspective.

Grade Mode: Normal Grading Mode

ANT 567 Culture through Ethnography 3 Credit hours

In depth exploration and comparison of diverse cultural groups through reading and discussing ethnographic texts.

Grade Mode: Normal Grading Mode

ANT 568 National Identity 3 Credit hours

Exploration of the cultural, political and economic processes that contribute to the creation and maintenance of the modern nation state as an imagined community.

Grade Mode: Normal Grading Mode

ANT 572 Language Gender Body**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ANT 580 Special Topics****1-4 Credit hours**

Study of topics of interest not covered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**ANT 581 Special Topics****1-4 Credit hours**

Study of topics of interest not covered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**ANT 582 Special Topics****1-4 Credit hours**

Study of topics of interest not covered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**ANT 583 Special Topics****1-4 Credit hours**

Study of topics of interest not covered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**ANT 585 Independent Study****1-4 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**ANT 586 Independent Study****1-4 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**ANT 587 Independent Study****1-4 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**ANT 588 Independent Study****1-4 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**ANT 591 Theory in Ethnology****3 Credit hours**

Introduction to major theoretical traditions of cultural anthropology with emphasis on the connection between fieldwork and development of theory.

Grade Mode: Normal Grading Mode**ANT 600 Ethnographic Research****3 Credit hours**

An advanced project-based introduction to ethnographic research design and practice.

Grade Mode: Normal Grading Mode**ANT 609 Professional Development****3 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**ANT 685 Independent Study****1-4 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**ANT 686 Independent Study****1-4 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**ANT 687 Independent Study****1-4 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode**ANT 688 Independent Study****1-4 Credit hours**

Individual study of topics not offered in regularly scheduled classes.

Grade Mode: Normal Grading Mode

Art (ART)

ART 504 Iconography of Mary**3 Credit hours**

Traces the sources and evolution of Catholic doctrine and images of the Virgin Mary.

Grade Mode: Normal Grading Mode**ART 508 Art & Arch of Ancient Egypt****3 Credit hours**

History of the visual arts and architecture in ancient Mesopotamia, Egypt, Greece and Rome.

Pre-req: ART 501.**Grade Mode:** Normal Grading Mode**ART 509 19th Century Art****3 Credit hours**

A survey of the development of architecture, painting, and sculpture in the western world during the last century.

Pre-req: ART 502.**Grade Mode:** Normal Grading Mode**ART 511 Art of Ancient Rome****3 Credit hours**

Explores the art and architecture of ancient Rome in light of social and religious influences.

Grade Mode: Normal Grading Mode**ART 514 Art & Architec Italian Ren****3 Credit hours**

The course discusses the art of the Renaissance in Italy and Northern Europe within the context of social, political, theological and philosophical developments.

Grade Mode: Normal Grading Mode**ART 515 Northern Renaissance Art****3 Credit hours**

Explores the art of Northern Europe during the Renaissance in light of social and religious influences.

Grade Mode: Normal Grading Mode**ART 516 Baroque Art****3 Credit hours**

Analyzes Baroque art and the social milieu that influenced, commissioned, financed, and produced it.

Grade Mode: Normal Grading Mode**ART 519 Spinning Dyeing Tapestry****3 Credit hours**

Basic procedures in hand spinning, dyeing and tapestry weaving.

Grade Mode: Normal Grading Mode**ART 554 Designing for Multimedia****3 Credit hours**

Current topics and techniques in multimedia design. Topics include animation, incorporating digital video and sound, interaction design, information design, Web-site-design and advanced image processing.

Grade Mode: Normal Grading Mode**ART 560 Hist & Phil of Art Ed****3 Credit hours**

A survey of the evolution of art education and philosophy, and a study of problems related to art education on the elementary and high school level.

Grade Mode: Normal Grading Mode**ART 564 History of Modern Design****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ART 571 Practicum****3 Credit hours**

To be used for learning activities that involve the application of previously learned processes, theories, systems, or techniques.

Grade Mode: Normal Grading Mode

ART 572 Practicum**3 Credit hours**

To be used for learning activities that involve the application of previously learned processes, theories, systems or techniques.

Grade Mode: Normal Grading Mode

ART 573 Practicum**3 Credit hours**

To be used for learning activities that involve the application of previously learned processes, theories, systems or techniques.

Grade Mode: Normal Grading Mode

ART 580 Special Topics**1-4 Credit hours**

To be used for experimental courses. By permission only.

Grade Mode: Normal Grading Mode

ART 581 Special Topics**1-4 Credit hours**

To be used for experimental courses. By permission only.

Grade Mode: Normal Grading Mode

ART 582 Special Topics**1-4 Credit hours**

To be used for experimental courses. By permission only.

Grade Mode: Normal Grading Mode

ART 583 Special Topics**1-4 Credit hours**

To be used for experimental courses. By permission only.

Grade Mode: Normal Grading Mode

ART 585 Independent Study**1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode

ART 586 Independent Study**1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode

ART 587 Independent Study**1-4 Credit hours**

To be reserved for tutorials, directed and independent research and readings, problem reports, and other activities designed to fit the needs of individual students with the major.

Grade Mode: Normal Grading Mode

ART 588 Independent Study**1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode

ART 601 Adv Prob Art Ed K-12**3 Credit hours**

For graduate students with limited experience in the arts and crafts wishing to familiarize themselves with methods and materials used in art education.

Grade Mode: Normal Grading Mode

ART 650 Advanced Studio Sequence**3 Credit hours**

The student will select special studies from art education, art history, drawing, painting, sculpture, ceramics, graphics, and other related approved projects.

Grade Mode: Normal Grading Mode

ART 651 Advanced Studio Sequence**3 Credit hours**

The student will select special studies from art education, art history, drawing, painting, sculpture, ceramics, graphics, and other related approved projects.

Grade Mode: Normal Grading Mode

ART 652 Advanced Studio Sequence**3 Credit hours**

The student will select special studies from art education, art history, drawing, painting, sculpture, ceramics, graphics, and other related approved projects.

Grade Mode: Normal Grading Mode

ART 653 Advanced Studio Sequence**3 Credit hours**

The student will select special studies from art education, art history, drawing, painting, sculpture, ceramics, graphics, and other related approved projects.

Grade Mode: Normal Grading Mode

ART 654 Advanced Studio Sequence**3 Credit hours**

The student will select special studies from art education, art history, drawing, painting, sculpture, ceramics, graphics, and other related approved projects.

Grade Mode: Normal Grading Mode

ART 655 Advanced Studio Sequence**3 Credit hours**

The student will select special studies from art education, art history, drawing, painting, sculpture, ceramics, graphics, and other related approved projects.

Grade Mode: Normal Grading Mode

ART 656 Advanced Studio Sequence**3 Credit hours**

The student will select special studies from art education, art history, drawing, painting, sculpture, ceramics, graphics, and other related approved projects.

Grade Mode: Normal Grading Mode

ART 670 Seminar**3 Credit hours**

Discussion and research in selected areas of art.

Grade Mode: Normal Grading Mode

ART 681 Thesis**1-6 Credit hours**

Grade Mode: Normal Grading Mode

Arts & Society-Humanities (A&S)

A&S 500 Prds/Mvmts Wstrn Art & Music**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

A&S 501 Stdys/Non-Western Art & Music**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

A&S 510 Comparative Arts**3 Credit hours**

Study of artistic movements and specific stylistic features in art, music and literature. May be repeated for a maximum of 6 hours.

Grade Mode: Normal Grading Mode

A&S 550 Sunrise Internship**3 Credit hours**

A specially designed project under the guidance of specialists at Sunrise Museums (requires special permission from the program director and Sunrise Museums).

Grade Mode: Normal Grading Mode

A&S 560 Film Art & Popular Media**3 Credit hours**

A consideration of films as the successors to earlier popular literature. Relevant aspects of media history and techniques will be examined.

Grade Mode: Normal Grading Mode

A&S 600 Selected Topics in Arts & Soc **1-6 Credit hours**
 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.

Grade Mode: Normal Grading Mode

A&S 620 Selected Topics/Decorative Art **1-6 Credit hours**
 Selected topics in history and practices of decorative arts (e.g., interior design, furniture styles, architecture)
Grade Mode: Normal Grading Mode

Biochemistry (BIC)

BIC 580 Special Topics **1-4 Credit hours**
Grade Mode: Normal Grading Mode

BIC 620 Human Biochemistry **6 Credit hours**
 A study of structure and metabolism of biological compounds with special reference to the human.
Grade Mode: Normal Grading Mode

BIC 621 Human BIC Discussion **1 Credit hour**
 Co-requisite weekly discussion group for Human Biochemistry. Selected topics from the lecture course will be covered in greater depth.
Co-req: BIC 620
Grade Mode: Credit/No Credit Grade Only

BIC 628 Mol Mech Growth & Diff **2 Credit hours**
 Advanced graduate course will acquaint students with the latest information on control of cell growth and differentiation at the molecular level. Lecture and student presentations. A short grant proposal is also required. (PR: BMS 600)
Pre-req: BMS 600.
Grade Mode: Normal Grading Mode

BIC 634 Lipid Biochemistry **2 Credit hours**
 Advanced study of lipid structure and metabolism.
Grade Mode: Normal Grading Mode

BIC 636 Enzymology and Proteins **3 Credit hours**
 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
Grade Mode: Normal Grading Mode

BIC 638 Nucleic Acid Protein Syn **3 Credit hours**
 An advanced course in molecular biology and molecular genetics emphasizing current research in these areas.
Pre-req: BIC 620.
Grade Mode: Normal Grading Mode

BIC 643 Molecular Signal Transduction **3 Credit hours**
 An advanced exploration of the newest information on cellular signalling pathways. Special emphasis will be place on current literature in following signal transduction from the plasma membrane to the nucleus. (PR: BMS 600 or equivalent)
Grade Mode: Normal Grading Mode

BIC 675 Special Topics **1-4 Credit hours**
 Present course material on special areas of research or topics which are not routinely covered in existing courses.
Grade Mode: Normal Grading Mode

BIC 676 Special Topics **1-4 Credit hours**
 Present course material on special areas of research or topics which are not routinely covered in existing courses.
Grade Mode: Normal Grading Mode

BIC 677 Special Topics **1-4 Credit hours**
 Present course material on special areas of research or topics which are not routinely covered in existing courses.
Grade Mode: Normal Grading Mode

BIC 720 Biochemistry **7 Credit hours**
Grade Mode: Normal Grading Mode

BIC 780 Elective Special Projects **1-18 Credit hours**
Grade Mode: Pass/Fail Grading Mode

BIC 785 Independent Study **1-15 Credit hours**
Grade Mode: Credit/No Credit Grade Only

BIC 820 Biochemistry Research **1-18 Credit hours**
Grade Mode: Pass/Fail Grading Mode

Biological Science (BSC)

BSC 501 Ichthyology **4 Credit hours**
 Anatomy, physiology, ecology, zoogeography, economic importance and classification of major groups and representative local species of fishes. 2 lec-2 lab and field.
Grade Mode: Normal Grading Mode

BSC 504 Cellular Physiology **4 Credit hours**
 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.
Grade Mode: Normal Grading Mode

BSC 505 Economic Botany **3 Credit hours**
 Plants used by man for food, ornamental purposes, building materials, textiles and other industrial purposes: economic importance of conservation. No laboratory.
Grade Mode: Normal Grading Mode

BSC 506 Herpetology **4 Credit hours**
 A survey of the reptiles and amphibians of the world with special emphasis placed on forms resident to West Virginia aspects of zoogeography, anatomy, taxonomy, and behavior. 2 lec-2 lab.
Grade Mode: Normal Grading Mode

BSC 508 Ornithology **4 Credit hours**
 An introduction to avian biology: Identification, distribution, migration and breeding activities of birds. 2 lec-4 lab.
Grade Mode: Normal Grading Mode

BSC 509 Mammalogy **4 Credit hours**
 A study of the structural features, evolution and classification of the mammals; other topics will include ecology, zoogeography, behavior, reproductive strategies, physiological adaptations to extreme environments and economic aspects. 2 lec-2 lab.
Grade Mode: Normal Grading Mode

BSC 510 Remote Sensing/GIS Appl **4 Credit hours**
 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.
Grade Mode: Normal Grading Mode

- BSC 511 Dgtl Image Proc/GIS Model** **4 Credit hours**
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.
Grade Mode: Normal Grading Mode
- BSC 513 Prin of Organic Evolution** **3 Credit hours**
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.
Grade Mode: Normal Grading Mode
- BSC 516 Plant Taxonomy** **4 Credit hours**
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.
Grade Mode: Normal Grading Mode
- BSC 517 Biostatistics** **3 Credit hours**
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. Permission (consistent with MTH 518 description)
Grade Mode: Normal Grading Mode
- BSC 520 Plant Physiology** **4 Credit hours**
Experimental study of plant life processes to include applicable biophysical and biochemical principles. 2 lec-4 lab.
Grade Mode: Normal Grading Mode
- BSC 521 Phycology** **4 Credit hours**
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.
Grade Mode: Normal Grading Mode
- BSC 522 Animal Physiology** **4 Credit hours**
Physiological principles operating in cells, organs, and systems of animals, with a focus on vertebrate, including human, function.
Grade Mode: Normal Grading Mode
- BSC 524 Animal Parasitology** **4 Credit hours**
Morphology, life histories, classification, and host relationships of common parasites. 2 lec-4 lab.
Grade Mode: Normal Grading Mode
- BSC 525 Systematics** **3 Credit hours**
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).
Grade Mode: Normal Grading Mode
- BSC 528 Neuroscience** **3 Credit hours**
The fundamentals of cellular and systems neuroscience, with application towards understanding current research and biomedical problems.
Grade Mode: Normal Grading Mode
- BSC 530 Plant Ecology** **4 Credit hours**
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.
Grade Mode: Normal Grading Mode
- BSC 531 Limnology** **4 Credit hours**
The study of inland waters; ecological factors affecting lake and stream productivity and various aquatic communities. 2 lec-4 lab.
Grade Mode: Normal Grading Mode
- BSC 538 Emerging Infectious Diseases** **3 Credit hours**
Introduces students to infectious diseases that are either newly emergent or have returned to prominence within the last decade.
Grade Mode: Normal Grading Mode
- BSC 543 Microbial Genetics** **3 Credit hours**
Microbial Genetics covers the essential functions of DNA replication and gene expression in prokaryotic cells. The course includes molecular genetics of bacteria and phages, bioinformatics and discussion of laboratory techniques.
Grade Mode: Normal Grading Mode
- BSC 545 Microbial Ecology** **3 Credit hours**
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.
Grade Mode: Normal Grading Mode
- BSC 550 Molecular Biology** **3 Credit hours**
Advanced principles in molecular function emphasizing current research using recombinant DNA methodology. (PR: BSC 322 or equivalent)
Grade Mode: Normal Grading Mode
- BSC 556 Genes and Development** **3 Credit hours**
An in depth study of the genetic mechanisms of complex organismal development including cell specification, induction and morphogenesis.
Grade Mode: Normal Grading Mode
- BSC 560 Conservation Biology** **3 Credit hours**
This course focuses on the North American model of wildlife conservation (and its history), principles of biodiversity, threats to habitats and species of concern, and conservation policy. Primarily for teachers in the biological sciences, general and applied sciences. Includes fieldwork, seminars, and demonstrations related to conservation. 2 lec-4 lab.
Grade Mode: Normal Grading Mode
- BSC 580 Special Topics** **1-4 Credit hours**
(PR: Permission)
Grade Mode: Normal Grading Mode
- BSC 581 Special Topics** **1-4 Credit hours**
(PR: Permission)
Grade Mode: Normal Grading Mode
- BSC 582 Special Topics** **1-4 Credit hours**
(PR: Permission)
Grade Mode: Normal Grading Mode
- BSC 583 Special Topics** **1-4 Credit hours**
(PR: Permission)
Grade Mode: Normal Grading Mode
- BSC 585 Independent Study** **1-4 Credit hours**
(PR: Permission)
Grade Mode: Credit/No Credit Grade Only
- BSC 586 Independent Study** **1-4 Credit hours**
(PR: Permission)
Grade Mode: Credit/No Credit Grade Only

BSC 587 Independent Study (PR: Permission) Grade Mode: Credit/No Credit Grade Only	1-4 Credit hours	BSC 650 Special Problems By permission of adviser. Grade Mode: Credit/No Credit Grade Only	1-3 Credit hours
BSC 588 Independent Study (PR: Permission) Grade Mode: Credit/No Credit Grade Only	1-4 Credit hours	BSC 651 Special Problems By permission of adviser. Grade Mode: Credit/No Credit Grade Only	1-3 Credit hours
BSC 601 Vertebrate Embryology Vertebrate development based on frog, chick and pig embryos. 2 lec-4 lab. Grade Mode: Normal Grading Mode	4 Credit hours	BSC 652 Special Problems By permission of adviser. Grade Mode: Credit/No Credit Grade Only	1-3 Credit hours
BSC 608 Plant Growth & Developmnt Comprehensive advanced study of correlative growth in plants with emphasis on germination, dormancy, growth substances and physiological phenomena associated with phases of development. Grade Mode: Normal Grading Mode	4 Credit hours	BSC 660 Seminar I 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. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	2 Credit hours
BSC 610 Adv Vert Morphology 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. Grade Mode: Normal Grading Mode	3 Credit hours	BSC 661 Topics in Biological Sciences In depth group discussion of current biological issues. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	2 Credit hours
BSC 620 Taxonomy Vascular Plants Field studies in the taxonomy of higher plants. (Limited to 4 hours credit per student). Co-req: BSC 622 Grade Mode: Normal Grading Mode	1-2 Credit hours	BSC 662 Seminar II Oral presentation of individual topics. Pre-req: BSC 660. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1 Credit hour
BSC 621 Taxonomy Vascular Plants Field studies in the taxonomy of higher plants. (Limited to 4 hours credit per student). Grade Mode: Normal Grading Mode	1-2 Credit hours	BSC 679 Problem Report Preparation and completion of a written report from experimental or field research in biological sciences. (PR: permission) Grade Mode: Normal Grading Mode	1-4 Credit hours
BSC 622 Taxonomy Vascular Plants Field studies in the taxonomy of higher plants. (Limited to 4 hours credit per student). Co-req: BSC 620 Grade Mode: Normal Grading Mode	1-2 Credit hours	BSC 680 Special Topics Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1-4 Credit hours
BSC 625 Advanced Physiology Lecture, current literature and introduction to research in physiological systems. 3 lec-3 lab. Grade Mode: Normal Grading Mode	4 Credit hours	BSC 681 Thesis By permission of adviser. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1-6 Credit hours
BSC 631 Animal Ecology A study of population and behavior ecology; community dynamics and field techniques. 2 lec-4 lab. Grade Mode: Normal Grading Mode	4 Credit hours	BSC 716 Adv Cell Phys Nurse Anesthesia Study of structure amd function of human cells, including protein synthesis, metabolism and reproduction. Study of genetic disorders and anesthesia. Study of anti-cancer drugs. Analyze types and rules of various cell membrane receptors on anesthesia process. Grade Mode: Normal Grading Mode	2 Credit hours
BSC 640 Cell Bio & Biotechnology 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 commercialization. Grade Mode: Normal Grading Mode	3 Credit hours	BSC 717 Adv Ana Phy Path Nurse 1 Anatomy, Physiology, pathophysiology and anesthetic considerations related to the respiratory and renal systems. Grade Mode: Normal Grading Mode	3 Credit hours
BSC 644 Quantitative Ecology An introduction to statistical analyses using presence absence, mark-recapture, and count data to estimate population parameters, such as occupancy and survival. Grade Mode: Normal Grading Mode	3 Credit hours	BSC 718 Adv Ana Phy Path Nurse 2 Anatomy, physiology, pathophysiology and anesthetic considerations related to the cardiovascular system. Grade Mode: Normal Grading Mode	3 Credit hours
BSC 649 Wetland Ecology	3 Credit hours	BSC 719 Adv Ana Phy Path Nurse 3 Anatomy, physiology, pathophysiology and anesthetic considerations related to the nervous and endocrine systems. Grade Mode: Normal Grading Mode	3 Credit hours

Biomedical Research (BMR)

BMR 601 Intro DNA, RNA & Proteins 3 Credit hours

A molecular and cell biological study of the structure and function of nucleic acids and proteins.

Grade Mode: Normal Grading Mode

BMR 602 Intro Cells and Metabolism 3 Credit hours

A molecular and cell biological study of the structure of cells and of cellular metabolism.

Grade Mode: Normal Grading Mode

BMR 603 Regulation Cell Function 2 Credit hours

An advanced molecular and cell biological study of cell metabolism and the regulation of cell function.

Grade Mode: Normal Grading Mode

BMR 604 Cell Basis of Disease 1 Credit hour

A molecular and cell biological study of the basis of diseases prevalent in Appalachia

Grade Mode: Normal Grading Mode

BMR 617 BMR Statistics Technique 3 Credit hours

An application-oriented course in statistical concepts and techniques aimed at prospective researchers in the biomedical sciences.

Grade Mode: Normal Grading Mode

BMR 628 Neuroscience I 3 Credit hours

To study and understand the structure and function of the nervous system and disorders of neuronal function.

Pre-req: BMR 600.

Grade Mode: Normal Grading Mode

BMR 629 Neuroscience II 3 Credit hours

To study and understand the structure and function of the nervous system and disorders of neuronal function.

Pre-req: BMR 628.

Grade Mode: Normal Grading Mode

BMR 631 Neurosci/DevBio Lit Review 1 Credit hour

Published articles in the neuroscience literature will be presented by all class members. Each presentation will include background introduction methods, results, and discussion of the neuroscience research.

Grade Mode: Credit/No Credit Grade Only

BMR 641 Molecular Development 3 Credit hours

An in-depth discussion of current literature in developmental biology with emphasis on early embryo development, morphogenesis, lineage determination and regulation of developmental process.

Pre-req: BIC 628.

Grade Mode: Normal Grading Mode

BMR 644 Research Conduct 1 Credit hour

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.

Grade Mode: Credit/No Credit Grade Only

BMR 651 Cancer Biology 4 Credit hours

An advanced graduate course on the core principles of initiation, progression, treatment and prevention of cancer, based on current literature. (PR: BMR 601, 602, 603, 604, and permission of instructor).

Pre-req: BMR 601 and BMR 602 and BMR 603 and BMR 604.

Grade Mode: Normal Grading Mode

BMR 652 Cancer Biol Colloquium 1 Credit hour

This is a mentored journal club for graduate students covering selected areas of current interest in cancer biology research.

Grade Mode: Credit/No Credit Grade Only

BMR 660 Communication Bio Sci I 1 Credit hour

Biomedical graduate students are trained to plan, prepare and deliver effective scientific presentations.

Grade Mode: Credit/No Credit Grade Only

BMR 661 Communication Bio Sci II 1 Credit hour

Biomedical graduate students are trained to plan, prepare and deliver effective scientific presentations.

Grade Mode: Credit/No Credit Grade Only

BMR 664 ORDRC Colloquium 1 Credit hour

A seminar course where published articles in the field of obesity and obesity-related diseases are presented and discussed.

Grade Mode: Credit/No Credit Grade Only

BMR 665 CDRC Colloquium 1 Credit hour

A seminar-style series that will focus on recent advances in topics related to cardiovascular disease.

Grade Mode: Credit/No Credit Grade Only

BMR 674 Teaching Practicum 1 Credit hour

Students gain experience in teaching using a variety of methods in a supervised setting.

Grade Mode: Credit/No Credit Grade Only

BMR 676 CBR Journal Club 1 Credit hour

Mentored journal club preparation with monthly presentation in cellular and molecular biology research.

Grade Mode: Normal Grading Mode

BMR 679 Special Problems 1 Credit hour

Intensive study of a selected topic or problem. Emphasizes independent study.

Grade Mode: Credit/No Credit Grade Only

BMR 680 Seminar 1 Credit hour

Study and discussion of current topics related to the Biomedical Sciences.

Grade Mode: Credit/No Credit Grade Only

BMR 681 Thesis 1-6 Credit hours

Grade Mode: Credit/No Credit Grade Only

BMR 785 Intro to Research 1-6 Credit hours

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.

Grade Mode: Credit/No Credit Grade Only

BMR 882 Research 1-15 Credit hours

Grade Mode: Credit/No Credit Grade Only

Biomedical Science (BMS)

BMS 605 Micro Pharm Med Sciences 2 Credit hours

This is an integrated introduction to human disease and treatment based on core concepts in microbiology, immunology, and pharmacology, preparing students for detailed studies in subsequent courses.

Grade Mode: Normal Grading Mode

BMS 607 Hematology & Oncology**3 Credit hours**

This course will help students develop a foundational knowledge of the fundamental concepts of hematology, oncology and embryology so they can apply these concepts to body systems.

Grade Mode: Normal Grading Mode**BMS 609 Ortho and Neural Network****6 Credit hours**

This courses will enable students to integrate the foundational and clinical concepts important to understand the disease of the musculoskeletal and nervous systems.

Grade Mode: Normal Grading Mode**BMS 612 Gastroenterol & Nutrition****3 Credit hours**

This course will use the disciplines of physiology, microbiology, pathology, and pharmacology to help students master the fundamental concepts necessary to understand the normal and diseased gastrointestinal system.

Grade Mode: Normal Grading Mode**BMS 615 Cardio Pulmonary Renal****6 Credit hours**

This course will help students master the foundational concepts and clinical correlations for diseases of three of the five vital organs, i.e., cardiovascular, renal and the respiratory systems.

Grade Mode: Normal Grading Mode**BMS 618 Endocrine & Reproductive****3 Credit hours**

This course will help students master the foundational concepts and clinical correlations for diseases of the endocrine and reproductive systems.

Grade Mode: Normal Grading Mode**BMS 620 Multisystem Disorders****2 Credit hours**

This course will bring together the concepts taught in earlier courses to address disorders of multiple organ systems.

Grade Mode: Normal Grading Mode**BMS 628 Neuroscience I****3 Credit hours****Pre-req:** BMS 600.**Grade Mode:** Normal Grading Mode**BMS 631 Neurosci/DevBio Lit Review****1 Credit hour**

Published articles in the neuroscience literature will be presented by all class members. Each presentation will include background introduction methods, results, and discussion of the neuroscience research.

Grade Mode: Credit/No Credit Grade Only**BMS 634 Biostat Epidem Med Sci****2 Credit hours**

This course will give students a thorough understanding of basic epidemiology and study design and the biostatistics used the medical research.

Grade Mode: Normal Grading Mode**BMS 652 Cancer Biol Colloquium****1 Credit hour**

This is a mentored journal club for graduate students covering selected areas of current interest in cancer biology research.

Grade Mode: Credit/No Credit Grade Only**BMS 674 Teaching Practicum****1 Credit hour**

Students gain experience in teaching using a variety of methods in a supervised setting.

Grade Mode: Credit/No Credit Grade Only**BMS 679 Special Problems****1-3 Credit hours**

Intensive study of a selected topic or problem. Emphasizes independent study.

Grade Mode: Credit/No Credit Grade Only**BMS 681 Thesis****1-6 Credit hours****Grade Mode:** Credit/No Credit Grade Only**BMS 813 Research in Biomed Sciences****1-18 Credit hours**

The goal of this course is to provide Year 4 medical students with an opportunity to conduct research in biomedical sciences under the mentorship of a basic science faculty member and to learn methods of research.

Grade Mode: Pass/Fail Grading Mode

Cardiovascular Services (CVS)

CVS 800 Essentials of EKG**1-18 Credit hours****Grade Mode:** Pass/Fail Grading Mode**CVS 801 Clinical Cardiology****1-18 Credit hours****Grade Mode:** Pass/Fail Grading Mode

Chemistry (CHM)

CHM 511 Modern Instrument Methods**4 Credit hours**

This course investigates the theory and functional aspects of modern analytical instrumentation. Emphasis is placed on the components of instruments and the applicability of various techniques to specific analytical problems.

Pre-req: CHM 307 with a minimum grade of C or CHM 357 with a minimum grade of C.

Grade Mode: Normal Grading Mode**CHM 540 Thermodynamics****3 Credit hours**

An introduction to chemical thermodynamics and statistical mechanics. 3 lec.

Grade Mode: Normal Grading Mode**CHM 548 Adv Inorganic Chemistry I****4 Credit hours**

Study of physical and chemical properties and periodic relationships of inorganic materials. 3 lec, 2 lab (PR: CHM 356, CHM 307, or CHM 357)

Grade Mode: Normal Grading Mode**CHM 549 Adv Inorganic Chem II****3 Credit hours**

A detailed consideration of bonding, structure, reaction rates and equilibrium involving inorganic materials. 3 lec.

Grade Mode: Normal Grading Mode**CHM 551 Biological Mass Spectrometry****4 Credit hours**

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.

Grade Mode: Normal Grading Mode**CHM 565 Adv Organic Chemistry I****3 Credit hours**

Studies of the dynamics of organic reactions with emphasis on mechanisms and stereo chemistry. 3 lec.

Grade Mode: Normal Grading Mode**CHM 566 Adv Organic Chemistry II****3 Credit hours**

A continuation of Chemistry 565 with emphasis on synthetic methods. 3 lec.

Pre-req: CHM 565.**Grade Mode:** Normal Grading Mode

CHM 567 Intermediate Biochemistry	3 Credit hours	CHM 679 Problem Report	3 Credit hours
A survey course including introduction to basic biochemical concepts, bioenergetics, and information transfer.		Preparation of a comprehensive written report on a topic in Chemistry of current importance. Registration only by permission of Department.	
Pre-req: CHM 365 with a minimum grade of C or BSC 365 with a minimum grade of C.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CHM 682 Research	1-12 Credit hours
CHM 580 Special Topics	1-4 Credit hours	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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CHM 581 Special Topics	1-4 Credit hours	CHM 685 Independent Study	1-4 Credit hours
Grade Mode: Normal Grading Mode		Individual study of topics not offered in regularly scheduled classes.	
CHM 582 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CHM 686 Independent Study	1-4 Credit hours
CHM 583 Special Topics	1-4 Credit hours	Individual study of topics not offered in regularly scheduled classes.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CHM 585 Independent Study	1-4 Credit hours	CHM 687 Independent Study	1-4 Credit hours
Attributes: No Textbook Required		Individual study of topics not offered in regularly scheduled classes.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CHM 586 Independent Study	1-4 Credit hours	CHM 688 Independent Study	1-4 Credit hours
Grade Mode: Normal Grading Mode		Individual study of topics not offered in regularly scheduled classes.	
CHM 587 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CHM 723 Chemistry and Physics	3 Credit hours
CHM 588 Independent Study	1-4 Credit hours	Scientific principles and clinical 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. Analyze the molecular basis for molecular bonding, stereochemistry, protein confirmation, enzyme-substrate reactions.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CHM 604 Theories Analytical Chem	2 Credit hours		
Offered on demand.			
Pre-req: CHM 556.			
Grade Mode: Normal Grading Mode			
CHM 607 Theoretical Organic Chem	2 Credit hours		
The application of quantitative methods to problems in structure and dynamics. 2 lec.			
Pre-req: CHM 565.			
Grade Mode: Normal Grading Mode			
CHM 618 Kinetics	3 Credit hours		
An advanced study of reaction rates and mechanisms.			
Grade Mode: Normal Grading Mode			
CHM 628 Special Topics-Inorganic	1-3 Credit hours		
Offered on demand.			
Grade Mode: Normal Grading Mode			
CHM 629 Special Topics-Organic	1-3 Credit hours		
Offered on demand.			
Grade Mode: Normal Grading Mode			
CHM 630 Special Topics-Physical	1-3 Credit hours		
Offered on demand.			
Grade Mode: Normal Grading Mode			
CHM 631 Seminar	1 Credit hour		
Attributes: No Textbook Required			
Grade Mode: Normal Grading Mode			
CHM 632 Seminar	1 Credit hour		
Attributes: No Textbook Required			
Grade Mode: Normal Grading Mode			
CHM 678 Applied Micr in Research	4 Credit hours		
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).			
Grade Mode: Normal Grading Mode			
		Civil Engineering (CE)	
		CE 534 Geometric Highway Design	3 Credit hours
		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.	
		Grade Mode: Normal Grading Mode	
		CE 538 Pavement Design	3 Credit hours
		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.	
		Grade Mode: Normal Grading Mode	
		CE 602 Structural Mechanics	3 Credit hours
		Grade Mode: Normal Grading Mode	
		CE 604 Buckling of Struct Mem &	3 Credit hours
		Grade Mode: Normal Grading Mode	
		CE 605 Structural Vibrations	3 Credit hours
		Grade Mode: Normal Grading Mode	
		CE 611 Plastic Design	3 Credit hours
		Grade Mode: Normal Grading Mode	

CE 612 Advanced Steel Design	3 Credit hours	CE 635 Eval of Transportation Systems	3 Credit hours
Background of AISC 360, emphasizing building applications. Analysis method for second-order effects. Composite member design. Plate girders. Splices and bracing connections. Eccentric connections. Wind and seismic applications.		Concepts of transportation economic analysis, transportation costs and benefits, needs studies, finance and taxation, methods of evaluation of plans and projects, environmental impact assessment.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CE 614 Advanced Concrete Design	3 Credit hours	CE 636 Transportation Planning	3 Credit hours
Background of ACI 318, emphasizing building applications. Precast elements. Moment frames and shear walls. Continuous construction. Foundations and earth-retaining structures. Two-way slab design methods. Strut-and-tie analogies. Column supported slabs. Modern reinforced concrete design procedures; comparison of standard design codes; review of research on behavior of reinforced concrete structures; projection to future changes in design and construction practices.		Techniques used to plan urban transportation systems; data collection, trip generation, trip distribution, mode choice, traffic assignment, modeling and evaluation techniques; travel demand modeling.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CE 616 Prestressed Concrete Design	3 Credit hours	CE 637 Highway Safety Engineering	3 Credit hours
Behavior and design of prestressed concrete beams, columns, and beam-columns, emphasizing highway bridge applications. Methods of prestressing and loss estimation for precast and cast-in-place elements. Design of prestressed concrete structures; design for flexure, shear, and torsion; camber and deflections; continuity; connections; fire rating; and review of research and projection to changes in practices.		Traffic safety studies including: crash analysis, control and geometry improvements, hazard and countermeasures identification, before-and-after studies; data collection and computer tools for highway traffic and safety evaluation.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CE 618 Bridge Engineering	3 Credit hours	CE 639 Infrastructure Management	3 Credit hours
Analysis, design, and rating of bridges according to AASHTO specifications, emphasizing steel superstructures. Detailing of elements and systems based on strength, serviceability, constructability, and fatigue requirements. An overview of design of highway bridges and an introduction to maintenance of highway bridges; history of bridge engineering, types, design rules, loads, inspection, rating and preventive maintenance, aesthetics.		Application of decision analysis, mathematical programming, performance modeling and various heuristics to develop management plans for transportation infrastructure assets, primarily focusing on highway pavements and bridges.	
Pre-req: CE 616.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CE 650 Special Topics Civil Engr	3 Credit hours
CE 621 Advanced Soil Mechanics	3 Credit hours	Selected topics of special and current interest to civil engineers.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CE 622 Foundation Engineering 2	3 Credit hours	CE 651 Spec Topics Civil Engr	3 Credit hours
Grade Mode: Normal Grading Mode		Selected topics of special and current interest to civil engineers.	
CE 623 Advanced Soil Testing Theory	3 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CE 652 Spec Topics Civil Engr	3 Credit hours
CE 624 Design of Earth Structures	3 Credit hours	Selected topics of special and current interest to civil engineers.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CE 626 Groundwater Investigation	3 Credit hours	CE 680 Special Topics	3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CE 631 Geometric Design of Highways	3 Credit hours	CE 681 Water & Wastewater Engr Dsgn 1	3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CE 632 Highway Materials 1	3 Credit hours	CE 682 Water & Wastewater Engr Dsgn 2	3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CE 633 Highway Materials 2	3 Credit hours	CE 684 Biol & Physiochem Process	3 Credit hours
Grade Mode: Normal Grading Mode		CE 685 Hydrology	3 Credit hours
CE 634 Traffic Engineering	3 Credit hours	Grade Mode: Normal Grading Mode	
Design and application of signs, markings, and signals; timing of isolated and interconnected signals; speed regulation on one-way streets; capacity and analysis of highway facilities.		CE 686 Hyd/Sedi of Surface Mined Land	3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
		CE 687 Engineering Geology	3 Credit hours
		Grade Mode: Normal Grading Mode	
		CE 690 Special Topics in Civil Engr	1-6 Credit hours
		Grade Mode: Normal Grading Mode	
		CE 715 Adv Matrix Meth of Struct Anal	3 Credit hours
		Grade Mode: Normal Grading Mode	
		CE 790 Advanced Independent Study	1-6 Credit hours
		Grade Mode: Normal Grading Mode	
		CE 799 Research	1-12 Credit hours
		Grade Mode: Normal Grading Mode	

Classics (CL)

CL 536 Roman Civilization 3 Credit hours

Study of ancient Roman culture, emphasizing parallels with present-day issues.

Grade Mode: Normal Grading Mode

CL 580 Special Topics 1-4 Credit hours

PR: Consent of the instructor.

Grade Mode: Normal Grading Mode

CL 581 Special Topics 1-4 Credit hours

PR: Consent of the instructor.

Grade Mode: Normal Grading Mode

CL 582 Special Topics 1-4 Credit hours

PR: Consent of the instructor.

Grade Mode: Normal Grading Mode

CL 583 Special Topics 1-4 Credit hours

PR: Consent of the instructor.

Grade Mode: Normal Grading Mode

CL 585 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CL 586 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CL 587 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CL 588 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CL 599 Humanities Seminar 3 Credit hours

Grade Mode: Normal Grading Mode

CL 620 Theory: Ancient Literature 3 Credit hours

A close study of ancient and modern literary approaches to and theories about ancient literature with emphasis on genre and cultural contexts.

Grade Mode: Normal Grading Mode

Clinical Translational Science (CTS)

CTS 600 Epi Used in Med Research 3 Credit hours

Practical application of epidemiology and biostatistics used in medical research. The course will primarily focus on the design and analysis of translational studies.

Grade Mode: Normal Grading Mode

CTS 610 Study Design & Stats 3 Credit hours

Students will participate in an internship with faculty in providing consultation services in study design and statistics for medical research projects.

Grade Mode: Normal Grading Mode

CTS 611 Machine Learn Journal Club 1 Credit hour

Articles that describe either clinical or translational research along with machine learning techniques will be discussed. Students are expected to read, describe and present at these fourteen, 1 hour weekly sessions.

Grade Mode: Credit/No Credit Grade Only

CTS 612 Intro Clin Machine Learn 3 Credit hours

This course is designed for those who are interested in using machine learning with a focus on translational medical research, which is concerned with bringing bioscience research discoveries into patient care. This course explores the characteristic of its methods, its benefits and limitations. Explain and describe different learning algorithm machine learning journal club is optional.

Grade Mode: Normal Grading Mode

CTS 614 Online Survey Tools 3 Credit hours

This course will introduce Redcap, explore relational DB terms, I2B2, a research data warehouse counting tool, and data manipulation using MS SQL queries, functions, procedures along with C# using LINQ.

Grade Mode: Normal Grading Mode

CTS 615 Intro Clinical Databases 3 Credit hours

This course is an introduction to the concepts of database processing and management especially as it relates to clinical translational research. The focus is to bring bioscience research discoveries into patient care. Primary topics include discussions of major database types, history of databases and database issues, security, database principles, DBMS, RDBMS, SQL queries, Big Data, Marshall Clinical Data Warehouse.

Grade Mode: Normal Grading Mode

CTS 616 Intro Clinical Program C# 3 Credit hours

Course will present C#, a tool that can be used to manipulate data within the Clinical database using LINQ/other to connect the application to the database. The focus is on translational research, which is concerned with bringing bioscience research discoveries into patient care. This course is designed for those who are interested in medical research programming using console/web/smart-phone application technology.

Grade Mode: Normal Grading Mode

CTS 620 Basic Research Operations 3 Credit hours

This course will focus on the operation of clinical research trials, providing an overview of the critical aspects involved in all stages of clinical trials.

Grade Mode: Normal Grading Mode

CTS 625 Clinical Operations Lab 1-6 Credit hours

This course is a hands on experience in Clinical Research trial operation. The course provides an opportunity for students to work with clinical research professionals on FDA-directed clinical trials.

Pre-req: CTS 620.

Grade Mode: Credit/No Credit Grade Only

CTS 628 Intro to Java Cln Prog 4 Credit hours

The goal of this course is to expose clinical informatics students to programming in Java for common problem solving tasks. This course will focus on topics related to object-oriented programming with emphasis on object oriented design and style, classes, recursion, searching and sorting, simple data structures, and graphical user interfaces.

Grade Mode: Normal Grading Mode

CTS 630 Fundamentals of Team Science 2 Credit hours

This course offers practical guidance about how best to engage in team science to pursue complex science questions and work effectively with team members.

Grade Mode: Normal Grading Mode

CTS 632 Qualitative Research**1 Credit hour**

This course is designed as an introduction to qualitative research methods. It offers various approaches to designing and conducting qualitative research projects in health and health services research. Students will gain hands-on experience in various qualitative methods and analysis techniques while carrying out a research project related to their area of interest.

Grade Mode: Credit/No Credit Grade Only**CTS 635 Writing and Peer Review****1 Credit hour**

This course teaches students to become more effective writers of scientific publications.

Grade Mode: Normal Grading Mode**CTS 637 Introduction to Tableau****3 Credit hours**

Tableau is a business/clinical intelligence tool that makes it easier to process an ever-increasing stream of clinical information through data visualization, data discovery, visual analytics, dashboards, and visual storytelling. In this course, students will learn the fundamentals of creating interactive visual displays using an industry standard visualization tool using real medical data.

Grade Mode: Normal Grading Mode**CTS 640 Clinical Trials Journal Club****1 Credit hour**

This course will be presentations and discussions of the recent literature in the area of clinical trials. Fundamental principles and new discoveries will be emphasized.

Grade Mode: Credit/No Credit Grade Only**CTS 645 Navigating Health IT****3 Credit hours**

The quality of healthcare data is critical to clinical & translational research and medical practice. Getting the right data is difficult without a basic understanding of health information systems (HIS) and medical classification standards. This course provides an overview of these HIS and standards in the healthcare industry and enables gathering and use of HIS data effectively.

Grade Mode: Normal Grading Mode**CTS 650 Rural Clinical Experience****5 Credit hours**

This course will acquaint students with the issues of rural community health and wellness, which will allow them to participate in clinical studies in a rural environment.

Pre-req: CTS 620.**Grade Mode:** Credit/No Credit Grade Only**CTS 660 Appalachian Phenotype****3 Credit hours**

The course will describe the clinical presentations, epidemiology and molecular phenotype of disorders common in the Appalachian region.

Grade Mode: Normal Grading Mode

Communication Disorders (CD)

CD 515 Professional Literacies SLP**3 Credit hours**

Investigation into contemporary understandings of literacy using current communication and information technologies and resources.

Grade Mode: Normal Grading Mode**CD 524L DX Processes Laboratory****1-3 Credit hours**

Observation and practice in evaluating individuals with communication disorders.

Grade Mode: Normal Grading Mode**CD 526L TX Procedures I Lab****1 Credit hour**

Observation of individuals with communication disorders and introduction to analysis of the clinical process.

Grade Mode: Credit/No Credit Grade Only**CD 527 Therapeutic Procedures II****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CD 527L TX Procedures II Lab****1 Credit hour**

Observation and in-depth analysis of the clinical process.

Grade Mode: Credit/No Credit Grade Only**CD 563 Aural Rehabilitation****3 Credit hours**

Examination of various intervention strategies appropriate for individuals with hearing impairments; techniques for assessing degree of handicap.

Grade Mode: Normal Grading Mode**CD 570 Clinical Practicum I****1-3 Credit hours**

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. (Permission of the Instructor).

Grade Mode: Normal Grading Mode**CD 570L Intro Clinical Principles****1 Credit hour**

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.

Co-req: CD 570**Grade Mode:** Credit/No Credit Grade Only**CD 571 Clinical Practicum II****1-3 Credit hours**

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. (Pre-requisite CD 570; Permission of the Instructor).

Pre-req: CD 570.**Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**CD 571L Clin Prin of Assessment****1 Credit hour**

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.

Pre-req: CD 570L.**Co-req:** CD 571**Attributes:** No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**CD 580 Special Topics****1-4 Credit hours**

PR: Permission of chair.

Grade Mode: Normal Grading Mode**CD 581 Special Topics****1-4 Credit hours**

PR: Permission of chair.

Grade Mode: Normal Grading Mode**CD 582 Special Topics****1-4 Credit hours**

PR: Permission of chair.

Grade Mode: Normal Grading Mode

CD 583 Special Topics PR: Permission of chair. Grade Mode: Normal Grading Mode	1-4 Credit hours	CD 628 Child Lang Dis: Inf/Presch Advanced study of the development of language; language sampling procedures, analysis and application. Grade Mode: Normal Grading Mode	3 Credit hours
CD 585 Independent Study PR: Permission of chair. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1-4 Credit hours	CD 629 Child Lang Dis: Sch/Adoles Advanced study of current topics in language disorders in children; critical analysis of research literature. Grade Mode: Normal Grading Mode	3 Credit hours
CD 586 Independent Study PR: Permission of chair. Grade Mode: Normal Grading Mode	1-4 Credit hours	CD 630 Cognitive Comm Disorders 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] Grade Mode: Normal Grading Mode	3 Credit hours
CD 587 Independent Study PR: Permission of chair Grade Mode: Normal Grading Mode	1-4 Credit hours	CD 650 Special Topics Program of study not normally covered in other courses. Topics vary from semester to semester. Grade Mode: Credit/No Credit Grade Only	1-4 Credit hours
CD 588 Independent Study PR: Permission of chair Grade Mode: Normal Grading Mode	1-4 Credit hours	CD 651 Special Topics Program of study not normally covered in other courses. Topics vary from semester to semester. Grade Mode: Credit/No Credit Grade Only	1-4 Credit hours
CD 601 Intro to Graduate Studies An introduction to graduate studies, including clinical and research application; quantitative and qualitative research methodology; critical analysis of clinical instrument and research literature. Grade Mode: Normal Grading Mode	3 Credit hours	CD 652 Special Topics Program of study not normally covered in other courses. Topics vary from semester to semester. Grade Mode: Credit/No Credit Grade Only	1-4 Credit hours
CD 602 Prof Issues in SLP This course will discuss current professional issues in speech-language-pathology, including ethics, reimbursement, multiculturalism, counseling, professional conduct, advocacy, and scope of practice. Grade Mode: Normal Grading Mode	2 Credit hours	CD 653 Special Topics Program of study not normally covered in other courses. Topics vary from semester to semester. Grade Mode: Credit/No Credit Grade Only	1-4 Credit hours
CD 620 CD: Cleft Palate & Voice 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. Grade Mode: Normal Grading Mode	3 Credit hours	CD 660 Sp Pop: Clinical Consideration 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. Grade Mode: Normal Grading Mode	3 Credit hours
CD 621 Seminar On Cleft Palate Intensive study of communication problems and treatment associated with the cleft palate; critical analysis of research literature; individual projects. Grade Mode: Normal Grading Mode	3 Credit hours	CD 670 Advanced Clinical Practicum I Supervised clinical practicum in the Marshall University Speech and Hearing Center and in affiliated educational, rehabilitation and medical settings with corresponding professional responsibilities. (PR: CD 571 or permission of instructor) Pre-req: CD 570. Co-req: CD 670L Attributes: No Textbook Required Grade Mode: Normal Grading Mode	1-6 Credit hours
CD 622 Phonological Disorders Advanced study of the phonological component of the linguistic system. Emphasis on phonological disorders in children; social dialects; critical analysis of literature. Grade Mode: Normal Grading Mode	3 Credit hours	CD 670L Clin ISS In Health Care This seminar will present principles related to clinical services in speech-language pathology in a variety of health care settings. Pre-req: CD 571L. Co-req: CD 670 Attributes: No Textbook Required Grade Mode: Credit/No Credit Grade Only	1 Credit hour
CD 623 Fluency Disorders Detailed evaluation of theories of fluency disorders and relevant therapies; critical analyses of research literature. Grade Mode: Normal Grading Mode	3 Credit hours		
CD 624 Foundations Neuro Comm Dis Study of the neurological bases of speech; etiologies and symptoms of dysarthrias and apraxias; principles of assessment and treatment. Grade Mode: Normal Grading Mode	3 Credit hours		
CD 625 Acquired Aphasia Advanced study of the acquired aphasia and commonly co-occurring motor speech disorders; critical analysis of research literature. (PR: Permission of instructor) Advanced study of the acquired aphasia; critical analysis of research literature. Grade Mode: Normal Grading Mode	3 Credit hours		

CD 674 Clin Pract in the Schools**1 Credit hour**

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)

Pre-req: CD 571.**Co-req:** CD 674L**Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**CD 674L Consideration in Public School****1 Credit hour**

This lab/seminar will present special considerations related to providing services in speech-language pathology in the public school setting.

Pre-req: CD 571L.**Co-req:** CD 674**Attributes:** No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**CD 675 Advanced Clin Pract II****1 Credit hour**

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: Advanced Clinical Practicum I)

Pre-req: CD 674.**Co-req:** CD 675L**Grade Mode:** Normal Grading Mode**CD 675L Prof Considerations****1 Credit hour**

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. (co-requisite to CD 675: Advanced Clinical Practicum II)

Pre-req: CD 674.**Co-req:** CD 675**Grade Mode:** Normal Grading Mode**CD 681 Thesis****1-6 Credit hours**

PR: Permission of chair.

Grade Mode: Normal Grading Mode**CD 685 Independent Study****1-4 Credit hours**

PR: Permission of chair.

Grade Mode: Normal Grading Mode**CD 686 Independent Study****1-4 Credit hours**

PR: Permission of chair.

Grade Mode: Normal Grading Mode**CD 687 Independent Study****1-4 Credit hours**

PR: Permission of chair.

Grade Mode: Normal Grading Mode**CD 688 Independent Study****1-4 Credit hours**

PR: Permission of chair.

Grade Mode: Normal Grading Mode**CD 690 Seminar****1-4 Credit hours**

Topics in Communication Disorders not covered in other courses; topics vary from semester to semester. (PR: Permission of Chair)

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**CD 691 Dysphagia & Assoc Motor Sp Dis****1-4 Credit hours**

The study of normal and disordered swallowing across the lifespan including assessment, treatment, and differential diagnosis of dysphagia and associated motor speech disorders; critical analysis of the literature. (PR: CD 624 or Permission of Instructor) Topics in Communication Disorders not covered in other courses; topics vary from semester to semester. (PR: Permission of Chair)

Grade Mode: Normal Grading Mode**CD 692 Seminar****1-4 Credit hours**

Topics in Communication Disorders not covered in other courses; topics vary from semester to semester. (PR: Permission of Chair)

Grade Mode: Normal Grading Mode**CD 693 Seminar****1-4 Credit hours**

Topics in Communication Disorders not covered in other courses; topics vary from semester to semester. (PR: Permission of Chair)

Grade Mode: Normal Grading Mode

Communication Studies (CMM)

CMM 501 Organization Communicatn**3 Credit hours**

Investigation of information flow in organizations with emphasis on identifying communication problems.

Grade Mode: Normal Grading Mode**CMM 502 Rhetorical Theory****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CMM 504 Rhetorical Comm Criticism****3 Credit hours**

An examination of the construction of rhetorical texts and the effects they produce.

Grade Mode: Normal Grading Mode**CMM 506 Interviewing****3 Credit hours**

Skill development in the question-answer-response process as it applies to a variety of interviewing situations.

Grade Mode: Normal Grading Mode**CMM 508 Leadership & Group Comm****3 Credit hours**

A study of the variables affecting, and affected by, the communication process in small groups, with particular emphasis upon leadership variables.

Grade Mode: Normal Grading Mode**CMM 509 Theory Persuasion Change****3 Credit hours**

Study of the relationship between persuasion and social change, including theories of attitude and behavioral change and contemporary theories of persuasion.

Grade Mode: Normal Grading Mode**CMM 511 Communication Std & Res****3 Credit hours**

Introduction to the advanced study of theory and research areas with emphasis on communication research methods and reporting.

Grade Mode: Normal Grading Mode**CMM 513 Theories of Interpersonal Comm****3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CMM 521 Gender and Communication	3 Credit hours	CMM 605 Qual Research Methods	3 Credit hours
An exploration of gender as an organizing principle for communication.		This course provides an introduction to qualitative research methods and their application in communication studies.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CMM 550 Direction Speech Activity	3 Credit hours	CMM 606 Study Communication Thry	3 Credit hours
Direction of extra-curricular speech activities-assemblies, forensic events, etc.		An extensive investigation into the major concepts of con- temporary communication theory.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CMM 556 Computer-Mediated Comm	3 Credit hours	CMM 620 Communication & Conflict	3 Credit hours
This course explores the impact of computer-mediated communication on human organization.		An exploration of the theory, research, and practice of communication in understanding and negotiating interpersonal conflict.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CMM 576 Communication for Cls Tch	3 Credit hours	CMM 650 Leaders/Movements Com Ed	3 Credit hours
Knowledge and utilization of interpersonal communication skills in all teaching-learning environment.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
CMM 580 Special Topics	1-4 Credit hours	CMM 656 Seminar in Public Com	3 Credit hours
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 670 Interpersonal Health Comm	3 Credit hours
CMM 581 Special Topics	1-4 Credit hours	Explores communication demands of human healthcare and healthcare promotion; examines communication controversies in the modern healthcare system, and examines communication strategies to resolve healthcare problems.	
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 671 Health Comm Campaigns	3 Credit hours
CMM 582 Special Topics	1-4 Credit hours	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.	
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 673 Sem Interpersonal Comm	3 Credit hours
CMM 583 Special Topics	1-4 Credit hours	Intensive treatment of principles and processes underlying dyadic communication. Designed to enable the student to diagnose and intervene to resolve communication problems.	
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 674 Seminar Comm Pedagogy	3 Credit hours
CMM 585 Independent Study	1-4 Credit hours	Primarily for graduate teaching assistants to develop instructional skills of preparation, presentation and evalu- ation; to understand instructor duties and requirements, and to exemplify interpersonal skills in dealing with students.	
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 675 Seminar	1-3 Credit hours
CMM 586 Independent Study	1-4 Credit hours	Program of study not normally covered in other courses. Topics vary from semester to semester.	
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 676 Seminar	1-3 Credit hours
CMM 587 Independent Study	1-4 Credit hours	Program of study not normally covered in other courses. Topics vary from semester to semester.	
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		CMM 677 Special Topics	1-3 Credit hours
CMM 588 Independent Study	1-4 Credit hours	Program of study not normally covered in other courses. Topics vary from semester to semester.	
PR: Permission of chair.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode			
CMM 601 Prob & Meth Com Research	3 Credit hours		
An introduction to graduate studies, including clinical and research applications; quantitative and qualitative research methodology; critical analysis of clinical instruments and research literature.			
Grade Mode: Normal Grading Mode			
CMM 602 Comm Consult Strategies	3 Credit hours		
An in-depth analysis of diagnostic and intervention strate- gies employed by communication consultants. Strategies in- clude communication network analysis, communication process observation and consultation, communication role and norm negotiation, and team building.			
Grade Mode: Normal Grading Mode			
CMM 603 Nonverbal Communication	3 Credit hours		
This course examines the major dimensions of study in nonverbal communication, and the functions and effects of nonverbal messages.			
Grade Mode: Normal Grading Mode			

CMM 678 Special Topics**1-3 Credit hours**

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Normal Grading Mode

CMM 680 Grantwriting-Nonprofits**3 Credit hours**

Provides a communication framework for analyzing a nonprofit agency; reviews the steps in grantwriting; matches the needs of the nonprofit organization with the grantfunder; and synthesizes the material required to write a successful grant.

Grade Mode: Normal Grading Mode

CMM 681 Thesis**1-6 Credit hours**

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

CMM 685 Independent Study**1-4 Credit hours**

PR: Permission of chair.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

CMM 686 Independent Study**1-4 Credit hours**

PR: Permission of chair.

Grade Mode: Normal Grading Mode

CMM 687 Independent Study**1-4 Credit hours**

PR: Permission of chair.

Grade Mode: Normal Grading Mode

CMM 688 Independent Study**1-4 Credit hours**

PR: Permission of chair.

Grade Mode: Normal Grading Mode

CMM 689 Internship**1-3 Credit hours**

Supervised work experience in communication. (PR: Permission of Department Chair)

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

Computer & Info Security (CYBR)

CYBR 500 Computer Security Design**3 Credit hours**

The course covers technical and analytical skills to implement comprehensive computer security that encompass designing secure systems, information security, protecting information assets, managing computer security, risk mitigation strategies, and incident response.

Grade Mode: Normal Grading Mode

CYBR 510 Intro to Cybersecurity**3 Credit hours**

This course provides an overview of the cybersecurity field, the basic foundations of the current technology and its impacts along with the predominant threat components and remediation.

Grade Mode: Normal Grading Mode

CYBR 530 Cybersec Policies & Mgmt**3 Credit hours**

The course covers risk management, integrating continuous monitoring and real-time security solutions with information systems to improve situational awareness and deployment of countermeasures.

Grade Mode: Normal Grading Mode

CYBR 535 Cyber Risk**3 Credit hours**

The functions and purposes of the latest developments in cybersecurity are covered. Topics include design, implementation, testing industrial networks and applications to ensure their security and reliability.

Pre-req: CYBR 510 with a minimum grade of D.

Grade Mode: Normal Grading Mode

CYBR 542 Cyber Operations**3 Credit hours**

Study of various concepts and aspects in choosing, deploying, supporting, troubleshooting, and securing various local and distributed components of cyber operation.

Pre-req: CYBR 530 with a minimum grade of D.

Grade Mode: Normal Grading Mode

CYBR 615 Cyber Vulnerability Assess**3 Credit hours**

This course focuses on the complete cycle of enterprise security from identifying vulnerabilities, detecting application exploitation and post exploitation mitigations and analysis for an enterprise level cyber infrastructure.

Grade Mode: Normal Grading Mode

CYBR 620 Cyberwarfare**3 Credit hours**

The course covers both offensive and defensive techniques pertaining to cybersecurity from techniques to find vulnerabilities and analyze the likelihood of an attack to developing solutions to secure cyber infrastructure.

Grade Mode: Normal Grading Mode

CYBR 625 Applied Cryptography**3 Credit hours**

This course introduces fundamentals of cryptography, including classical ciphers, Shannon's perfect secrecy, DES, AES, public-key crypto (RSA), as well as advanced cryptographic schemes.

Grade Mode: Normal Grading Mode

CYBR 680 Research in Cybersecurity**3 Credit hours**

This course covers various research methods and current significant findings in the field of cybersecurity.

Pre-req: CYBR 510 with a minimum grade of D.

Grade Mode: Credit/No Credit Grade Only

CYBR 681 Thesis**3 Credit hours**

Investigate a research problem of theoretical interest and practical value under mentorship of a cybersecurity faculty.

Pre-req: CYBR 680 with a minimum grade of D.

Grade Mode: Credit/No Credit Grade Only

CYBR 685 Independent Study**1-4 Credit hours**

Faculty supervised, individualized course of study.

Grade Mode: Normal Grading Mode

CYBR 698 Internship**1-6 Credit hours**

Supervised work experience in Cybersecurity.

Grade Mode: Credit/No Credit Grade Only

Computer Science (CS)

CS 502 Computer Architecture**3 Credit hours**

Design and analyze structure of major hardware components of computers including: ALU, instruction sets, memory hierarchy and caching, parallelism through multicore and many core, GPGUs, storage systems and interfaces.

Grade Mode: Normal Grading Mode

CS 504 High Performance Computing**3 Credit hours**

Learn how to develop highly optimized applications for multi-core processors and clusters using software tools, parallel algorithms, performance profilers, and programming constructs in MPI, OpenMP, MapReduce, CUDA, and OpenCL.

Grade Mode: Normal Grading Mode**CS 505 Computing for Bioinformatics****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CS 510 Advanced Database Systems****3 Credit hours**

This course introduces advanced topics in database systems including distributed systems, distributed databases, Big Data, cloud service, semantic web, web services, information security & privacy, and electronic commerce.

Grade Mode: Normal Grading Mode**CS 511 Advanced Programming****3 Credit hours**

The course covers advanced topics in Python programming including the use of parallel computation and GPU acceleration and investigate how to exploit frameworks such as Hadoop and Spark.

Grade Mode: Normal Grading Mode**CS 512 Embedded Systems****3 Credit hours**

The design of systems containing embedded computers. Micro-controller technology, assembly language and C programming, input/output interfacing, data acquisition hardware, interrupts, and timing. Real-time operating systems and application programming. Application examples.

Grade Mode: Normal Grading Mode**CS 515 Data Mining****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CS 540 Digital Image Processing****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CS 550 Information Retrieval****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CS 552 Natural Lang Processing****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CS 580 Special Topics****1-4 Credit hours**

Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.

Grade Mode: Normal Grading Mode**CS 581 Special Topics****1-4 Credit hours**

Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.

Grade Mode: Normal Grading Mode**CS 582 Special Topics****1-4 Credit hours**

Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.

Grade Mode: Normal Grading Mode**CS 583 Special Topics****1-4 Credit hours**

Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.

Grade Mode: Normal Grading Mode**CS 600 Advanced Web Technology****3 Credit hours**

This course introduces modern web technologies and covers the concepts, practices, and technologies to design, develop, and manage scalable, reliable and secure web applications using client side and server side programming, mobile technology, web services, rest services, and cloud services that are accessible to a large number of users.

Grade Mode: Normal Grading Mode**CS 601 The Internet of Things****3 Credit hours**

This course covers the Internet of Things (IoT) Technologies. The course includes advanced topics in wireless networking technologies, mobile networks, software and hardware design for IoT applications and systems. In addition, this course offers advanced topics in cybersecurity.

Grade Mode: Normal Grading Mode**CS 602 Cloud Computing****3 Credit hours**

Study of emerging and advanced topics in Cloud Computing including theory and application development in cloud and understand the ways of increasing quality of services for hosted applications.

Grade Mode: Normal Grading Mode**CS 605 Software Specifications****3 Credit hours**

Study of software specification and verification technologies that facilitate: semantic reasoning; and verification of development artifacts including functional models, architecture, and source-code implementations.

Grade Mode: Normal Grading Mode**CS 610 Software Design****3 Credit hours**

Study of approaches to software design that meet availability, manageability, maintainability, performance, reliability, scalability, and securability goals. Emphasis is on object-oriented analysis and design, design patterns and metrics.

Grade Mode: Normal Grading Mode**CS 615 Software Testing****3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CS 620 Applied Algorithms**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CS 625 AI Principles and Methods****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CS 630 Machine Learning****3 Credit hours**

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 processing.

Grade Mode: Normal Grading Mode**CS 645 Advanced Topics Bioinformatics****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CS 650 Special Topics****1-4 Credit hours**

Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.

Grade Mode: Normal Grading Mode**CS 651 Special Topics****1-4 Credit hours**

Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.

Grade Mode: Normal Grading Mode**CS 652 Special Topics****1-4 Credit hours**

Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.

Grade Mode: Normal Grading Mode**CS 653 Special Topics****1-4 Credit hours**

Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another.

Grade Mode: Normal Grading Mode**CS 660 Big Data Systems****3 Credit hours**

Learn high performance computing architectures and methods for developing and querying databases for Big Data.

Grade Mode: Normal Grading Mode**CS 670 Visual Analytics****3 Credit hours**

Study of approaches, algorithms, and tools for Big Data exploration, analysis, and interpretation to enable novel discoveries and innovation. Integrating analytic capabilities of computers and domain knowledge of human analysts.

Grade Mode: Normal Grading Mode**CS 681 Thesis****1-6 Credit hours**

Investigate a research problem of theoretical interest and practical value under mentorship of a computer science faculty.

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**CS 685 Independent Study****1-4 Credit hours**

Pursue faculty supervised, individualized course of study of a topic which is not currently a part of the Computer Science graduate curriculum.

Grade Mode: Normal Grading Mode**CS 686 Independent Study****1-4 Credit hours**

Pursue faculty supervised, individualized course of study of a topic which is not currently a part of the Computer Science graduate curriculum.

Grade Mode: Normal Grading Mode**CS 687 Independent Study****1-4 Credit hours**

Pursue faculty supervised, individualized course of study of a topic which is not currently a part of the Computer Science graduate curriculum.

Grade Mode: Normal Grading Mode**CS 688 Independent Study****1-4 Credit hours**

Pursue faculty supervised, individualized course of study of a topic which is not currently a part of the Computer Science graduate curriculum.

Grade Mode: Normal Grading Mode**CS 690 Comprehensive Project****3 Credit hours**

Develop expertise in an emerging area of computer science through guided study under faculty mentorship.

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**CS 698 Internship****1-3 Credit hours**

Supervised work experience in computer science or related fields.

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only

Counseling (COUN)

COUN 509 Interv:Grp Proc/Dynamics/Thrpy**3 Credit hours****Pre-req:** (COUN 500) and (COUN 507) and (COUN 551).**Grade Mode:** Normal Grading Mode**COUN 515 Humanizing Ed-Person in Proces****3 Credit hours**

Study of career choice theory, career change, counseling approaches in career selection and resources to assist in career choice.

Grade Mode: Normal Grading Mode**COUN 555 Crisis Int & Conf Res****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**COUN 556 Death & Grief Counseling****3 Credit hours**

Death and dying orientation for professionals, nonprofessionals about essentials of life in its terminal stages. Presents practical, theoretical, social and psychological aspects to promote healthy, accepting attitudes.

Grade Mode: Normal Grading Mode**COUN 560 Staff Development****1-4 Credit hours**

To meet needs of school, student personnel, mental health, and other workers. Credit may be used for certificate renewal and salary upgrading, but not degree programs. Titles vary.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only

COUN 561 Staff Development**1-4 Credit hours**

To meet needs of school, student personnel, mental health, and other workers. Credit may be used for certificate renewal and salary upgrading, but not degree programs. Titles vary. (CR/NR grading)

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**COUN 562 Staff Development****1-4 Credit hours**

To meet needs of school, student personnel, mental health, and other workers. Credit may be used for certificate renewal and salary upgrading, but not degree programs. Titles vary (CR/NR)

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**COUN 563 Staff Development****1-4 Credit hours**

To meet needs of school, student personnel, mental health, and other workers. Credit may be used for certificate renewal and salary upgrading, but not degree programs. Titles vary. (CR/NR grading)

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**COUN 571 Health & Wellness Couns****3 Credit hours**

Designed to help counselors deal with lifestyle issues related to physical well-being and demonstrate how health professionals can use counseling interventions in their work.

Grade Mode: Normal Grading Mode**COUN 574 Social & Cultural Found****3 Credit hours**

Recognize and use appropriate resources for effective counseling of people of different cultural, ethnic, social, class, racial, geographic, or other backgrounds. Learn when counseling is appropriate and in what form.

Grade Mode: Normal Grading Mode**COUN 575 Prev & Treat of Addict****3 Credit hours**

Course surveys assessment, diagnosis, and treatment of addiction from a bio-psycho-social perspective.

Pre-req: COUN 600 and COUN 603.**Grade Mode:** Normal Grading Mode**COUN 577 Stress Management Counseling****3 Credit hours**

Provides beginning counselors and others with comprehensive information and strategies for successful management of stress and its consequences. Students explore theoretical and practical alternatives in counseling the stressed individual.

Grade Mode: Normal Grading Mode**COUN 579 Pharmacology in Counseling****3 Credit hours**

Provides basic understanding of the role of therapeutic drugs in the treatment of psychiatric disorders, familiarize with most commonly used drugs, side effects, and adverse reactions in specific mental illness. (PR: COUN 600 & 601)

Grade Mode: Normal Grading Mode**COUN 580 Special Topics****1-4 Credit hours**

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)

Grade Mode: Normal Grading Mode**COUN 581 Special Topics****1-4 Credit hours**

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)

Grade Mode: Normal Grading Mode**COUN 582 Special Topics****1-4 Credit hours**

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)

Grade Mode: Normal Grading Mode**COUN 583 Special Topics****1-4 Credit hours**

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)

Grade Mode: Normal Grading Mode**COUN 585 Independent Study****1-4 Credit hours**

Individual or group study and research of various issues and fields of emphasis in counseling. (PR: Consent)

Grade Mode: Normal Grading Mode**COUN 586 Independent Study****1-4 Credit hours**

Individual or group study and research of various issues and fields of emphasis in counseling. (PR: Consent)

Grade Mode: Normal Grading Mode**COUN 600 Professional Orientation****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**COUN 601 Counsel Consulting Roles****3 Credit hours**

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 focus upon case applications and presentations. (PR: COUN 600 and 607)

Grade Mode: Normal Grading Mode**COUN 602 Human Devel and Adjustment****3 Credit hours**

The course will explore human growth and 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: COUN 600 and 603)

Grade Mode: Normal Grading Mode**COUN 603 Counseling Theories****3 Credit hours**

Survey of classical and contemporary counseling philosophies, history, and techniques as related to interpersonal relationships in the counseling process.

Pre-req: COUN 574 and COUN 600 and COUN 602 and EDF 621.**Grade Mode:** Normal Grading Mode**COUN 604 Group Coun & Tech****3 Credit hours**

Group dynamics, processes, counseling and consulting; includes theories, practices, methods, dynamics, facilitative skills, and supervised practice. (PR: COUN 574, 600, 602, EDF 621 or COUN 609)

Pre-req: COUN 574 with a minimum grade of D and COUN 600 with a minimum grade of D and COUN 602 with a minimum grade of D and (EDF 621 with a minimum grade of D or COUN 609 with a minimum grade of D).

Grade Mode: Normal Grading Mode

COUN 605 Theory Prac Human Appr**3 Credit hours**

Provide an understanding of 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 or COUN 609)

Pre-req: COUN 574 with a minimum grade of D and COUN 600 with a minimum grade of D and COUN 602 with a minimum grade of D and (EDF 621 with a minimum grade of D or COUN 609 with a minimum grade of D).

Grade Mode: Normal Grading Mode

COUN 606 Career & Lifestyle Develop**3 Credit hours**

A study of career development theories and decision-making models that impact career development and related life factors.

Pre-req: COUN 603 and COUN 604 and COUN 605 and COUN 607.

Grade Mode: Normal Grading Mode

COUN 607 Coun Tech & Human Relat**3 Credit hours**

Course focuses on learning and practicing individual counseling techniques from various theoretical perspective. Emphasis on basic interviewing, assessment, and counseling skills that facilitate the helping process. (PR: COUN 574, COUN 600)

Pre-req: COUN 574 with a minimum grade of D and COUN 600 with a minimum grade of D.

Grade Mode: Normal Grading Mode

COUN 608 Practicum**3 Credit hours**

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: Consent. Students must have achieved a minimum grade of B in 606, 607, and EDF 621 or 625)

Pre-req: COUN 603 and COUN 604 and COUN 605 and COUN 607.

Grade Mode: Credit/No Credit Grade Only

COUN 609 Research in Counseling**3 Credit hours**

Course provides the foundation of research methods including qualitative, quantitative and mixed methods. Students will also gain a fundamental understanding of basic statistical concepts.

Grade Mode: Normal Grading Mode

COUN 611 Foundations Comm Coun**3 Credit hours**

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 procedures will be emphasized. (PR: COUN 603)

Grade Mode: Normal Grading Mode

COUN 612 Int-Superv Field Placement K-8**3 Credit hours**

Pre-req: CR 599 and EDF 517 and EDF 621.

Grade Mode: Normal Grading Mode

COUN 613 Int-Suprv Field Placement 5-12**3 Credit hours**

Pre-req: CR 599.

Grade Mode: Normal Grading Mode

COUN 616 Domestic Violence**1-3 Credit hours**

An introduction to the epidemiology, dynamics, clinical interventions and treatment of domestic violence.

Pre-req: (COUN 603).

Grade Mode: Normal Grading Mode

COUN 617 Seminar in Counseling**3 Credit hours**

Investigations in current problems of counseling agencies; content determined by needs of student.

Pre-req: CR 548 and CR 599.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

COUN 620 Workshop in Counseling**1-6 Credit hours**

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)

Grade Mode: Normal Grading Mode

COUN 621 Intro to Child Abuse & Neglect**1 Credit hour**

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 and 603)

Pre-req: (COUN 600 and COUN 603) or CR 614.

Grade Mode: Normal Grading Mode

COUN 622 Family Education**3 Credit hours**

Study of family education skills training for conducting family education groups and parent training. .

Grade Mode: Normal Grading Mode

COUN 628 FAMILY THERAPY IMMERSION**3 Credit hours****COUN 630 Intro to Ment Health Coun****3 Credit hours**

Provides an overview of key functions of the clinical mental health counselor. Areas covered include: ethical decision making, professional identity, theory development, assessment, and diagnosis (PR: COUN 574, 600, 603, 604, 631)

Pre-req: COUN 574 with a minimum grade of D and COUN 600 with a minimum grade of D and COUN 603 with a minimum grade of D and COUN 604 with a minimum grade of D and COUN 631 with a minimum grade of D.

Grade Mode: Normal Grading Mode

COUN 631 Diag & Treatment Planning**3 Credit hours**

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 630)

Pre-req: COUN 600 and COUN 603 and COUN 607.

Grade Mode: Normal Grading Mode

COUN 632 Intro Mar/Coup & Fam Coun**3 Credit hours**

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. (PR: COUN 600)

Pre-req: COUN 600 with a minimum grade of D.

Grade Mode: Normal Grading Mode

COUN 635 Core Funct Addiction Coun**3 Credit hours**

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)

Grade Mode: Normal Grading Mode

- COUN 636 Couple Counseling** 3 Credit hours
This course is designed to introduce students to a variety theoretical concepts, techniques, and their application in the therapeutic setting. Emphasis is on basic interviewing, assessment, and counseling skills that facilitate the helping process through integration of various theoretical orientations.
Grade Mode: Normal Grading Mode
- COUN 637 Adult/Family Dev & Transition** 3 Credit hours
Grade Mode: Normal Grading Mode
- COUN 638 Interven: Mar/Coup/Fam Coun** 3 Credit hours
An intensive practical experience in marriage, couples, and family therapy techniques to prepare the student to enter the supervised internship of the program. (PR: Students must have achieved a minimum grade of B in COUN 637)
Grade Mode: Normal Grading Mode
- COUN 639 Psychotheological Issues** 3 Credit hours
Specialization course offering topics germane to the concerns of Mental-Health workers, pastoral counselors, stress involved in counseling in religious settings.
Grade Mode: Normal Grading Mode
- COUN 640 Sem Spirituality in Coun** 3 Credit hours
Seminar will view spirituality across many Religious traditions. The seminar interweaves spiritual bases and spiritual growth in counseling to better understand responsibility for actions and emotions.
Grade Mode: Normal Grading Mode
- COUN 641 Correction Coun Seminar** 1-9 Credit hours
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)
Pre-req: COUN 600 and COUN 603 or CR 614.
Grade Mode: Normal Grading Mode
- COUN 646 Correctn Coun: Client Advocacy** 3 Credit hours
Techniques of collecting, recording & interpreting data.
Grade Mode: Normal Grading Mode
- COUN 648 LEG/ETHIC/PROF ISSUES-MAR/FAMI** 3 Credit hours
Psychological foundations of personality development with emphasis on principles of mental health as related to problems of everyday living.
Grade Mode: Normal Grading Mode
- COUN 650 Seminar Career Coun** 3 Credit hours
Counseling tools and techniques with emphasis on problem categories and patterns as related to the psychology of individual differences.
Pre-req: CR 599 and CR 548 and CR 614.
Grade Mode: Normal Grading Mode
- COUN 651 Seminar Career Coun** 3 Credit hours
Practical experiences in counseling under professional supervision.
Grade Mode: Normal Grading Mode
- COUN 652 Career Coun Spec Populations** 3 Credit hours
Post-Master's Internship designated to fulfill the requirement for State certification as a school counselor. Not offered in summer terms.
Pre-req: (COUN 500) and (COUN 507).
Grade Mode: Normal Grading Mode
- COUN 653 Career Asses Tech & Rept** 3 Credit hours
Supervised on-the-job experience in Agency Counseling. Supervised on-the-job experiences in counseling.
Pre-req: CR 672 and CR 651.
Grade Mode: Normal Grading Mode
- COUN 654 Family Violence** 3 Credit hours
The course will examine violence in families, covering ages from infancy to elder adulthood with a focus on variations in types of assault, violence, and abuse found within, among, or pertaining to family members across all ages.
Grade Mode: Normal Grading Mode
- COUN 655 Coun Victims Dom Violence** 3 Credit hours
This 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.
Grade Mode: Normal Grading Mode
- COUN 656 DVIII: Children as Victims** 3 Credit hours
This course will address issues related to the cognitive, behavioral, and emotional problems of children who are primary victims or witness of domestic violence, and explore appropriate interventions.
Pre-req: CR 661 and CR 651.
Grade Mode: Normal Grading Mode
- COUN 657 DVI: Working with Victims** 3 Credit hours
The course will focus on victim dynamics, diagnostic indicators that victims may present without revealing abuse, and treatment interventions that focus on victim strengths and empowerment.
Grade Mode: Normal Grading Mode
- COUN 658 Community Response to DV** 3 Credit hours
This course will examine community systems and best practices associated with a centralized approach to victim and child safety and batterer accountability.
Pre-req: CR 613 and CR 651.
Grade Mode: Normal Grading Mode
- COUN 660 Intro to Student Affairs** 3 Credit hours
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.
Pre-req: CR 548 and CR 599 and COUN 603.
Grade Mode: Normal Grading Mode
- COUN 662 Current Issues in Stu Affairs** 3 Credit hours
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)
Pre-req: COUN 603 and COUN 607.
Grade Mode: Normal Grading Mode
- COUN 663 Adv Seminar in Coun Theory** 3 Credit hours
Pre-req: (COUN 509).
Grade Mode: Normal Grading Mode
- COUN 665 Community Resources** 3 Credit hours
Pre-req: (COUN 500) and (COUN 507).
Grade Mode: Normal Grading Mode

- COUN 668 LEGAL/ETHIC ASP COUNS & STU PE** **3 Credit hours**
- COUN 669 Independent Study** **1-6 Credit hours**
Grade Mode: Normal Grading Mode
- COUN 670 Interv Current Issues Sch** **3 Credit hours**
 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)
Pre-req: (COUN 600 and COUN 603) or CR 614.
Grade Mode: Normal Grading Mode
- COUN 671 Voc Coun in the Schools** **3 Credit hours**
 A basic course for the community agency counselor, this course will introduce the student to: Diagnostics, based on the DSM III, Records, Report Writing, Ethics, and Law. (Core courses or permission)
Pre-req: CR 548 and CR 599.
Grade Mode: Normal Grading Mode
- COUN 672 Org & Admin of Sch Coun Prog** **3 Credit hours**
 Provides students with a comprehensive view of community agency program management. The full range of community agencies and the services they provide will be examined and discussed.
Pre-req: COUN 670.
Grade Mode: Normal Grading Mode
- COUN 673 Coun Child Adol Parents** **3 Credit hours**
 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 and 603)
Pre-req: COUN 600 and COUN 603.
Grade Mode: Normal Grading Mode
- COUN 674 Observe Sch Environment** **3 Credit hours**
 Introduction to the roles and functions of school pupil personnel professionals (general classrooms, exceptional student environments, support staff and administration), models of operation, problems, issues, and techniques. The organization and administration of school systems and philosophy of general and special education are considered. Students will spend a minimum of one-half day a week observing in K through 12 schools.
Grade Mode: Normal Grading Mode
- COUN 675 Leg/Ethical Issues for Coun** **3 Credit hours**
 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 counseling; an overview of international, national, regional and state legal and ethical cases effecting the field of 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).
Pre-req: COUN 600 and COUN 603.
Attributes: No Textbook Required
Grade Mode: Normal Grading Mode
- COUN 682 Tr in Trauma Recovery** **3 Credit hours**
 This course explores types of trauma experience in modern society, the inter- and intrapersonal effects those types of trauma on clients, and an introduction to treatment modalities and evidence based practice.
Pre-req: COUN 555.
Grade Mode: Normal Grading Mode
- COUN 683 Psychophys of Trauma** **3 Credit hours**
 This course explores effects of trauma on the central nervous system, psychomotor abilities and physiological and emotional responses to trauma, PTSD, traumatic injury.
Pre-req: COUN 682.
Grade Mode: Normal Grading Mode
- COUN 684 Treating Complex Trauma & Loss** **3 Credit hours**
 This course focuses on the treatment of complex trauma and loss, through investigation of trauma theory, phases of post-traumatic recovery, evidence-based treatment, and practice implications for complex cases. (PR: COUN 556 and COUN 682)
Pre-req: COUN 556 with a minimum grade of C and COUN 682 with a minimum grade of C.
Grade Mode: Normal Grading Mode
- COUN 685 Military Cult & Treat Vets** **3 Credit hours**
 This course is designed to introduce students to the nature of military culture, the unique challenges of deployment and re-entry for both military personnel and their families, and various mental health best practices specific to those affected with combat-related PTSD, TBI, and other traumatic injury.
Pre-req: COUN 682.
Grade Mode: Normal Grading Mode
- COUN 686 Trauma and Suffering** **3 Credit hours**
 This course focuses on existential suffering caused by traumatic stress, and the counseling needs of affected individuals. It explores the nature of swelling, as well as a variety of philosophical, religious, and theoretical approaches to suffering. The course presents best practices for clinical approaches within professional counseling.
Pre-req: COUN 556 and COUN 682.
Grade Mode: Normal Grading Mode
- COUN 691 Intern Mental Health Coun** **3-6 Credit hours**
 Internship in Clinical Mental Health Counseling. CR/NC. 3-6 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)
Pre-req: COUN 608 and COUN 631.
Attributes: No Textbook Required
Grade Mode: Credit/No Credit Grade Only
- COUN 692 Intern Community Counseling** **1-6 Credit hours**
 Supervised experience in community counseling.
Pre-req: COUN 608 and COUN 631.
Grade Mode: Normal Grading Mode
- COUN 693 Internship Marr & Fam Coun** **3-6 Credit hours**
 Internship in Marriage and Family Counseling. CR/NC. 3-6 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 with grade of CR and minimum grade of B in COUN 638).
Pre-req: (COUN 608 and COUN 631) or CR 614.
Grade Mode: Credit/No Credit Grade Only
- COUN 695 Intern in Correct Coun** **3-6 Credit hours**
 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)
Pre-req: (COUN 608 and COUN 641) or CR 614.
Grade Mode: Credit/No Credit Grade Only

COUN 696 Intern Career Coun**3-6 Credit hours**

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)

Grade Mode: Normal Grading Mode**COUN 697 Internship Student Aff Coun****3-6 Credit hours**

Supervised experience in career counseling. Participation in seminars on specified topics. Minimum 100 clock hours for each semester hour credit. (PR: COUN 608 and 652 with a minimum grade of B or permission.)

Grade Mode: Normal Grading Mode**COUN 698 Internship in School Coun****3-6 Credit hours**

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, 670, 672, 675).

Pre-req: COUN 608 with a minimum grade of D and COUN 670 with a minimum grade of D and COUN 672 with a minimum grade of D and COUN 675 with a minimum grade of D.

Grade Mode: Credit/No Credit Grade Only**COUN 740 Internship****1-12 Credit hours**

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. Instructor will indicate in course syllabus whether class is letter graded or S/U. (PR: Consent)

Pre-req: (COUN 611) or (COUN 612) or (COUN 613) or (COUN 614) or (COUN 615) or (COUN 616).

Grade Mode: Credit/No Credit Grade Only**COUN 741 Prof Devel & Advocacy****3 Credit hours**

This course prepares professional counselors for community leadership roles related to client advocacy in multicultural settings, current political trends, theories of social change, social justice, and advocacy planning.

Grade Mode: Normal Grading Mode**COUN 742 Current Issues in School Couns****3 Credit hours**

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)

Pre-req: (COUN 509) and (ED 501) and (PSYC 584).**Grade Mode:** Normal Grading Mode**COUN 746 Systems Intervention****3 Credit hours**

Examination of the major systems which may require intervention by a supervisor of counselors and training in effective intervention strategies. (PR: Consent)

Pre-req: (COUN 612) or (COUN 613).**Grade Mode:** Normal Grading Mode**COUN 747 Adv Group Counseling****3 Credit hours**

The application of counseling theories in group settings, including supervised group leadership experiences. (PR: Consent)

Grade Mode: Normal Grading Mode**COUN 750 Seminar****1-6 Credit hours**

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 or S/U. (PR: Consent)

Pre-req: COUN 608 or COUN 603G or CR 614.**Grade Mode:** Normal Grading Mode**COUN 755 Models of Counselor Supervisn****3 Credit hours**

A survey of theoretical approaches and techniques counseling supervision. Emphasis is placed on supervision of counselors in various settings. (PR: Consent)

Pre-req: (COUN 612) or (COUN 613).**Grade Mode:** Normal Grading Mode**COUN 756 Residency in Counselor Suprvsn****6 Credit hours**

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)

Grade Mode: Normal Grading Mode**COUN 760 Special Topics****1-6 Credit hours**

Study, reading, and research in specialized areas of counseling, human relations, guidance or other special The Master of Arts

Grade Mode: Normal Grading Mode

Criminal Justice (CJ)

CJ 500 Applied Ethics in CJ**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CJ 503 Understanding Cybercrime****3 Credit hours**

Examination of hacking, piracy, cyber stalking, cyber bullying, identity theft, and other cybercrimes through the lens of various criminological theories with an emphasis on research methodology and criminal justice policy.

Grade Mode: Normal Grading Mode**CJ 504 Theoretical Criminology****3 Credit hours**

A critical analysis of the major criminological theories and their empirical foundations. Current theory and research receive greater emphasis than historical development.

Grade Mode: Normal Grading Mode**CJ 505 Women and the CJS****3 Credit hours**

Examines factors surrounding women and the criminal justice system from a theoretical and practical perspective. Explores feminist ideologies, plus women as victims, offenders, and professionals in the justice system.

Grade Mode: Normal Grading Mode**CJ 506 Race, Ethnicity, Class, & Crime****3 Credit hours**

Examines the impact and relationship of race, ethnicity, and social class within the criminal justice system.

Grade Mode: Normal Grading Mode

CJ 510 Police Administration**3 Credit hours**

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. Police department organizations. Development of personal and employment practices in law enforcement. Issues concerning unions and unionization. Problems and techniques of management.

Grade Mode: Normal Grading Mode**CJ 515 Rural Criminology****3 Credit hours**

Critical analysis of rural crime and the criminological sub-field of rural criminology. Examines the economic, racial, and cultural conditions in rural America which reproduce exploitive economies and overall destructive behaviors.

Grade Mode: Normal Grading Mode**CJ 516 Terrorism****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CJ 517 CJ Decision Making****3 Credit hours**

Focuses on theories of criminal justice decision-making and decision points across the criminal justice system. Topics include the decision to report crime, police decisions, jury decisions, and sentencing decisions.

Grade Mode: Normal Grading Mode**CJ 518 Crime and Pop Culture****3 Credit hours**

A critical examination of the popular culture presentations of crime, offenders, victims, and the criminal justice processes.

Grade Mode: Normal Grading Mode**CJ 522 Law of Evidence****3 Credit hours**

Leading rules and principles of exclusion and selection; burden of proof, nature and effect of presumptions; proof of authenticity and contents of writing; examinations competency and privilege of witnesses.

Grade Mode: Normal Grading Mode**CJ 524 Computer Crime****3 Credit hours**

Students will identify and define criminal acts committed with computers or directed toward computer systems, electronic search and seizure and electronic evidence.

Grade Mode: Normal Grading Mode**CJ 526 Civil Liability Issues CJ****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CJ 533 Correctional Administration****3 Credit hours**

Objectives of correctional institutions; records; personnel, program development, security; educational programs.

Grade Mode: Normal Grading Mode**CJ 540 CJ Response to Dom Violence****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CJ 550 Bus & Industry Security****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CJ 553 Seminar Crime Prevention****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CJ 560 Miscarriages of Justice****3 Credit hours**

This course provides a critical examination of the processes and procedures used by police, prosecutors, defense attorneys, judges, and corrections agents which may potentially produce errors or "miscarriages" of justice.

Grade Mode: Normal Grading Mode**CJ 580 Special Topics****1-4 Credit hours**

A study of special interest criminal justice topics under the supervision of a qualified faculty member.

Grade Mode: Normal Grading Mode**CJ 581 Special Topics****1-4 Credit hours**

A study of special interest criminal justice topics under the supervision of a qualified faculty member.

Grade Mode: Normal Grading Mode**CJ 582 Special Topics****1-4 Credit hours**

A study of special interest criminal justice topics under the supervision of a qualified faculty member.

Grade Mode: Normal Grading Mode**CJ 583 Special Topics****1-4 Credit hours**

A study of special interest criminal justice topics under the supervision of a qualified faculty member.

Grade Mode: Normal Grading Mode**CJ 585 Independent Study****1-4 Credit hours**

This course permits the student to undertake supervised research (field or library) in any area where there is no appropriate course.

Grade Mode: Normal Grading Mode**CJ 586 Independent Study****1-4 Credit hours**

This course permits the student to undertake supervised re- search (field or library) in any area where there is no appropriate course.

Grade Mode: Normal Grading Mode**CJ 587 Independent Study****1-4 Credit hours**

This course permits the student to undertake supervised research (field or library) in any area where there is no appropriate course.

Grade Mode: Normal Grading Mode**CJ 588 Independent Study****1-4 Credit hours**

This course permits the student to undertake supervised research (field or library) in any area where there is no appropriate course.

Grade Mode: Normal Grading Mode**CJ 590 Internship****1-6 Credit hours**

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.

Grade Mode: Credit/No Credit Grade Only

CJ 601 Seminar Criminal Justice**3 Credit hours**

A forum to acquaint students, faculty and guests with each others' research and experiences in dealing with criminal justice issues.

Grade Mode: Normal Grading Mode

CJ 604 Adv Theory Criminal Just**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CJ 621 Adv Crim Law & Procedure**3 Credit hours**

A review of contemporary legislation and court decisions relating to criminal law and procedure.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

CJ 655 Research Methods in CJ**3 Credit hours**

Elements of scientific research; interaction between research and theory; use of data processing resources.

Grade Mode: Normal Grading Mode

CJ 656 Applied Statistics in CJ**3 Credit hours**

Principles of statistical techniques with emphasis upon their application in the Criminal Justice system. (PR: Undergraduate statistics course and permission)

Pre-req: CJ 655.

Grade Mode: Normal Grading Mode

CJ 679 Problem Report**3 Credit hours**

The preparation of a written report on a research problem or field study in Criminal Justice. (PR: CJ 655 and Permission)

Pre-req: CJ 655.

Grade Mode: Normal Grading Mode

CJ 681 Thesis**1-6 Credit hours**

Grade Mode: Credit/No Credit Grade Only

CJ 699 Capstone Experience**3 Credit hours**

A culminating experience where students will apply knowledge and skills learned in their program of study to create, in collaboration with an agency or organization in the field, an original, scholarly work that addresses a current issue of concern.

Pre-req: CJ 601 and CJ 604 and CJ 655 and CJ 656.

Grade Mode: Normal Grading Mode

Cultural Studies-Humanities (CULS)

CULS 500 Stdys in Thought & Culture**3 Credit hours**

Basic concepts and cultural expressions in words, principally of area or period studies, such as classical Western, medieval Western, modern European and American.

Grade Mode: Normal Grading Mode

CULS 530 Appr to Communic Criticism**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CULS 540 World Religions**3 Credit hours**

Study of several religions as they developed within their individual times and cultures.

Grade Mode: Normal Grading Mode

CULS 550 Ethics**3 Credit hours**

A critical examination of ethical theories as seen in a detailed examination of several works. Theories may include naturalism, intuitionism, non-cognitivism, unitarianism, and natural law.

Grade Mode: Normal Grading Mode

CULS 560 History of Ideas**3 Credit hours**

A study of the efforts of philosophers to construct general conceptions of the world. Recent approaches in the investigation of oncology and cosmology will be examined.

Grade Mode: Normal Grading Mode

CULS 600 Selected Topics in Cultural St**1-6 Credit hours**

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.

Grade Mode: Normal Grading Mode

CULS 610 Seminar in Appalachian Culture**3 Credit hours**

Exploration of selected aspects of culture (e.g., art, music folklore, history, literature), emphasizing regional culture from an interdisciplinary perspective.

Grade Mode: Normal Grading Mode

CULS 611 Appal Std: Themes & Voices**3 Credit hours**

This interdisciplinary course orients students to the significant issues and research in Appalachian studies. Important political, social, and cultural issues will be considered. Research areas are introduced.

Grade Mode: Normal Grading Mode

CULS 612 Time & Place in Appalachia**3 Credit hours**

This interdisciplinary course orients students to the importance of geography, topography, and geology to the history and development of the Appalachian region.

Grade Mode: Normal Grading Mode

CULS 620 Women/Men & Cultural Change**3 Credit hours**

A study of gender differences from sociological and philosophical perspectives. Topical areas covered include communications, law, literature, popular culture, ethics, and business.

Grade Mode: Normal Grading Mode

CULS 650 Classical Fdtns Comm Studies**3 Credit hours**

Cause 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

Grade Mode: Normal Grading Mode

CULS 651 1st Amendment-Social/Ed Issues**3 Credit hours**

Grade Mode: Normal Grading Mode

CULS 652 Communications/Social Mvmts**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CULS 653 Media & the Political Process**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

Curr & Inst Math Educa (CIME)

CIME 500 Math for the Elem Teach I 3 Credit hours

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.

Grade Mode: Normal Grading Mode

CIME 501 Math for the Elem Tchr II 3 Credit hours

Continuation of CIME 500. Continuation of CIME 500. (PR: CIME 500)

Grade Mode: Normal Grading Mode

CIME 555 Technical Math for Math Educa 3 Credit hours

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. This course will cover the objectives of applied and technical preparation mathematics for teachers, with an emphasis on methodologies appropriate for those students who are likely to comprise these classes.

Grade Mode: Normal Grading Mode

CIME 556 Finite Math for Math Educa 3 Credit hours

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. This course will cover the methods and objectives of business and technical preparation mathematics courses with an emphasis on teaching methodologies appropriate for those students who are likely to comprise these classes

Grade Mode: Normal Grading Mode

CIME 560 Staff Development 1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIME 561 Staff Development 1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIME 562 Staff Development 1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIME 563 Staff Development 1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIME 564 Staff Development 1-4 Credit hours

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIME 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 581 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 582 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 583 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 584 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 585 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 586 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 587 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 588 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 591 Workshop 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 592 Workshop 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 593 Workshop 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 594 Workshop 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIME 650 Algebra for Math Educator 3 Credit hours

Specialized mathematical knowledge for teaching: An in-depth study of topics typically found in a college algebra course.

Grade Mode: Normal Grading Mode

CIME 657 Precalculus for Math Educa 3 Credit hours

Specialized mathematical knowledge for teaching: A study of advanced algebraic structures and functions of change, including an introduction to calculus.

Grade Mode: Normal Grading Mode

CIME 658 Geometry for Math Educator 3 Credit hours

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.

Grade Mode: Normal Grading Mode

CIME 670 Teaching Mathematics 3 Credit hours

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.

Grade Mode: Normal Grading Mode

CIME 673 Elem Math Methds Practice K-6 3 Credit hours

Culmination course that provides a setting for examining research-based elementary math methods and leadership, and a supervised practicum teaching experience in an educational field-based environment.

Pre-req: CIME 500 and CIME 501 and CIME 555 and CIME 650 and CIME 658.

Grade Mode: Normal Grading Mode

CIME 675 Superv Field Prac/Math 5-8 3 Credit hours

Supervised practicum in which the student demonstrates and is assessed in mathematics teaching skills in a clinical setting in grades 5-9.

Grade Mode: Credit/No Credit Grade Only

CIME 677 Superv Field Pract/Math 5-12 3 Credit hours

Supervised practicum in which the student demonstrates and is assessed in mathematics teaching skills in a clinical setting in grades 9-12.

Grade Mode: Credit/No Credit Grade Only

Curr & Inst Reading Educa (CIRG)

CIRG 509 Rdg Recovery Theor Concerns 6 Credit hours

Grade Mode: Normal Grading Mode

CIRG 560 Staff Development 1-4 Credit hours

Courses and activities designed to meet the inservice needs of public school personnel. Credit in these courses may be used for renewal and salary upgrades if approved, but may not be used for degree programs. CR\NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIRG 561 Staff Development 1-4 Credit hours

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 degree programs. CR\NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIRG 562 Staff Development 1-4 Credit hours

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 degree programs. CR\NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIRG 563 Staff Development 1-4 Credit hours

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 degree programs. CR\NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIRG 564 Staff Development 1-4 Credit hours

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 degree programs. CR\NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIRG 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 581 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 582 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 583 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 585 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 586 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 587 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 588 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CIRG 601 Prof Guid Lit Spec 3 Credit hours

Professional guidance for the Literacy Specialist is an elective course for candidates in the Master's in Reading Education. It supports the program's assessment

Grade Mode: Credit/No Credit Grade Only

CIRG 610 Multimodal Literacy 3 Credit hours

This graduate class examines the theories, processes, and strategies of multi-modal classroom literacy. Intended for literacy specialists, the course investigates relevant theory, research, and practical applications to classroom literacy.

Grade Mode: Normal Grading Mode

CIRG 613 Children's Literature 3 Credit hours

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.

Grade Mode: Normal Grading Mode

CIRG 614 Rdg 9-Adult Lit Skill Dev 3 Credit hours

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.

Grade Mode: Normal Grading Mode

CIRG 615 Writing in Literacy Curriculum 3 Credit hours

Examine, develop, implement and evaluate traditional and electronic writing within a balanced literacy framework.

Grade Mode: Normal Grading Mode

CIRG 616 Lang Structures 3 Credit hours

This graduate class examines an approach to spelling instruction based on an understanding of English orthography and the way students develop as sellers, readers, and writers.

Grade Mode: Normal Grading Mode

CIRG 621 Curr Issues & Prob Reading**3 Credit hours**

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)

Pre-req: CIRG 654.**Grade Mode:** Normal Grading Mode**CIRG 622 Literacy Technology****3 Credit hours**

Candidates will plan for literacy instruction and use literacy technology in their classrooms. Emphasis will be given to the Internet and educational software.

Grade Mode: Normal Grading Mode**CIRG 623 Lit Facilitator Pract****3 Credit hours**

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.

Pre-req: CIRG 654.**Grade Mode:** Normal Grading Mode**CIRG 636 Developmental Reading****3 Credit hours**

Principles and practices of teaching developmental reading.

Grade Mode: Normal Grading Mode**CIRG 637 Literacy Assessment****3 Credit hours**

Study and the causes of reading difficulties, devices and techniques, and remedial methods and materials. (PR: CIRG 636 and 644)

Grade Mode: Normal Grading Mode**CIRG 642 Special Needs in Reading****3 Credit hours**

Study of research findings, methodology and instructional materials for atypical learners, illiterate adults and others.

Pre-req: CIRG 654.**Grade Mode:** Normal Grading Mode**CIRG 643 Tch Strug Readers Practicum****3 Credit hours**

Clinical experiences in the diagnosis and corrective treatment of reading disabilities. (PR: CIRG 654)

Pre-req: CIRG 654.**Grade Mode:** Normal Grading Mode**CIRG 644 Literacy in the Content Area****3 Credit hours**

Principles underlying the teaching of reading in the content fields.

Grade Mode: Normal Grading Mode**CIRG 651 Prin of Family Literacy****3 Credit hours**

This course examines different family literacy programs and anchors the literacy needs of family members in what is known about linguistic, cognitive, and literacy development.

Grade Mode: Normal Grading Mode**CIRG 652 Develop/Eval Fam Lit Prog****3 Credit hours**

This is a development and evaluation course in family literacy intended for active practitioners.

Grade Mode: Normal Grading Mode**CIRG 653 Literacy Acquisition****3 Credit hours**

Literacy acquisition is a foundation course open to professionals whose interests require understanding of the process involved in becoming literate.

Grade Mode: Normal Grading Mode**CIRG 654 Aligning Assess with Instruct****3 Credit hours**

Experiences in analyzing diagnostic test results, preparing diagnostic reports, and selecting appropriate materials and procedures to meet specific reading needs. (PR: CIRG 637)

Pre-req: (CIRG 637 and CIRG 636 and CIRG 622 and CIRG 615 and CIRG 644 and CIRG 653).**Grade Mode:** Normal Grading Mode**CIRG 701 Seminar I****3 Credit hours**

An investigation of research in reading that has made a difference in education, pupil achievement in reading, the role of reading, and role of the reading specialist. (PR: Master's degree, consent of instructor)

Grade Mode: Normal Grading Mode**CIRG 702 Seminar II****3 Credit hours**

An examination of research that has the potential to bring about changes in reading education and school curriculum.

Grade Mode: Normal Grading Mode**CIRG 703 Reading Tests & Techniques****3 Credit hours**

An examination of research related to the development of reading and reading-related diagnostic procedures. A detailed study will be made of standardized tests, the Informal Reading Inventory (IRI) and other similar diagnostic measures and competency-based instruments.

Grade Mode: Normal Grading Mode**CIRG 704 Advanced Instructional Tech****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CIRG 705 Applied Research****3-6 Credit hours**

Planning and implementing a study investigating aspects of reading theory. The study will necessitate deriving empirical data under field conditions.

Grade Mode: Normal Grading Mode**CIRG 706 Applied Research****3-6 Credit hours**

Planning and implementing a study investigating aspects of reading theory. The study will necessitate deriving empirical data under field conditions.

Grade Mode: Normal Grading Mode**CIRG 707 Issues in Reading****3 Credit hours**

A review of trends and issues in reading education focusing on the complexity of the reading process.

Grade Mode: Normal Grading Mode**CIRG 708 Phil & Hist of Reading Educa****3 Credit hours**

A study of the philosophical foundation of current reading programs. This course will review the historical background and progress in reading education.

Grade Mode: Normal Grading Mode**CIRG 709 Inservice: Aspect of Rdng Ed****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CIRG 710 Independent Study****3 Credit hours**

Individualized study of advanced topics in reading.

Grade Mode: Normal Grading Mode

Curr & Inst Science Educa (CISE)

CISE 560 Staff Development 1-4 Credit hours

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 degree programs. CR\NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CISE 561 Staff Development 1-4 Credit hours

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 degree programs. CR\NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CISE 562 Staff Development 1-4 Credit hours

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 degree programs. CR\NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CISE 563 Staff Development 1-4 Credit hours

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 be used for degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CISE 564 Staff Development 1-4 Credit hours

Courses and activities designed to meet 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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CISE 570 Flora & Fauna K-9 3 Credit hours

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 flora and fauna that live here.

Grade Mode: Normal Grading Mode

CISE 571 Dev Thematic Sci Elem/Mdle Sch 3 Credit hours

A study of the strategies and techniques needed to plan, implement and evaluate a thematic, coordinated, and integrated science program in the schools.

Grade Mode: Normal Grading Mode

CISE 572 Environ Ed Elem/Mdle Sch Tchr 3 Credit hours

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.

Grade Mode: Normal Grading Mode

CISE 573 Chem for Elem/Middle School 3 Credit hours

A study of the fundamental principles of chemistry focusing on developmentally appropriate methods, strategies and techniques to assist with concept development and attainment.

Grade Mode: Normal Grading Mode

CISE 574 Integrated Sci for Elem Sch 3 Credit hours

Study an application of the concepts and activities included in an integrated science program for the elementary school.

Grade Mode: Normal Grading Mode

CISE 575 Integrated Sci/Middle School 3 Credit hours

Study and applications of the concepts and activities included in an integrated science program for the middle school.

Grade Mode: Normal Grading Mode

CISE 576 Phy Wave Phen & Elect K-9 3 Credit hours

A study of the fundamental principals of physics focusing on wave phenomena and electricity for the elementary/ middle school teacher.

Grade Mode: Normal Grading Mode

CISE 577 Physics: Energy & Matter K-9 3 Credit hours

A study of the fundamental principles of physics focusing on energy and matter for elementary and middle school teachers.

Grade Mode: Normal Grading Mode

CISE 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CISE 581 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CISE 582 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CISE 583 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CISE 585 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CISE 586 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CISE 587 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CISE 588 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

CISE 591 Workshop 1-4 Credit hours

Grade Mode: Normal Grading Mode

CISE 592 Workshop 1-4 Credit hours

Grade Mode: Normal Grading Mode

CISE 593 Workshop 1-4 Credit hours

Grade Mode: Normal Grading Mode

CISE 594 Workshop 1-4 Credit hours

Grade Mode: Normal Grading Mode

Curr & Inst Second Lang (CISL)

CISL 550 Second Language Acquisition 3 Credit hours

This course examines current theories of second language acquisition and their implications for second language teaching and learning.

Grade Mode: Normal Grading Mode

CISL 551 Linguistics for ESL**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CISL 552 Intercultural Comm/ESL**3 Credit hours**

This courses focuses on the interrelationship of language and culture and includes analyses of world cultures, with literature and the arts as bridges. Participants develop teaching materials for ESL classrooms.

Grade Mode: Normal Grading Mode

CISL 555 Practicum for ESL**3 Credit hours**

A culminating practicum that involves participation in ESL curriculum evaluation and development.

Pre-req: CISL 554.

Grade Mode: Credit/No Credit Grade Only

CISL 560 Staff Development**1-4 Credit hours**

Grade Mode: Credit/No Credit Grade Only

CISL 561 Staff Development**1-4 Credit hours**

Grade Mode: Credit/No Credit Grade Only

CISL 562 Staff Development**1-4 Credit hours**

Grade Mode: Credit/No Credit Grade Only

CISL 563 Staff Development**1-4 Credit hours**

Grade Mode: Credit/No Credit Grade Only

CISL 564 Staff Development**1-4 Credit hours**

Grade Mode: Credit/No Credit Grade Only

CISL 653 Methods ESL:Language**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CISL 654 Methods ESL: Literacy**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CISL 655 Practicum for ESL**3 Credit hours**

A culminating practicum that involves participation in ESL curriculum evaluation and development.

Grade Mode: Credit/No Credit Grade Only

Curr Inst Educa Computing (CIEC)

CIEC 534 Appli Software Class Curr Area**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CIEC 560 Staff Development**1-4 Credit hours**

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIEC 561 Staff Development**1-4 Credit hours**

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIEC 562 Staff Development**1-4 Credit hours**

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIEC 563 Staff Development**1-4 Credit hours**

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIEC 564 Staff Development**1-4 Credit hours**

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CIEC 580 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

CIEC 581 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

CIEC 582 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

CIEC 583 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

CIEC 585 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

CIEC 586 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

CIEC 587 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

CIEC 588 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

CIEC 591 Workshop**1-4 Credit hours**

Grade Mode: Normal Grading Mode

CIEC 592 Workshop**1-4 Credit hours**

Grade Mode: Normal Grading Mode

CIEC 593 Workshop**1-4 Credit hours**

Grade Mode: Normal Grading Mode

CIEC 594 Workshop**1-4 Credit hours**

Grade Mode: Normal Grading Mode

CIEC 600 Instructional Design & Tech**3 Credit hours**

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).

Grade Mode: Normal Grading Mode**CIEC 610 Local Area Net/Telecom in Sch****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**CIEC 615 Online Course Devel/Delivery****3 Credit hours**

This course offers participants the opportunity to explore strategies and issues related to the development and delivery of online courses.

Grade Mode: Normal Grading Mode**CIEC 620 Software Eval & Selection****3 Credit hours**

In-depth evaluation of software based on student-developed criteria. (PR: CIEC 600 or equivalent)

Grade Mode: Normal Grading Mode**CIEC 630 Authoring Systems & Multimedia****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CIEC 635 Using Internet in Classroom****3 Credit hours**

This course provides an introduction to the Internet, with an emphasis on the World Wide Web and its potential uses for teaching and learning.

Grade Mode: Normal Grading Mode**CIEC 660 Computers in Instruction****3 Credit hours**

This course is designed for inservice teachers who are familiar with the "BASIC programming" language and who wants to learn how the microcomputer can be utilized in a content area. (PR: CI 530)

Grade Mode: Normal Grading Mode**CIEC 699 Final Project in Curr Area****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**CIEC 700 Technology and Curriculum****3 Credit hours**

This course provides an overview of current issues related to technology in education while also providing participants with the opportunity to improve personal technology skills and use.

Grade Mode: Normal Grading Mode

Curr Inst Special Ed (CISP)

CISP 510 Instructional Prac/Excep Child**3 Credit hours**

An introductory course on applied planning and instructional approaches for the exceptional child. The course will introduce students to validated classroom practices for the beginning classroom teacher.

Grade Mode: Normal Grading Mode**CISP 520 Intro to Exceptional Child****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**CISP 521 Child w Exceptionalities****3 Credit hours**

Behavioral characteristics of children with exceptional development, dynamics of family-community interaction, and attitudes toward exceptional conditions. Implications for amelioration and educational planning. (Not for Special Education majors)

Grade Mode: Normal Grading Mode**CISP 526 Introduction to Gifted****3 Credit hours**

An overview of giftedness in children, definitions, etiology, observable characteristics and implications for educational agencies.

Grade Mode: Normal Grading Mode**CISP 527 Introduction to Autism****3 Credit hours**

This is an online course designed to survey current issues in the education and treatment of students with autism spectrum disorder (ASD). The course is the first in a two-course sequence that leads to the WV Autism Teaching Endorsement.

Grade Mode: Normal Grading Mode**CISP 529 Intro to Develop Disabilities****3 Credit hours**

Introduction to the characteristics and needs of young children with developmental disabilities addressing the physical, neurological, health, and environmental problems that impact atypical growth and development.

Grade Mode: Normal Grading Mode**CISP 535 Gen Spec Ed Programming****3 Credit hours**

Address the educational/curricular needs of students with mild learning problems in the categorical areas of mental retardation, behavior disorders, and specific learning disabilities. (PR: CI 320/520 and 433/533 or 423/523 or 424/524 or permission of instructor)

Grade Mode: Normal Grading Mode**CISP 553 Characteristics Methods ID****3 Credit hours**

Characteristics and effective instructional strategies appropriate for students with intellectual disabilities are considered. Emphasis will be on evidence and research based practices to address academic achievement and functional performance.

Pre-req: CISP 520.**Grade Mode:** Normal Grading Mode**CISP 554 Families of Except Students****3 Credit hours**

Principles and information designed to give the student an understanding of the needs and rights of parents of exceptional children and techniques to involve parents successfully in their child's education.

Grade Mode: Normal Grading Mode**CISP 560 Staff Development****1-4 Credit hours**

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only

CISP 561 Staff Development**1-4 Credit hours**

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**CISP 562 Staff Development****1-4 Credit hours**

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**CISP 563 Staff Development****1-4 Credit hours**

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**CISP 564 Staff Development****1-4 Credit hours**

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 degree programs. CR/NC grading.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**CISP 580 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISP 581 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISP 582 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISP 583 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISP 585 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISP 586 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISP 587 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISP 588 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**CISP 600 Grant Writing in Sp Ed****3 Credit hours**

A review of the federal and state guidelines for writing grants in Special Education. The priority areas of special education in which monies are currently available will also be examined.

Grade Mode: Normal Grading Mode**CISP 601 Psych Found Giftedness****3 Credit hours**

A study of measures used to identify the gifted and interpretation of results, psychological development of the gifted and psychological pressures, problems and adjustments strategies towards mental health in the gifted child.

Grade Mode: Normal Grading Mode**CISP 602 Education Gifted Children****3 Credit hours**

Educational models, identification techniques, teaching strategies and resources available for gifted children. Current trends in curriculum development for the gifted are also examined. (PR: CISP 526)

Grade Mode: Normal Grading Mode**CISP 603 Field Experience: Gifted****3 Credit hours**

Supervised experiences (one semester) in field work with children who exhibit potential giftedness.

Pre-req: CISP 602.**Grade Mode:** Credit/No Credit Grade Only**CISP 604 Pract Emotional Disturb****3 Credit hours**

An initial participation and observation experience with children experiencing behavior problems. Course evolves around bi-weekly seminar and selected projects.

Grade Mode: Credit/No Credit Grade Only**CISP 606 Reading Strat Except Student****3 Credit hours**

This course examines research-strategies in reading instruction for students with high-incidence disabilities. This includes application of appropriate techniques in assessment, materials, and instructional strategies for adapted reading lessons.

Grade Mode: Normal Grading Mode**CISP 607 Math Strat Except Students****3 Credit hours**

Examines mathematics curriculum, methods, and adapted materials for students with mild to moderate disabilities in K-12 classrooms. Emphasizes strategies for accessing the general education curriculum, higher-level courses, and technology.

Grade Mode: Normal Grading Mode**CISP 611 Special Ed Research I****3 Credit hours**

The study of problems related to the area of exceptionality receiving emphasis in the student's degree program. (PR: CI 603, 649, 651 or 674, EDF 621 or 625)

Grade Mode: Normal Grading Mode**CISP 615 Special Ed Research II****3 Credit hours**

As a part of the requirements for this course, the student will submit a written, bound document, which will be added to the college library collection. (PR: CISP 611)

Pre-req: CISP 611.**Grade Mode:** Normal Grading Mode**CISP 626 Diagnostic-Clin Practices****3 Credit hours**

Collaborative/consultative multi-disciplinary and curriculum-based assessment process and their use in developing appropriate interventions linking instruction to content standards and objectives. Team approach to diagnosis and treatment of exceptional children. (PR: CISP 520)

Pre-req: (CI 520 or CISP 520) or (CI 521 or CISP 521).**Grade Mode:** Normal Grading Mode**CISP 627 Issues Special Education****3 Credit hours**

An in-depth look at current issues effecting all areas of special education as well as issues specific to each special education category.

Grade Mode: Normal Grading Mode**CISP 629 Special Education Seminar****3 Credit hours**

Research methods and current significant findings in special education. Guest speakers. Advanced special education students only.

Grade Mode: Normal Grading Mode

CISP 645 Characteristics Methods E/BD**3 Credit hours**

Recognition of socio-emotional issues, assessment of educational needs, establishment of programs to implement behavioral change and provision of necessary modification in educational programs to remediate learning and behavioral difficulties of children.

Grade Mode: Normal Grading Mode

CISP 646 Field Exper Learn Disability**3 Credit hours**

Field Experience (practicum) affords graduate students an opportunity to demonstrate the skill-based competencies required by CEC standards and to qualify for an LD teaching license. Supervised experiences of one semester in field work with children or youth who exhibit symptoms of problems in learning.

Pre-req: CISP 523 or CISP 523) and (CI 647 or CISP 647).

Grade Mode: Credit/No Credit Grade Only

CISP 647 Char/Mthd Spec Lrn Disabilities**3 Credit hours**

Recognition of learning disabilities, assessment of educational needs, and understanding of evidence-based teaching techniques and interventions to promote success of students with or at-risk of learning disabilities.

Pre-req: CISP 520.

Grade Mode: Normal Grading Mode

CISP 648 Field Exp Phys Handicap**3 Credit hours**

Grade Mode: Credit/No Credit Grade Only

CISP 649 Field Exper Emotional Distur**3 Credit hours**

Supervised field experiences (one semester) working with children who exhibit symptoms of emotional disturbances- behavioral disorders. (PR: CISP 520 and CISP 624)

Pre-req: (CI 524 or CISP 524) and (CI 645 or CISP 645).

Grade Mode: Credit/No Credit Grade Only

CISP 650 Sp Ed Evaluate Teach Tech**3 Credit hours**

Educational assessment and diagnostic evaluation for remediation- amelioration; advanced course for providing understanding and utilization of evaluation, teacher assessment, and analysis for programming for exceptional individuals. (PR: CISP 626)

Grade Mode: Normal Grading Mode

CISP 651 Field Exper Mental Impairment**3 Credit hours**

Field Experience (practicum) allows candidates to demonstrate skill-based competencies required by CEC and to qualify for a teaching license in mild/moderate Mental Impairment. All-day supervised teaching in special classes in the public schools required of all students who are completing curriculum for teachers of mentally retarded children. (PR: CI 533 and CI 553)

Pre-req: (CI 533 or CISP 533) and (CI 553 or CISP 553).

Grade Mode: Credit/No Credit Grade Only

CISP 652 Reading & Spell for Learn Dis**3 Credit hours**

An integrated, in-depth study of current LD reading and written language programs as determined by research studies. Tutoring of LD student is required.

Grade Mode: Normal Grading Mode

CISP 655 Field Exp: Multi-Categorical**3 Credit hours**

Field Experience (Practicum) affords graduate students an opportunity to demonstrate the skill-based competencies required by CEC Standards and to qualify for the multi- categorical teaching license. (PR: CISP 553, 645, and 647)

Pre-req: CISP 645 and CISP 647 and CISP 553.

Grade Mode: Credit/No Credit Grade Only

CISP 656 Field Experience Non Public**3 Credit hours**

Field experience in a non-public setting affords graduate students an opportunity to demonstrate the skill-based competencies required by CEC Standards and to qualify for the multi-categorical teaching license.

Pre-req: CISP 520 and CISP 553 and CISP 645 and CISP 647.

Grade Mode: Credit/No Credit Grade Only

CISP 660 Grant Writing Sp Ed**3 Credit hours**

Grade Mode: Normal Grading Mode

CISP 661 Intro Preschool Sp Ed**3 Credit hours**

An overview of early childhood special education programs including historical events, legislation, the population served, program models and components and current issues and trends.

Grade Mode: Normal Grading Mode

CISP 662 Instruct Char of Autism**3 Credit hours**

This online course provides information on evidence-based practices used to teach students with autism spectrum disorder (ASD). The course is the second in a two-course sequence that leads to the WV Autism Teaching Endorsement (PR: CISP 527). A lecture-discussion course, designed to provide students with an understanding of the learning characteristics of autistic children and research-based instructional techniques for teaching and managing behavior. (PR: CI 427 or 527)

Pre-req: CISP 527 or CI 527 or CISP 527E.

Grade Mode: Normal Grading Mode

CISP 663 Dev Issue Preschool Hand**3 Credit hours**

An examination of the normal development of young children, the interrelated effects of impairment in various areas of development and strategies for intervention.

Grade Mode: Normal Grading Mode

CISP 664 Practicum in Autism**3 Credit hours**

This course contains two components: A competency-based practicum experience with students with autism spectrum disorders (ASD) and a seminar with regular discussion and readings on practical issues concerning the education of students with ASD.

Pre-req: CISP 527 or CI 527 and CISP 662 or CI 662.

Grade Mode: Normal Grading Mode

CISP 665 Assess Preschool Sp Ed**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CISP 666 Curr/Meth Preschool Sp Ed**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CISP 673 Field Exp Preschool Sp Ed**3 Credit hours**

Grade Mode: Credit/No Credit Grade Only

CISP 674 Clinical: Preschool Special Ed**3 Credit hours**

Clinical Preschool Special Education. 3 hrs. Emphasis on infants and toddlers identified as at-risk or with special needs. Clinical field observations of practitioners (developmental specialists/service coordinator) and service providers are required.

Grade Mode: Credit/No Credit Grade Only

Curriculum & Instruction (CI)

CI 501 Middle Childhood Curric 3 Credit hours

The study of procedures for creating a functional middle childhood curriculum with emphasis upon the needs of middle childhood learners.

Grade Mode: Normal Grading Mode

CI 503 Meth Teach Mid Child Grd 3 Credit hours

Study of methods appropriate for teaching in the middle childhood grades and the production and utilization of materials and resources in these grades. Middle school clinical experience is required.

Grade Mode: Normal Grading Mode

CI 509 Rdng Recvry-Theoretical Concrn 6 Credit hours

Grade Mode: Normal Grading Mode

CI 511 Analysis Teach Early Yrs 2 Credit hours

The analysis and appraisal of teaching strategies employed in the teaching of young children.

Grade Mode: Normal Grading Mode

CI 515 Int Meth & Mat: Sec Ed 3 Credit hours

General scaondary/middle school course with emphasis on instructional standards and objectives, methods, and materials of the disciplines. A clinical experience provides observation and teaching.

Co-req: EDF 537

Grade Mode: Normal Grading Mode

CI 517 Classroom Discipline Tech 3 Credit hours

Identification of common classroom discipline problems and techniques for dealing with behavioral incidents in school settings K-12.

Grade Mode: Normal Grading Mode

CI 527 Introduction to Autism 3 Credit hours

This is a lecture-discussion course designed to survey current autism, definitions, rates of incidence, conceptual models and educational designs relating to autistic children, youth, and adults.

Grade Mode: Normal Grading Mode

CI 542 Instr & Clrm Mgt in Elem Ed 3 Credit hours

This course allows elementary education students to critically examine a variety of classroom management strategies and educational issues that impact instruction.

Grade Mode: Normal Grading Mode

CI 549 Instr & Clrm Mgt Sec Ed 3 Credit hours

Classroom management with an emphasis on practical techni- ques for dealing with management problems in secondary and middle school settings.

Grade Mode: Normal Grading Mode

CI 551 Writing to Learn/Content Area 3 Credit hours

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.

Grade Mode: Normal Grading Mode

CI 552 WV Writing Project 3-6 Credit hours

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.

Grade Mode: Normal Grading Mode

CI 559 Multicult Influence in Ed 3 Credit hours

Multicultural education with an emphasis on methods and materials for teaching students from diverse cultural backgrounds.

Grade Mode: Normal Grading Mode

CI 560 Staff Development 1-4 Credit hours

Courses and activities designed to meet the specific in- service need of public school personnel. Credit in these courses may be used for certificate renewal and salary up- grading if approved but not in degree programs.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CI 561 Staff Development 1-4 Credit hours

Courses and activities designed to meet the specific in- service need of public school personnel. Credit in these courses may be used for certificate renewal and salary up- grading if approved but not in degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CI 562 Staff Development 1-4 Credit hours

Courses and activities designed to meet the specific in- service needs of public school personnel. Credit in these courses may be used for certificate renewal and salary up- grading if approved but not in degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CI 563 Staff Development 1-4 Credit hours

Courses and activities designed to meet the specific in- service needs of public school personnel. Credit in these courses may be used for certificate renewal and salary up- grading if approved but not in degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CI 564 Staff Development 1-4 Credit hours

Courses and activities designed to meet the specific in- service needs of public school personnel. Credit in these courses may be used for certificate renewal and salary up- grading if approved but not in degree programs. CR/NC grading.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

CI 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CI 581 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CI 582 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CI 583 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CI 584 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

CI 585 Independent Study 1-4 Credit hours

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.

Grade Mode: Normal Grading Mode

CI 586 Independent Study 1-4 Credit hours

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.

Grade Mode: Normal Grading Mode

- CI 587 Independent Study** **1-4 Credit hours**
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.
Grade Mode: Normal Grading Mode
- CI 588 Independent Study** **1-4 Credit hours**
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.
Grade Mode: Normal Grading Mode
- CI 591 Workshop** **1-4 Credit hours**
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.
Grade Mode: Normal Grading Mode
- CI 592 Workshop** **1-4 Credit hours**
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.
Grade Mode: Normal Grading Mode
- CI 593 Workshop** **1-4 Credit hours**
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.
Grade Mode: Normal Grading Mode
- CI 594 Workshop** **1-4 Credit hours**
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.
Grade Mode: Normal Grading Mode
- CI 600 Grant Writing Special Ed** **3 Credit hours**
A review of the federal and state guidelines for writing grants in Special Education. The priority areas of special education in which monies are currently available will also be examined.
Grade Mode: Normal Grading Mode
- CI 601 Psych Found Giftedness** **3 Credit hours**
A study of measures used to identify the gifted and interpretation of results, psychological development of the gifted and psychological pressures, problems and adjustments strategies toward mental health in the gifted child.
Grade Mode: Normal Grading Mode
- CI 602 Education Gifted Children** **3 Credit hours**
Educational models, identification techniques, teaching strategies and resources available for gifted children. Current trends in curriculum development for the gifted are also examined.
Grade Mode: Normal Grading Mode
- CI 603 Field Experience: Gifted** **3 Credit hours**
Supervised experiences (one semester) in field work with children who exhibit potential giftedness.
Grade Mode: Satisfactory/Unsatisfactory
- CI 604 Pract Emotional Disturb** **3 Credit hours**
An initial participation and observation experience with children experiencing behavior problems. Course evolves around bi-weekly seminar and selected projects.
Grade Mode: Satisfactory/Unsatisfactory
- CI 609 Curric Modern Elem School** **3 Credit hours**
Examination of traditional and current assumptions underlying the modern elementary school curriculum with emphasis on converting theoretical bases into plans for curriculum change and modernization.
Grade Mode: Normal Grading Mode
- CI 610 Curric Modern Sec School** **3 Credit hours**
Analysis of the social and political factors which affect secondary school curriculum and emphasis upon trends and developments in high schools today.
Grade Mode: Normal Grading Mode
- CI 611 Special Education Research I** **3 Credit hours**
Grade Mode: Normal Grading Mode
- CI 613 Rdg Mth K-8 Lit Skill Dev** **3 Credit hours**
An examination of teaching methods and of children's literature that are conducive to promoting permanent interests, skills, and interests in reading for ECC and MCE.
Grade Mode: Normal Grading Mode
- CI 614 Rdg 9-Adult Lit Skill Dev** **3 Credit hours**
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.
Grade Mode: Normal Grading Mode
- CI 615 Special Education Research II** **3 Credit hours**
Grade Mode: Normal Grading Mode
- CI 618 Inform Learn Prim Mid Sch** **3 Credit hours**
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.
Grade Mode: Normal Grading Mode
- CI 619 Rdg Ldship Roles & Respon** **3 Credit hours**
Analysis of administrators/supervisor's roles, responsibilities, problems, and practices in reading program.
Grade Mode: Normal Grading Mode
- CI 621 Curr Issues Prob Reading** **3 Credit hours**
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.
Pre-req: CI 643.
Grade Mode: Normal Grading Mode
- CI 623 Instruct Models Assess Tech** **3 Credit hours**
Selected teaching models are analyzed with implications for the role of the teacher; assessment of influences of the teacher.
Grade Mode: Normal Grading Mode
- CI 624 Adv Instruction Strategy** **3 Credit hours**
Performance-based laboratory experiences in a micro-teaching laboratory development of a personalized teaching repertoire. (PR: CI 515 or permission)
Pre-req: CI 515.
Grade Mode: Normal Grading Mode
- CI 626 Diagnostic-Clinical Pract** **3 Credit hours**
Team approach to diagnosis and treatment of exceptional children.
Grade Mode: Normal Grading Mode

- CI 627 Program Plan and Evaluation** **3 Credit hours**
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.
Grade Mode: Normal Grading Mode
- CI 629 Special Education Seminar** **3 Credit hours**
Research methods and current significant findings in special education. Guest speakers. Advanced special education students only.
Grade Mode: Normal Grading Mode
- CI 630 Practicum Early Childhood Ed** **1-3 Credit hours**
Supervised experience in teaching pre-kindergarten and/or kindergarten. Supervised experience in teaching kindergarten with a concurrent seminar in organization and administration.
Grade Mode: Satisfactory/Unsatisfactory
- CI 631 Curr Influ Early Child Ed** **3 Credit hours**
A study of recent findings in the behavioral sciences and their implications for early childhood education.
Grade Mode: Normal Grading Mode
- CI 632 Early Childhood Programs** **3 Credit hours**
An examination of past and present programs for young children with opportunity provided for curriculum development.
Grade Mode: Normal Grading Mode
- CI 633 Adult Involve in Early Ed** **3 Credit hours**
Ways of communicating and involving paraprofessionals, parents, volunteers, staff in the education of young children.
Grade Mode: Normal Grading Mode
- CI 634 Lang/Cog Early Childhood** **3 Credit hours**
Examination of selected studies in language acquisition and cognitive development of children from birth to eight years of age.
Grade Mode: Normal Grading Mode
- CI 636 Modern Devel Reading Prog** **3 Credit hours**
Principles and practices of teaching developmental reading.
Grade Mode: Normal Grading Mode
- CI 637 Diag & Corr Read Diff Part I** **3 Credit hours**
Study and the causes of reading difficulties, diagnostic devices and techniques, and remedial methods and materials.
Pre-req: CI 636 and (CI 644 or CIRG 644).
Grade Mode: Normal Grading Mode
- CI 638 Curriculum Planning** **3 Credit hours**
A study of the fundamental skills needed to evaluate educational progress at the classroom, program, and school levels.
Grade Mode: Normal Grading Mode
- CI 639 Supervising Reading Prog** **3 Credit hours**
This course is designed as an in-depth study and analysis of the planning and organizing of reading programs at various administrative levels.
Pre-req: CI 643.
Grade Mode: Normal Grading Mode
- CI 640 Literature** **1-3 Credit hours**
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.
Grade Mode: Normal Grading Mode
- CI 641 Seminar** **1-6 Credit hours**
A guided program of readings, reports and discussions. No student may register for this course a second time.
Grade Mode: Normal Grading Mode
- CI 642 Special Needs in Reading** **3 Credit hours**
Study of research findings, methodology and instructional materials for atypical learners, illiterate adults and others.
Grade Mode: Normal Grading Mode
- CI 643 Prac Diag Corr Read Diff** **3 Credit hours**
Clinical experiences in the diagnosis and corrective treatment of reading disabilities.
Pre-req: CI 637.
Grade Mode: Normal Grading Mode
- CI 644 Teaching Content Reading** **3 Credit hours**
Principles underlying the teaching of reading in the content fields.
Grade Mode: Normal Grading Mode
- CI 645 Ed of Emotional Disturb** **3 Credit hours**
Recognition of emotional-social, disturbances, assessment of educational needs, establishment of programs to implement behavioral change and provide necessary modification in educational programs to remediate learning and behavioral difficulties of children.
Grade Mode: Normal Grading Mode
- CI 646 Field Exp Learn Disability** **3 Credit hours**
Supervised experiences of one semester in field work with children or youth who exhibit symptoms of problems in learning.
Pre-req: (CI 523 and CI 647).
Grade Mode: Satisfactory/Unsatisfactory
- CI 647 Ed Of Learning Disabled** **3 Credit hours**
Theories, diagnosis, and teaching strategies concerning children who exhibit symptoms of any or several learning disabilities.
Grade Mode: Normal Grading Mode
- CI 648 Field Exp Phys Handicap** **3 Credit hours**
Teaching under supervision in cooperating public schools.
Pre-req: CI 520 and CI 529.
Grade Mode: Satisfactory/Unsatisfactory
- CI 649 Field Exp Emotion Disturb** **3 Credit hours**
Supervised field experiences (one semester) working with children who exhibit symptoms of emotional disturbances- behavioral disorders.
Pre-req: CI 524 and CI 645.
Grade Mode: Satisfactory/Unsatisfactory
- CI 650 Sp Ed Evaluate Teach Tech** **3 Credit hours**
Educational assessment and diagnostic evaluation for remediation- amelioration; advanced course for providing understanding and utilization of evaluation, teacher assessment, and analysis for programming for exceptional individuals.
Pre-req: CI 626.
Grade Mode: Normal Grading Mode
- CI 651 Field Exp Mental Retard** **3 Credit hours**
All-day supervised teaching in special classes in the public schools required of all students who are completing curriculum for teachers of mentally retarded children.
Pre-req: CI 533 and CI 553.
Grade Mode: Satisfactory/Unsatisfactory

- CI 653 Literacy Acquisition** **3 Credit hours**
 Literacy Acquisition is a foundation course in the Reading Program open to professionals whose interest require understanding of the process involved in becoming literate.
Grade Mode: Normal Grading Mode
- CI 656 Teaching Language Arts** **3 Credit hours**
 A unified Reading-Language instructional approach to develop a basic understanding of reading-language related principles derived from disciplines, research, and innovation classroom practices.
Grade Mode: Normal Grading Mode
- CI 657 Adv Tchg Elem/Mdle Sch Math** **3 Credit hours**
 Historical, social, psychological, and philosophical foundations of mathematics education; investigation of current trends and issues in contemporary programs.
Grade Mode: Normal Grading Mode
- CI 659 Symposium Elem/Sec Ed I** **3 Credit hours**
 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)
Grade Mode: Credit/No Credit Grade Only
- CI 660 Computers in Instruction** **3 Credit hours**
 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.
Grade Mode: Normal Grading Mode
- CI 661 Intro Preschool Sp Ed** **3 Credit hours**
 An overview of early childhood special education programs including historical events, legislation, the population served, program models and components and current issues and trends.
Grade Mode: Normal Grading Mode
- CI 662 Instruct Char Of Autism** **3 Credit hours**
 A lecture-discussion course, designed to provide students with an understanding of the learning characteristics of autistic children and research-based instructional techniques for teaching and managing behavior.
Pre-req: CI 527.
Grade Mode: Normal Grading Mode
- CI 663 Dev Issue Preschool Hand** **3 Credit hours**
 An examination of the normal development of young children, the interrelated effects of impairment in various areas of development and strategies for intervention.
Grade Mode: Normal Grading Mode
- CI 664 Practicum in Autism** **3 Credit hours**
 This course contains two components: a competency-based practicum experience with autistic students and a seminar with regular discussions and readings on practical issues concerning the education of autistic children.
Pre-req: CI 662 and CI 527.
Grade Mode: Normal Grading Mode
- CI 665 Assess Preschool Sp Ed** **3 Credit hours**
 An overview of issues in the identification, screening and assessment of young children with special needs, specific assessment techniques for working with families and interdisciplinary teams in the assessment process. (PR: CI 663)
Grade Mode: Normal Grading Mode
- CI 666 Curr/Meth Preschool Sp Ed** **3 Credit hours**
 A review of curriculum development and methodology used to teach young children with special needs. Evaluation techniques, program development and management, adaptation of materials and equipment and program models are presented. (PR: CI 665)
Grade Mode: Normal Grading Mode
- CI 670 Adv Tchg Elem/Mdle Sch SOS** **3 Credit hours**
 Materials and procedures for teaching social studies with emphasis on a survey of successful programs of instruction.
Grade Mode: Normal Grading Mode
- CI 671 Adv Tchg Elem/Mdle Sch Science** **3 Credit hours**
 Intensive concentration on helping children inquire into the earth, physical, and biological sciences through modern methods and media.
Grade Mode: Normal Grading Mode
- CI 672 Practicum in Education** **3-6 Credit hours**
 Clinical Experience: Directed activity in a clinical setting.
Grade Mode: Credit/No Credit Grade Only
- CI 673 Field Ex Preschool Sp Ed** **3 Credit hours**
 Supervised participation and directed teaching activities in an early childhood special education program across ages, disabilities and severity levels. Activities with normally developing preschoolers are also required. (PR: CI 666)
Grade Mode: Satisfactory/Unsatisfactory
- CI 674 Practicum Preschool Sp Ed** **3 Credit hours**
 Supervised teaching in a variety of early childhood special education programs across ages, disabilities, and severity levels. Experiences with normally developing preschoolers are required. Specific competencies will be individually determined.
Grade Mode: Satisfactory/Unsatisfactory
- CI 675 Curriculum Theory** **3 Credit hours**
 Analysis of the assumptions undergirding curriculum development.
Grade Mode: Normal Grading Mode
- CI 676 Program Evaluation** **1-3 Credit hours**
 An examination of program evaluation models and techniques for instructional supervisors.
Grade Mode: Normal Grading Mode
- CI 677 Writing Publicatn Prof Ed** **3 Credit hours**
 For professional educators and students who wish to study and practice writing articles for publication in scholarly journals in the field of education.
Grade Mode: Normal Grading Mode
- CI 678 The Supervising Teacher** **3 Credit hours**
 Duties and responsibilities of the teacher who supervises student teachers.
Grade Mode: Normal Grading Mode
- CI 679 Classrm Mgt Elem Teachers** **3 Credit hours**
 This course is designed for elementary teachers. The content includes methods of managing the physical and social environment in the classroom.
Grade Mode: Normal Grading Mode
- CI 680 Symposium Elem/Sec Ed II** **3 Credit hours**
 The comprehensive assessment requirement is met within the framework of this course. (PR: Consent.)
Grade Mode: Satisfactory/Unsatisfactory

CI 681 Thesis**1-6 Credit hours**

Students completing 681 must defend their thesis in an oral examination.

Grade Mode: Normal Grading Mode

CI 690 Capstone Experience**3 Credit hours**

This course is designed as a culminating experience that allows participants to demonstrate professional knowledge and skills related to program experiences.

Grade Mode: Credit/No Credit Grade Only

CI 701 Curriculum Development**3 Credit hours**

To review Curriculum Development and Planning from the historic perspective, the four bases of curriculum and the interpretation into the assumptions that can be translated into instructional design. To review Curriculum Development and Planning from the historic perspective, the four bases of curriculum and the interpretation into the assumptions that can be translated into instructional design.

Grade Mode: Normal Grading Mode

CI 702 Curriculum Theories**3 Credit hours**

This course will give the students a basic foundation in the theories and paradigms underlying curriculum from the past, present and future.

Grade Mode: Normal Grading Mode

CI 703 Theory Models & Res. of Teach**3 Credit hours**

It is the intent of this course to analyze and synthesize the historical development as it correlates to the development of curriculum and ultimately has implication on instructional design. Besides behaviorism, cognitivism, and constructivism, this course will discuss humanism, brain-based learning, developmental appropriateness, multiple intelligence and thinking styles.

Grade Mode: Normal Grading Mode

CI 704 Soc Cult Pol Determ Curr**3 Credit hours**

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)

Grade Mode: Normal Grading Mode

CI 705 Higher Education Curriculum**3 Credit hours**

This course is an introduction to the development and management of the curriculum in higher education institutions.

Grade Mode: Normal Grading Mode

CI 706 Multicultural/Diversity Issues**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

CI 707 Curriculum Change**3 Credit hours**

This course will explore current developments in curriculum transformation and change theory. This course will examine the impact of change theory on curriculum development.

Grade Mode: Normal Grading Mode

CI 780 Special Topics in Curr/Inst**1-9 Credit hours**

This course requires study, reading and research in an advisor/chair approved area of curriculum and instruction. This course limited to Ed.D and Ed.S. students.

Grade Mode: Normal Grading Mode

CI 797 Curr & Inst Dissertation Res**1-12 Credit hours**

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. First Term Offered: Spring 2004)

Grade Mode: Credit/No Credit Grade Only

Cyber Forensics and Security (CFS)

CFS 505 OSINT Practicum I**3 Credit hours**

Students will learn how to use advanced tools that can aid investigators in searching the Internet and resources that can be applied to domestic and international investigations.

Grade Mode: Normal Grading Mode

CFS 520 Incident Response**3 Credit hours**

Course examines forensic and investigate aspects of incident response. Topics include pre-incident preparation, developing leads, scoping an incident, data collection, forensic duplication, evidence from hosts, networks, application and enterprise environments.

Grade Mode: Normal Grading Mode

CFS 545 Mobile and Web Pen**3 Credit hours**

Students will learn advanced techniques, tools and frameworks used for Mobile and Web Penetration and Attack.

Grade Mode: Normal Grading Mode

CFS 581 Special Topics**3 Credit hours**

Study of emerging and advanced topics in Cyber Forensics and Security. Topics vary with instructor and change from one semester to another.

Grade Mode: Normal Grading Mode

CFS 630 Cyber Threat Intelligence**3 Credit hours**

A detailed study of the cyber threat intelligence process and its products. Topics include threat modeling, structured analysis, adversary groups, tactical, operations, and strategic threat intelligence.

Grade Mode: Normal Grading Mode

CFS 660 Red Team**3 Credit hours**

Students will learn how to plan and execute and end-to-end adversary emulation and build a red team program, leverage threat intelligence to map against adversary tactic and tool automation.

Grade Mode: Normal Grading Mode

CFS 675 Thesis**1-6 Credit hours**

Students will plan, implement, research and present a solution to a real-world problem within cyber forensics & defense, demonstrating their technical and professional skills. Must be pre-approved before registering.

Grade Mode: Normal Grading Mode

CFS 680 Special Topics**3 Credit hours**

Grade Mode: Normal Grading Mode

Dietetics (DTS)

DTS 580 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

DTS 581 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

DTS 585 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

DTS 586 Independent Study**1-4 Credit hours****Grade Mode:** Normal Grading Mode**DTS 670 Adv Med Nutrition Therapy I****3 Credit hours**

Pathophysiology, medical nutrition therapy, and current research of common and unique disease states and conditions.

Grade Mode: Normal Grading Mode**DTS 671 Sports Nutrition****3 Credit hours**

An in-depth investigation of sports nutrition, with emphasis on nutrient functions and their roles in physical activity as well as nutrition counseling strategies for athletes.

Grade Mode: Normal Grading Mode**DTS 672 Diabetes & Nutrition Mngt****3 Credit hours**

In-depth investigation of diabetes mellitus, including disease state, types, diagnosis and treatment options, medications to treat, exercise, complications, and medical nutrition therapy and counseling strategies.

Grade Mode: Normal Grading Mode**DTS 673 Administrative Dietetics****3 Credit hours**

Overview of management/administrative concepts for directing resources within a variety of food and nutritional service/ programs. Planning, implementing, and evaluation techniques to measure organizational performance. Applied research in dietetics. (PR: Dietetic Internship Students or permission)

Grade Mode: Normal Grading Mode**DTS 674 Food Allergies & Intoler****3 Credit hours**

Advanced study of food allergies and intolerances and the roles of nutrition in food allergy prevention and lifestyle management.

Grade Mode: Normal Grading Mode**DTS 675 Dietetic Internship I****3 Credit hours**

Supervised practice experience focusing on the nutritional screening assessment and education of individuals and groups across the lifespan in a variety of community and long-term settings.

Grade Mode: Normal Grading Mode**DTS 676 Dietetic Internship II****3 Credit hours**

Supervised practice experience focusing on the procurement, production, distribution, and service within school and hospital based food service management systems.

Pre-req: DTS 675.**Grade Mode:** Normal Grading Mode**DTS 677 Dietetic Internship III****3 Credit hours**

Supervised practice experience focusing on skills required to become a dietitian in a clinical setting. Nutritional screening assessment and education of individuals with complex medical conditions will be emphasized.

Pre-req: DTS 676.**Grade Mode:** Normal Grading Mode**DTS 679 Adv Med Nutrition Therapy II****3 Credit hours**

The continued study of pathophysiology, medical nutrition therapy, and current research of common and unique disease states and conditions.

Pre-req: DTS 670.**Grade Mode:** Normal Grading Mode**DTS 681 Thesis****1-6 Credit hours****Grade Mode:** Normal Grading Mode**DTS 690 Sem DTS Research Comm****1-4 Credit hours**

Extensive reading and reports from current literature in selected areas of dietetics.

Grade Mode: Normal Grading Mode

Doctor-Business Administration (DBA)

DBA 701 Res Bus & Econ Dev**3 Credit hours**

This course describes key business and economic research issues. It shows how matters such as jobs, unemployment, policymaking, budget, taxes, and public investment apply to business research and practice.

Grade Mode: Normal Grading Mode**DBA 702 Cur Research Bus Innovation****3 Credit hours**

Students will be introduced to contemporary research and pedagogical topics in business innovation including design thinking, disruptive innovation, corporate innovation, and the pedagogy of business innovation.

Grade Mode: Normal Grading Mode**DBA 703 Cur Research Issues Bus Tech****3 Credit hours**

This course covers research topics related to business technology including investments, strategy, economic value, cybersecurity, privacy, adoption, diffusion, and development methods. Students will explore the academic literature in this area.

Grade Mode: Normal Grading Mode**DBA 704 Research Global & Intl Bus****3 Credit hours**

Students are exposed to key topics in global and international business. They will investigate academic research on multinationalism, global competition and strategic management, and global marketing to develop research questions.

Grade Mode: Normal Grading Mode**DBA 705 Ped in Bus Schools****3 Credit hours**

This course focuses on pedagogical practices in business schools including both traditional and innovative teaching methods. Students will understand effective teaching and learning practices in business schools.

Grade Mode: Normal Grading Mode**DBA 710 Bus Research Design Method****3 Credit hours**

Students will be introduced to business research designs, including exploratory, descriptive, casual, experimental, case study, cross-sectional, and longitudinal research designs. Students will be exposed to both quantitative and qualitative methods.

Grade Mode: Normal Grading Mode**DBA 711 Bus Quant Methods I****3 Credit hours**

This course covers techniques and applications of regression analysis and ANOVA models using statistical software. Students will apply the methods to real world problems and making valid statistical conclusions.

Grade Mode: Normal Grading Mode**DBA 712 Bus Quant Method II****3 Credit hours**

The purpose of this course is to familiarize students with conceptual bases of SEM as well as applications necessary to undertake doctoral-level research and to answer questions of casual interest.

Grade Mode: Normal Grading Mode

DBA 713 Bus Quant III**3 Credit hours**

This course extends the basic linear model frameworks learned in DBA 711 and 712 to non-linear regressions and non-parametric statistical tools and data-driven techniques.

Grade Mode: Normal Grading Mode

DBA 714 Qual Methods**3 Credit hours**

This course introduces major qualitative approaches in business research including case study research, ethnography, narrative inquiry, discourse analysis, grounded theory, text analysis, and action research.

Grade Mode: Normal Grading Mode

DBA 720 Research Sem in Man Acct**3 Credit hours**

This course includes a study of managerial accounting research topics and methods. Students will review and critically analyze research articles on budgeting, performance measures, enterprise risk management, innovation, and methodologies.

Grade Mode: Normal Grading Mode

DBA 721 Research Sem in Audit**3 Credit hours**

Seminal and contemporary research articles on the audit environment, auditor decision making, auditor independence, the effects of auditing on the financial reporting process, and auditor fees will be introduced.

Grade Mode: Normal Grading Mode

DBA 722 Research Sem in Fin Acct**3 Credit hours**

Students in this course will learn to critically analyze financial accounting research to identify potential areas for future study that can advance the current body of knowledge.

Grade Mode: Normal Grading Mode

DBA 730 Research Sem in HC Delivery**3 Credit hours**

This course studies health care delivery research topics. Students will review and critically analyze literature on integrated health care delivery systems, clinical effectiveness, innovative technologies, workforce issues, and other topics.

Grade Mode: Normal Grading Mode

DBA 731 Res Mgr Epidemiology**3 Credit hours**

This course provides insight into research topics that explore managerial epidemiology including disease control and transmission; population health measurement; planning and quality management; incidence, prevalence, morbidity, and mortality; and others.

Grade Mode: Normal Grading Mode

DBA 732 Res Sem HC Inform Mgt**3 Credit hours**

This course addresses contemporary research issues in health care information management research. Research relating to electronic health records, data analytics, safety, privacy, and health information technology will be discussed.

Grade Mode: Normal Grading Mode

DBA 740 Research Sem HRM**3 Credit hours**

This seminar is a review and analysis of the theories, models, and concepts utilized in the research of organizational behavior and human resource management.

Grade Mode: Normal Grading Mode

DBA 741 Res Op Bus Models & Strat**3 Credit hours**

This course addresses issues in operations, business models, and strategic management with extensive reviews of research areas such as sustainable operations, strategic positioning, organizational structure and performance, and corporate governance.

Grade Mode: Normal Grading Mode

DBA 742 Res Sem in Entr, Sm Bus, & FF**3 Credit hours**

Students in the seminar will study seminal and current research on the idiosyncratic nature of entrepreneurship, small business, and family firms. They will discuss theory and make connections among findings.

Grade Mode: Normal Grading Mode

DBA 790 Dissertation Design**3-6 Credit hours**

This course is an individualized scholarly investigation of an important topic in business. It prepares students for the dissertation process and focuses on issues such as dissertation committee selection.

Grade Mode: Credit/No Credit Grade Only

DBA 791 Dissertation**9-18 Credit hours**

Coursework supports and guides doctoral candidates in their research and the development and defense of the dissertation. The course provides individual time with members of the student's dissertation committee.

Grade Mode: Credit/No Credit Grade Only

Early Childhood Education (ECE)

ECE 530 Preschool Curriculum/Methods**3 Credit hours**

Historical and contemporary curriculum and methods for preschool children with emphasis on current best practices.

Grade Mode: Normal Grading Mode

ECE 535 Adm Early Child Programs**3 Credit hours**

This course examines the administration and educational aspects of early childhood education programs. Classroom observation is required.

Grade Mode: Normal Grading Mode

Economics (ECN)

ECN 501 Economic Analysis**3 Credit hours**

A survey of essential economics principles and techniques, including both microeconomic and macroeconomics topics. For students who have not had a two semester principles of economics sequence as undergraduates.

Grade Mode: Normal Grading Mode

ECN 515 Regional Economics**3 Credit hours**

A study of location theory and regional development within a framework of economic theory.

Grade Mode: Normal Grading Mode

ECN 561 Economic Educ Workshop**3 Credit hours**

Intensive review of subject matter and teaching methods in economics for elementary and high school teachers.

Grade Mode: Normal Grading Mode

ECN 580 Special Topics**1-4 Credit hours**

Members of the department may teach, when necessary, any economics subject not listed among the current course offerings.

Grade Mode: Normal Grading Mode

ECN 630 Managerial Economics**3 Credit hours**

Utilization of microeconomic theory and optimization techniques for management decision making.

Pre-req: (MGT 601 or MGT 500) and ECN 501.

Grade Mode: Normal Grading Mode

ECN 650 Special Topics 1-3 Credit hours

Members of the department may teach, when necessary, any economics subject not listed among current course offerings.

Grade Mode: Normal Grading Mode

ECN 651 Special Topics 1-3 Credit hours

Members of the department may teach, when necessary, any economics subject not listed among current course offerings.

Grade Mode: Normal Grading Mode

ECN 660 Independent Study 1-4 Credit hours

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)

Grade Mode: Normal Grading Mode

ECN 681 Thesis 3-6 Credit hours

(PR: Permission of division head and full M.B.A. admissions)

Grade Mode: Normal Grading Mode

ECN 699 Bus Policy & Strategy 3 Credit hours

Study of administrative decisions making under conditions of uncertainty. Policy construction at top administrative level with emphasis on strategy with consideration of major functions of the business organization.

Grade Mode: Normal Grading Mode

Educational Foundations (EDF)

EDF 502 Psy Mid Childhood Student 3 Credit hours

A course in the study of developmental principals relating to the physical, cognitive, social, and moral development of the middle childhood student 10-14 years old.

Grade Mode: Normal Grading Mode

EDF 513 Human Growth Dev Birth-8 Yr 3 Credit hours

This course examines the relationship between developmental principles in childhood and educational practice.

Grade Mode: Normal Grading Mode

EDF 514 Human Growth Dev Adolescence 3 Credit hours

This course examines the relationship between developmental principles in adolescence and educational practice.

Grade Mode: Normal Grading Mode

EDF 515 History Modern Education 3 Credit hours

Our debt to the ancient Hebrews, Greeks, and Romans. Emphasis also is placed upon the movements since the beginning of the Renaissance.

Grade Mode: Normal Grading Mode

EDF 537 MAT Level I Clinical Exper 0 Credit hours

Thirty-five hours 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: CI 515)

Co-req: CI 515

Grade Mode: Credit/No Credit Grade Only

EDF 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

EDF 581 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

EDF 582 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

EDF 583 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

EDF 585 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

EDF 586 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

EDF 587 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

EDF 588 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

EDF 610 Trends & Issues in Education 3 Credit hours

An investigation of current trends and issues in education through extensive reading, research and discussion. Implications for schools, classrooms, and teachers are the focus of the course.

Grade Mode: Normal Grading Mode

EDF 612 Educational Evaluation 3 Credit hours

A study of the fundamental skills needed to evaluate educational progress at the individual, classroom, program, and school levels.

Grade Mode: Normal Grading Mode

EDF 615 Hist of Education in US 3 Credit hours

Development of public and private educational systems in the United States.

Grade Mode: Normal Grading Mode

EDF 616 Adv Studies Human Develop 3 Credit hours

The nature of human growth and development from infancy to adulthood.

Grade Mode: Normal Grading Mode

EDF 617 Multiple Regression 3 Credit hours

A first course in Multiple Regression Analysis and its application to educational research. (PR: EDF 517 or Equivalent)

Grade Mode: Normal Grading Mode

EDF 618 Multilevel Analysis 3 Credit hours

An introduction to applied multilevel analysis and growth curve modeling for nested educational data. The nested data may have a repeated measures dependent variable.

Grade Mode: Normal Grading Mode

EDF 619 Educational Psychology 3 Credit hours

Study of learning theories and their applications to teaching.

Grade Mode: Normal Grading Mode

EDF 620 Mixed Methods Research 3 Credit hours

Integrates quantitative and qualitative approaches and applications to research, couching these models within developing theories for and approaches to mixed methods research in education and closely related fields.

Grade Mode: Normal Grading Mode

EDF 621 Educ Research & Writing 3 Credit hours

Research methods and techniques and their application.

Grade Mode: Normal Grading Mode

EDF 625 Qualitative Research Educ 3 Credit hours

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.

Grade Mode: Normal Grading Mode

EDF 630 Comparative Education 3 Credit hours

The study of the origins, nature, scope, basic literature and methodology of comparative education.

Grade Mode: Normal Grading Mode

EDF 635 Policy Studies in Education 3 Credit hours

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.

Grade Mode: Normal Grading Mode

EDF 636 Advanced Classroom Assessment 3 Credit hours

History, philosophy and advanced statistical methods for testing, measuring and evaluating pupil behavior are studied.

Grade Mode: Normal Grading Mode

EDF 637 MAT Level II Clinical Experience 0 Credit hours

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 and CI 515)

Pre-req: EDF 537 and CI 515.

Grade Mode: Credit/No Credit Grade Only

EDF 640 Literature 1-3 Credit hours

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.

Grade Mode: Normal Grading Mode

EDF 641 Seminar 2-3 Credit hours

A guided program of readings, reports and discussions. No student may register for this course a second time.

Grade Mode: Normal Grading Mode

EDF 660 Philosophy of Education 3 Credit hours

Surveys basic philosophy schools and concepts and their application to educational practice.

Grade Mode: Normal Grading Mode

EDF 665 Sociology of American Schools 3 Credit hours

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.

Grade Mode: Normal Grading Mode

EDF 676 Statistical Methods 3 Credit hours

A foundation course in descriptive and inferential statistics as applied in education and the social sciences.

Grade Mode: Normal Grading Mode

EDF 677 MAT Level III Clinical Experience 3-9 Credit hours

Culminating clinical experience through directed activity in a clinical setting for MAT/PBC student.

Pre-req: EDF 537 and EDF 637.

Grade Mode: Credit/No Credit Grade Only

EDF 679 Problem Report 1-3 Credit hours

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.

Grade Mode: Normal Grading Mode

EDF 681 Thesis 3-6 Credit hours

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 thesis in an oral examination.

Grade Mode: Normal Grading Mode

EDF 703 Research Design 3 Credit hours

The purpose of this doctoral research methods course is to prepare College of Education doctoral students to design and carry out research at the doctoral level (PR: Admission to EdD Program)

Grade Mode: Normal Grading Mode

EDF 711 Survey Research in Education 3 Credit hours

Advanced research, theories, methods and procedures for conducting survey research in education.

Grade Mode: Normal Grading Mode

EDF 719 Intro to Doctoral Studies 3 Credit hours

This course is designed to introduce students to the tasks and processes involved in the completion of the doctoral requirements (PR: Admission to the Cooperative Doctoral Program)

Grade Mode: Normal Grading Mode

EDF 725 Advanced Qualitative Research 3 Credit hours

Advanced study of selected topics in qualitative research. Emphasis on application of qualitative research knowledge and skills.

Grade Mode: Normal Grading Mode

EDF 776 Computer Analysis in Doctoral Research 3 Credit hours

This course provides the development of computer-based skills and competencies for applying statistical concepts and procedures when conducting research. (PR: EDF 676 or similar)

Pre-req: EDF 676 or EDF 517.

Grade Mode: Normal Grading Mode

Electrical Engineering (EE)

EE 502 Instrumentation 3 Credit hours

Grade Mode: Normal Grading Mode

EE 503 Power Systems 3 Credit hours

Grade Mode: Normal Grading Mode

EE 504 Principles and Practices-EE 2 Credit hours

Grade Mode: Normal Grading Mode

EE 510 Design Digital Systems 3 Credit hours

This course provides fundamental understanding of Digital circuits. Students learn the essentials of digital circuit operation, design and simulate digital circuits using the techniques of practicing electrical and computer engineers.

Grade Mode: Normal Grading Mode

EE 511 Analog Computation 3 Credit hours

Grade Mode: Normal Grading Mode

EE 514 Linear Systems 3 Credit hours

Grade Mode: Normal Grading Mode

EE 515 Digital Signal Processing 3 Credit hours

Grade Mode: Normal Grading Mode

EE 529 Linear Systems & Control**3 Credit hours**

The course provides a rigorous introduction to the analysis and control of linear dynamical systems in the time domain. The course introduces the fundamentals of linear spaces and linear operator theory.

Grade Mode: Normal Grading Mode**EE 530 Cyber-Physical Systems****3 Credit hours**

This course provides an introduction to modeling and analysis of cyber-physical systems. Several models of continuous-time systems and discrete-time systems are introduced.

Grade Mode: Normal Grading Mode**EE 535 Power System Protection****3 Credit hours**

This course covers the power system faults and application of relays for power system protection. Symmetrical components as applied fault currents. Introduction to digital filtering, microprocessor, computer simulation for relays.

Grade Mode: Normal Grading Mode**EE 585 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**EE 586 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**EE 587 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**EE 588 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**EE 601 Power Systems Analysis****3 Credit hours****Grade Mode:** Normal Grading Mode**EE 602 Random Signals & Noise****3 Credit hours**

This course provides an introduction to the fundamentals of random variables, random signals, and simulation of random phenomena.

Grade Mode: Normal Grading Mode**EE 603 Protective Relaying in Powr Sys****3 Credit hours****Grade Mode:** Normal Grading Mode**EE 604 Electrical Machinery****3 Credit hours****Grade Mode:** Normal Grading Mode**EE 605 Comptr Meth in Power Sys Only****3 Credit hours****Grade Mode:** Normal Grading Mode**EE 606 Electrical Analysis****3 Credit hours**

This course covers Laplace transform for boundary-value problem, applications to control theory, frequency response of ordinary differential equations, linear algebra techniques; eigenvalue analysis of linear systems and in multivariate optimization.

Grade Mode: Normal Grading Mode**EE 607 Adv Electrical Engr****3 Credit hours**

This course covers complex functions, complex integration, vectors, matrices, functions of matrices, Cayley-Hamilton theorem, state-space modeling, optimization techniques, least squares technique, total least squares, and numerical techniques.

Grade Mode: Normal Grading Mode**EE 608 Research Methods****3 Credit hours**

Overview of research methods in engineering. Research theory, design, ethics, and practice. Research plan and proposal. Experimental, numerical, and analytical research. Reviewing literatures, collect and analyze data quantitatively and qualitatively.

Grade Mode: Normal Grading Mode**EE 611 Digital Design****3 Credit hours**

This course covers the CMOS circuits. Design approaches with emphasis placed on structured full custom design, MOS device, critical interconnect and gate characteristics. CMOS logic design from transistor to fabrication.

Grade Mode: Normal Grading Mode**EE 615 Real Time Systems****3 Credit hours**

This course covers the Designing real-time embedded systems from a hardware and software perspective. Communications and signal processing systems. Applications to seismic monitoring, process control, and biomedical systems.

Grade Mode: Normal Grading Mode**EE 618 Data & Comm Networks****3 Credit hours**

This course introduces the underlying concepts behind networking using the internet and its protocols as examples.

Grade Mode: Normal Grading Mode**EE 624 Wireless Communication****3 Credit hours**

This course introduces fundamental technologies for wireless communication.

Grade Mode: Normal Grading Mode**EE 630 Robust Control****3 Credit hours**

Linear systems, norms for signals and systems, stability and performance, uncertainty and robustness, parameterization of stabilizing controllers, algebraic Riccati equations, H2 control, and H infinity control.

Grade Mode: Normal Grading Mode**EE 631 Optimal Control****3 Credit hours**

The course introduces the theory of Optimal Control. It covers evaluation methods for control signals that satisfy some physical constraints and minimize or maximize some performance measures.

Grade Mode: Normal Grading Mode**EE 636 Power System Operation****3 Credit hours**

This course covers modern power systems, operational, control problems, solution techniques. State estimation, contingency analysis, load-frequency control and automatic generation control, load flow analysis and external equivalents for steady-state operations.

Grade Mode: Normal Grading Mode**EE 638 Nonlinear Sys & Control****3 Credit hours**

The course provides a rigorous introduction to the analysis and control of nonlinear dynamical systems in time domain.

Grade Mode: Normal Grading Mode**EE 639 Renew Energy & Dist Generation****3 Credit hours**

This course covers the fundamentals of energy and sustainability; power efficiency; hydro, wind, solar, fuel systems; Converters and controllers for integration of renewable energy sources; Smart grid, hybrid generation systems.

Grade Mode: Normal Grading Mode**EE 642 Pattern Recognition 1****3 Credit hours****Grade Mode:** Normal Grading Mode**EE 643 Pattern Recognition 2****3 Credit hours****Grade Mode:** Normal Grading Mode**EE 650 Special Topics****1-4 Credit hours**

Subject matter to be selected from topics of current interest.

Grade Mode: Normal Grading Mode**EE 651 Special Topics****1-4 Credit hours**

Subject matter to be selected from topics of current interest.

Grade Mode: Normal Grading Mode

EE 652 Special Topics 1-4 Credit hours

Subject matter to be selected from topics of current interest.

Grade Mode: Normal Grading Mode**EE 653 Special Topics 1-4 Credit hours**

Subject matter to be selected from topics of current interest.

Grade Mode: Normal Grading Mode**EE 656 Semiconductr Switchng Circuits 3 Credit hours****Grade Mode:** Normal Grading Mode**EE 658 Linear Syst-State Space Appro 3 Credit hours****Grade Mode:** Normal Grading Mode**EE 661 Continuous & Digital Cntrl Sys 3 Credit hours****Grade Mode:** Normal Grading Mode**EE 681 Microprocessors-Prin & Appl 1 3 Credit hours****Grade Mode:** Normal Grading Mode**EE 682 Microprocessors-Prin & Appl 2 3 Credit hours****Grade Mode:** Normal Grading Mode**EE 683 Microcomputer-Based Design 3 Credit hours**

Surface and subsurface geology, geotechnical properties of soil and rock. Geotechnical engineering design aspects of landfills, groundwater barriers, tunneling. Mechanics of ground movements, sediment and erosion control. (PR: Engine- ering or Geology degree)

Grade Mode: Normal Grading Mode**EE 684 Unknown 3 Credit hours****EE 685 Independent Study 1-4 Credit hours**

Independent study in which a student meets regularly with a faculty member to discuss assignments.

Grade Mode: Normal Grading Mode**EE 686 Independent Study 1-4 Credit hours**

Independent study in which a student meets regularly with a faculty member to discuss assignments.

Grade Mode: Normal Grading Mode**EE 687 Independent Study 1-4 Credit hours**

Independent study in which a student meets regularly with a faculty member to discuss assignments.

Grade Mode: Normal Grading Mode**EE 688 Independent Study 1-4 Credit hours**

Independent study in which a student meets regularly with a faculty member to discuss assignments.

Grade Mode: Normal Grading Mode**EE 690 Special Topics 1-6 Credit hours****Grade Mode:** Normal Grading Mode**EE 698 Design Project 3 Credit hours**

The course introduces the principles of product design: specifications, evaluation of design alternatives, technical reports and oral presentations. Intellectual property, industry standards and conventions, engineering economics, reliability, safety, engineering ethics.

Grade Mode: Normal Grading Mode**EE 699 Thesis 1-6 Credit hours**

This represents the course designation for a Master's Degree Research Thesis. Successful completion of a thesis fulfills the research requirement for the M.S. degree in Electrical Engineering.

Grade Mode: Normal Grading Mode**EE 790 Advanced Independent Study 3 Credit hours**

Emergency Medical Services (EMS)

EMS 710 Emergency Medicine 1-18 Credit hours**Grade Mode:** Pass/Fail Grading Mode**EMS 720 Advanced Cardiac Life Support 1 Credit hour**

ACLS: basic and advanced cardiac life support per American Heart Association Protocol.

Grade Mode: Pass/Fail Grading Mode**EMS 721 Essentials of EKG 1 Credit hour**

To prepare students for ACLS

Grade Mode: Pass/Fail Grading Mode**EMS 744 Required Emergency Medicine 1-18 Credit hours**

This required course will allow students to experience the workings of Emergency Medicine.

Grade Mode: Pass/Fail Grading Mode**EMS 745 Residency Survival Skills 1-18 Credit hours**

To assist graduating students prepare for residency

Grade Mode: Pass/Fail Grading Mode**EMS 780 Elective Special Projects 1 Credit hour****Grade Mode:** Normal Grading Mode**EMS 800 Adv Skills in Clinical Epidemi 1-18 Credit hours****Grade Mode:** Normal Grading Mode**EMS 868 Emergency Med Externship 1-18 Credit hours****Grade Mode:** Pass/Fail Grading Mode**EMS 888 Rural Emergency Medicine 1-18 Credit hours****Grade Mode:** Normal Grading Mode

Engineering & Science (ENGR)

ENGR 502 Microcomputer Wordprocessing 1 Credit hour**ENGR 503 Microcomputer Telecommunicati 1 Credit hour****ENGR 504 Microcomputer Database Appl 1 Credit hour****ENGR 509 Microcomputer Applications 3 Credit hours****ENGR 511 Technical Seminars 3 Credit hours****ENGR 570 Finite Elements 3 Credit hours**

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.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**ENGR 610 Applied Statistics 3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ENGR 620 Computer Applications 3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ENGR 650 Special Topics **1-4 Credit hours**

Formal study of engineering topics of current interest. (PR: Consent)

Grade Mode: Normal Grading Mode

ENGR 651 Special Topics **1-4 Credit hours**

Formal study of engineering topics of current interest. (PR: Consent)

Grade Mode: Normal Grading Mode

ENGR 652 Special Topics **1-4 Credit hours**

Formal study of engineering topics of current interest. (PR: Consent)

Grade Mode: Normal Grading Mode

ENGR 653 Special Topics **1-4 Credit hours**

Formal study of engineering topics of current interest. (PR: Consent)

Grade Mode: Normal Grading Mode

ENGR 670 Advanced Stress Analysis **3 Credit hours**

Three-dimensional stress and strain, failure criteria, advanced topics in structural mechanics, energy methods, introduction to the theory of elasticity, fundamentals of fracture mechanics.

Grade Mode: Normal Grading Mode

ENGR 682 Research **1-6 Credit hours**

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 MS degrees.

Grade Mode: Credit/No Credit Grade Only

ENGR 685 Independent Study **1-4 Credit hours**

An approved study of special interest concerning engineering under the supervision of a faculty member. (PR: Consent)

Grade Mode: Normal Grading Mode

ENGR 686 Independent Study **1-4 Credit hours**

An approved study of special interest concerning engineering under the supervision of a faculty member. (PR: Consent)

Grade Mode: Normal Grading Mode

ENGR 687 Independent Study **1-4 Credit hours**

An approved study of special interest concerning engineering under the supervision of a faculty member. (PR: Consent)

Grade Mode: Satisfactory/Unsatisfactory

ENGR 688 Independent Study **1-4 Credit hours**

An approved study of special interest concerning engineering under the supervision of a faculty members. (PR: Consent)

Grade Mode: Normal Grading Mode

ENGR 695 Internship in Engineering **3 Credit hours**

Supervised on-the-job experience. The student will work in a technology or engineering company or department with an organization. (PR: Permission)

Grade Mode: Credit/No Credit Grade Only

ENGR 699 Comprehensive Project **3 Credit hours**

Completion of comprehensive project under the supervision of a faculty member. Includes final written submittal and public oral presentation. Fulfills engineering MS requirement for Project Option.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

Engineering Management (EM)

EM 601 The Management Process **3 Credit hours**

This course covers the management process and the structural, organizational and behavioral principles needed by managers to function effectively in organizational environments.

Grade Mode: Normal Grading Mode

EM 620 Mgt Tech HR & Orgs **3 Credit hours**

Principles leading to better management and development of technical human resources and organizations. Included are concepts technical managers need to positively change themselves and to lead others toward desired behavior.

Grade Mode: Normal Grading Mode

EM 640 Personnel Administration **3 Credit hours**

Grade Mode: Normal Grading Mode

EM 642 Industrial Psychology **3 Credit hours**

Grade Mode: Normal Grading Mode

EM 644 Organizational Behavior **3 Credit hours**

Grade Mode: Normal Grading Mode

EM 650 Special Topics **1-4 Credit hours**

Study of special topics of an advanced nature. (PR: Consent)

Grade Mode: Normal Grading Mode

EM 651 Special Topics **1-4 Credit hours**

Study of special topics of an advanced nature. (PR: Consent)

Grade Mode: Normal Grading Mode

EM 652 Special Topics **1-4 Credit hours**

Study of special topics of an advanced nature. (PR: Consent)

Grade Mode: Normal Grading Mode

EM 653 Special Topics **1-4 Credit hours**

Study of special topics of an advanced nature. (PR: Consent)

Grade Mode: Normal Grading Mode

EM 660 Project Management **3 Credit hours**

Provides the student with a practical knowledge of how to integrate effectively the functional efforts of many in the execution of programs and projects.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

EM 661 Advanced Project Management **3 Credit hours**

Course is designed to increase proficiency in the advanced aspects of project management. Participants will become aware of the project management processes in PMI's Project Management Body of Knowledge.

Grade Mode: Normal Grading Mode

EM 662 Organization Theory **3 Credit hours**

Grade Mode: Normal Grading Mode

EM 664 Mgt Res & Devel Organizations **3 Credit hours**

Techniques and methods for effective management of research and development organizations, projects, and personnel. (PR: EM 601)

Grade Mode: Normal Grading Mode

EM 665 Mgt Engineering Organizations **3 Credit hours**

Techniques and methods for effective management of engineering firms, departments, and personnel. (PR: EM 601)

Grade Mode: Normal Grading Mode

EM 668 Operations Management 3 Credit hours

Examination of the quantitative and conceptual tools for generating goods and services in manufacturing and non-manufacturing organizations.

Grade Mode: Normal Grading Mode

EM 670 Seminar in Engineering Mgt 3 Credit hours

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)

Grade Mode: Normal Grading Mode

EM 675 Engineering Economics 3 Credit hours

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)

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

EM 682 Management Information Systems 3 Credit hours

Grade Mode: Normal Grading Mode

EM 683 Systems Analysis Technique 3 Credit hours

Grade Mode: Normal Grading Mode

EM 684 Systems Design for Tech Info 3 Credit hours

Grade Mode: Normal Grading Mode

EM 694 Engineering Law 3 Credit hours

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.

Grade Mode: Normal Grading Mode

EM 699 Comprehensive Project in EM 3 Credit hours

Grade Mode: Satisfactory/Unsatisfactory

EM 770 Sem in Engineering Management 3 Credit hours

Grade Mode: Normal Grading Mode

EM 780 Special Topics 3-6 Credit hours

Grade Mode: Normal Grading Mode

EM 790 Final Project/Engr Management 3 Credit hours

Grade Mode: Normal Grading Mode

EM 799 RESEARCH 1-6 Credit hours

Grade Mode: Normal Grading Mode

English (ENG)

ENG 500 Listening/Speaking in Context 3 Credit hours

This course promotes the development of English language fluency by nonnative speakers of English. It specifically targets the language skills necessary for successful oral communication within a graduate school context.

Grade Mode: Normal Grading Mode

ENG 501 Reading in Context 3 Credit hours

This course prepares nonnative speakers of English to meet the challenges of reading for academic purposes at the graduate college level by improving their reading skills and English language proficiency.

Grade Mode: Normal Grading Mode

ENG 502 Comp & Rhet for Teachers 3 Credit hours

Study of rhetorical invention and models of composing process, with intensive practice in writing.

Grade Mode: Normal Grading Mode

ENG 505 History English Language 3 Credit hours

The phonology, spelling, grammar, syntax, and vocabulary of previous language periods as background to Modern English.

Grade Mode: Normal Grading Mode

ENG 506 Composition in Context 6 Credit hours

This course for nonnative speakers of English focuses on written English within a graduate school context. Attention is placed on grammar, mechanics, research, American English rhetorical conventions, and process writing.

Grade Mode: Normal Grading Mode

ENG 507 Writing, Editing & Doc Design 3 Credit hours

Study of the principles and practices of professional writing, editing, and document design.

Grade Mode: Normal Grading Mode

ENG 508 Writing in the Digital World 3 Credit hours

Development of writing skills and strategies with an emphasis on digital texts and genres.

Grade Mode: Normal Grading Mode

ENG 509 Milton 3 Credit hours

Biographical and critical study, including Milton's English poetry and prose, and his literary and intellectual milieu.

Grade Mode: Normal Grading Mode

ENG 510 Shaks Comedy Tragedy & Rom 3 Credit hours

Intensive study of Shakespeare's comedies, tragicomedies and late romances. Also includes the Sonnets and Venus and Adonis.

Grade Mode: Normal Grading Mode

ENG 511 Chaucer 3 Credit hours

The poetry of Chaucer, including the Canterbury Tales, in the light of medieval tradition and critical analysis.

Grade Mode: Normal Grading Mode

ENG 512 Shaks Hist & Tragedies 3 Credit hours

Intensive study of Shakespeare's histories and Tragedies.

Grade Mode: Normal Grading Mode

ENG 514 19th Cent English Novel 3 Credit hours

Austen, Scott, the Brontes, Eliot, Dickens, Thackeray, Trollope, Meredith, Hardy, Butler, Wilde, and their contemporaries.

Grade Mode: Normal Grading Mode

ENG 515 Victorian Poetry 3 Credit hours

Emphasis on Tennyson, the Brownings, Arnold, Hopkins, Christina Rossetti, Hardy and the pre-Raphaelites.

Grade Mode: Normal Grading Mode

ENG 516 Victorian Nonfiction 3 Credit hours

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.

Grade Mode: Normal Grading Mode

ENG 517 English Drama to 1642 3 Credit hours

Non-Shakespearean English drama from its beginnings to the closing of the theatres.

Grade Mode: Normal Grading Mode

ENG 519 Approaches Teaching Lit 3 Credit hours

The intensive study of the pedagogy of literature and literary critical theory and its classroom applications.

Grade Mode: Normal Grading Mode

ENG 521 American Lit to 1830**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ENG 522 American Lit 1830-1865****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ENG 523 American Lit 1865-1914****3 Credit hours**

American literature of the Realistic and Naturalistic periods, including such authors as Howells, Twain, James, Dreiser, Chesnutt, Wharton, Crane, and Chopin.

Grade Mode: Normal Grading Mode**ENG 524 American Literature after 1914****3 Credit hours**

American literature after 1914, including such authors as Faulkner, Hemingway, Cather, Mailer, Carver, Vonnegut, Morrison and others.

Grade Mode: Normal Grading Mode**ENG 526 Appalachian Lit & Theory****3 Credit hours**

Appalachian Literature and Theory conducts an in-depth study of aspects of Appalachian culture and literature through the lens of select literary and social theories such as multiculturalism, feminism, or post-colonialism.

Grade Mode: Normal Grading Mode**ENG 528 International Literature****3 Credit hours**

Readings in contemporary literature from the non Anglo-European world. Texts by Asian, African, South American, Australian, and other authors.

Grade Mode: Normal Grading Mode**ENG 530 Young Adult Literature****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ENG 531 Writing for Nonprofit****3 Credit hours**

This course focuses on the genres and strategic applications of writing for nonprofit organizations. Students will analyze relevant texts and resources while writing and producing materials that nonprofits require.

Grade Mode: Normal Grading Mode**ENG 532 Contemporary Literature****3 Credit hours**

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/ managa, 'zines, blogs, hypertext).

Grade Mode: Normal Grading Mode**ENG 533 Contemp English Poetry****3 Credit hours**

Principle poetry since the Victorian period.

Grade Mode: Normal Grading Mode**ENG 534 Contemp American Poetry****3 Credit hours**

Principle poetry since 1900.

Grade Mode: Normal Grading Mode**ENG 535 Modernism****3 Credit hours**

A study of trans-Atlantic Modernist writers, including both poetry and prose.

Grade Mode: Normal Grading Mode**ENG 536 Medieval English Lit****3 Credit hours**

Old English elegiac and heroic poetry; Middle English lyrics and romances; the Ricardian poets and Malory

Grade Mode: Normal Grading Mode**ENG 537 Tudor Lit 16th Century****3 Credit hours**

Survey may include works by More, Skelton, Wyatt, Sidney, Spenser, Nashe, Marlowe, Raleigh, Lyly, Sidney, Mary Sidney, and Shakespeare, excluding drama.

Grade Mode: Normal Grading Mode**ENG 538 17th Century Lit****3 Credit hours**

Survey may include Donne and the Metaphysical poets, the Cavalier lyricists, Bacon, Browne, Wroth, Cary, Lanyer, Herbert, Jonson, Burton, Walton, Hobbes, and Bunyan.

Grade Mode: Normal Grading Mode**ENG 547 English Romantic Poets****3 Credit hours**

Emphasis on Blake, Wordsworth, Coleridge, Byron, Shelly, and Keats.

Grade Mode: Normal Grading Mode**ENG 555 Literary Criticism****3 Credit hours**

Historical study, with application of principles.

Grade Mode: Normal Grading Mode**ENG 560 Comp and Writing Center Theory****4 Credit hours**

Introduces students to the study of teaching writing in a classroom setting and in one-to-one tutoring. (PR: graduate program admission)

Grade Mode: Normal Grading Mode**ENG 566 Literacy Studies****3 Credit hours**

Theories of writing and reading development with a focus on cultural, linguistic, and rhetorical influences on literacy acquisition.

Grade Mode: Normal Grading Mode**ENG 567 Visual Rhetoric****3 Credit hours**

Study of the production, strategies, reception, and persuasive effects of visual texts.

Grade Mode: Normal Grading Mode**ENG 569 Creative Writing Pedagogy****3 Credit hours**

A study of the professional and pedagogical methods and theories related to teaching and designing courses in creative writing.

Grade Mode: Normal Grading Mode**ENG 570 Form/Theory: Creative Writing****3 Credit hours**

Readings in contemporary literature (fiction, non-fiction, and poetry) addressing the work in terms of the formal and theoretical concerns that drive it. Course text will challenge notions of genre, form, theory, and practice.

Grade Mode: Normal Grading Mode**ENG 575 Intro to Linguistics****3 Credit hours**

The structural and descriptive approach to study of the English language.

Grade Mode: Normal Grading Mode**ENG 576 Structures of English Language****3 Credit hours**

Study of the structures of English grammar, including how these structures relate to punctuation, language acquisition, dialect variation, and the history of English.

Grade Mode: Normal Grading Mode

ENG 578 Intro to Sociolinguistics	3 Credit hours	ENG 618 Language Assessment	3 Credit hours
Sociolinguistics is the study of the effects of language in society, relevant to discourse practices, language attitudes, variations, shifts, and changes.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 580 Special Topics	1-4 Credit hours	ENG 622 Second Language Learning	3 Credit hours
(PR: Permission of the chair)		This course starts with an overview of disciplinary frameworks of language development, then addresses the four major theoretical perspectives: linguistics, cognitive, sociolinguistic and sociocultural.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 581 Special Topics	1-4 Credit hours	ENG 624 20th Century British Novel	3 Credit hours
(PR: Permission of the chair)		Major British novelists of the twentieth century.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 582 Special Topics	1-4 Credit hours	ENG 625 20th Century American Novel	3 Credit hours
(PR: Permission of the chair)		Major American novelists of the twentieth century.	
Grade Mode: Normal Grading Mode		Pre-req: ENG 630.	
ENG 583 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
(PR: Permission of the chair)		ENG 626 Systemic Functional Grammar	3 Credit hours
Grade Mode: Normal Grading Mode		This course is a general introduction to the principles and practice of Systemic Functional Grammar with an emphasis on the paradigmatic meaning making potential of language systems.	
ENG 585 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
(PR: Permission of the chair)		ENG 627 Text Analysis	3 Credit hours
Grade Mode: Normal Grading Mode		Text analysis compares crucial aspects of English syntax, discourse pragmatics, and prepositional and lexical semantics with those of other languages.	
ENG 586 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
(PR: Permission of the chair)		ENG 628 20th Cent African-American Lit	3 Credit hours
Grade Mode: Normal Grading Mode		An intensive study of selected novels, plays and poems of the period.	
ENG 587 Independent Study	1-4 Credit hours	Pre-req: ENG 630.	
(PR: Permission of the chair)		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ENG 630 Materials & Meth Research	3 Credit hours
ENG 588 Independent Study	1-4 Credit hours	Instruction and practice in scholarly literary research. Required among first 12 hours of course work and prior to admission to candidacy for the Master of Arts degree with a major in English.	
(PR: Permission of the chair)		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ENG 631 Major American Authors	3 Credit hours
ENG 591 Poetry Workshop	3 Credit hours	An intensive study of selected American authors.	
A practical and intensive class in exploring the varieties of creative expression; exercises on the creating of verse in different forms and styles.		Pre-req: ENG 630.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 592 Fiction Workshop	3 Credit hours	ENG 632 Topics in American Lit	3 Credit hours
A forum for presentation, discussion, and refinement of the student's work, either short stories or novels.		Concentrated study of continuing themes or influences in American literature; for example, narrative perspectives, regional influences, or conflict in agrarian and industrial values.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 593 Creative Nonfiction Workshop	3 Credit hours	ENG 633 ENG Research Applied Lin	3 Credit hours
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.).		To inform students of various approaches to research in applied linguistics. To equip students with the critical skills to evaluate research with the end result of conducting their own research.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 615 TESOL Methods	3 Credit hours	ENG 634 Teaching EAP	3 Credit hours
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.		To help students understand the characteristics of academic English, and to train pre-service ESL or EFL teachers on how to teach English for academic purposes.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ENG 617 TESOL Curriculum Dev	3 Credit hours		
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.			
Grade Mode: Normal Grading Mode			

- ENG 635 Major Texts** **3 Credit hours**
An intensive study of a single major text from any period of British, American, or anglophone literature, leading to mastery of the text, its critical responses, and its influences.
Grade Mode: Normal Grading Mode
- ENG 636 Selected English Writers** **3 Credit hours**
An intensive study of a small group of selected English writers such as the Metaphysical Poets, the Cavalier Poets, or the Bloomsbury Group.
Pre-req: ENG 630.
Grade Mode: Normal Grading Mode
- ENG 637 Topics in English Lit** **3 Credit hours**
A concentrated study of themes or influences in English literature; for example, narrative strategies, medievalism, the pastoral mode, or conflicting moral, social or literary values.
Pre-req: ENG 630.
Grade Mode: Normal Grading Mode
- ENG 638 Language and Context** **3 Credit hours**
Survey of genre and register analysis research from the three perspectives of ESP (English for Special Purpose), New Rhetoric, and Systemic Functional Linguistics.
Grade Mode: Normal Grading Mode
- ENG 639 CALL** **3 Credit hours**
This graduate seminar course introduces students to general topics of computer-assisted language learning (CALL), focusing on the use and research of computer technologies in second-language teaching and learning. Students will gain updated pedagogical knowledge on the integration of CALL in language classes, and also develop competence to evaluate and conduct research in CALL.
Grade Mode: Normal Grading Mode
- ENG 640 Composition Pedagogy** **3 Credit hours**
This course builds on composition theory to address the various pedagogies and strategies most commonly practiced in the beginning composition classroom. Required for graduate assistants in English.
Grade Mode: Normal Grading Mode
- ENG 645 Res Method Comp & Rhet** **3 Credit hours**
An applied survey course in the theories, methods, and designs of research in the discipline of Composition and Rhetoric.
Pre-req: ENG 560.
Grade Mode: Normal Grading Mode
- ENG 646 Topics Rhetoric Composition** **3 Credit hours**
Study of prevailing topics in Rhetoric and Composition. Topics may include Eco-Rhetoric, Assessment, and the Rhetoric of Science, among others.
Pre-req: ENG 560.
Grade Mode: Normal Grading Mode
- ENG 648 Feminist Rhetorics** **3 Credit hours**
Study of the ways language shapes and is influenced by gender and identity.
Grade Mode: Normal Grading Mode
- ENG 650 Special Topics** **3 Credit hours**
Topics designed by individual professors according to special interests (outside of strictly English or American literature subjects) and approved departmentally on a year- to-year basis, to be offered the following year.
Grade Mode: Normal Grading Mode
- ENG 651 Special Topics** **3 Credit hours**
Grade Mode: Normal Grading Mode
- ENG 652 Special Topics** **3 Credit hours**
Grade Mode: Normal Grading Mode
- ENG 653 Special Topics** **3 Credit hours**
Topics designed by individual professors according to special interests (outside of strictly English or American literature subjects) and approved departmentally on a year- to-year basis, to be offered the following year.
Grade Mode: Normal Grading Mode
- ENG 660 Literary Theory** **3 Credit hours**
Intensive introduction to one or more literary or cultural theories, familiarizing students with the major developments, terms, premises, and debates of the theory or theories in question.
Grade Mode: Normal Grading Mode
- ENG 661 Studies in Genre** **3 Credit hours**
An intensive study of one or more literary genres, familiarizing students with the major developments, terms, premises, and debates concerning the genre or genres in question.
Pre-req: ENG 630.
Grade Mode: Normal Grading Mode
- ENG 665 Creative Writing Workshop** **3 Credit hours**
An intensive multi-genre study of the best practices for the writing and revising of creative writing.
Grade Mode: Normal Grading Mode
- ENG 670 TESOL Practicum I** **3 Credit hours**
This supervised practicum engages students in classroom observation and promotes their ability to reflect on classroom practice.
Pre-req: ENG 615 or ENG 617 or ENG 651.
Grade Mode: Credit/No Credit Grade Only
- ENG 671 TESOL Practicum II** **3 Credit hours**
In this supervised practicum, students design and implement lessons in language classrooms. Students receive feedback on their teaching and engage in the practice of reflection.
Pre-req: ENG 670.
Grade Mode: Credit/No Credit Grade Only
- ENG 675 Professional Topics in Writing** **3 Credit hours**
A study of professional topics on the writing, editing/publishing and teaching of writing in the current literacy and job markets.
Grade Mode: Normal Grading Mode
- ENG 681 Thesis** **1-9 Credit hours**
Pre-req: ENG 630.
Attributes: No Textbook Required
Grade Mode: Credit/No Credit Grade Only
- ENG 682 Portfolio** **1-9 Credit hours**
Extensive revision and creation of new original writing for the purposes of demonstrating knowledge and ability, as well as preparing students for further graduate study or the job market.
Attributes: No Textbook Required
Grade Mode: Credit/No Credit Grade Only
- ENG 683 Comprehensive Exams** **1-9 Credit hours**
Preparation and extensive reading for exams in three areas of study. Students are expected to demonstrate expertise in these three areas through completion of essay exams.
Grade Mode: Credit/No Credit Grade Only
- ENG 685 Independent Study** **1-4 Credit hours**
Independent Study
Grade Mode: Normal Grading Mode

ENG 686 Independent Study

Independent Study

Grade Mode: Normal Grading Mode**1-4 Credit hours****ENG 687 Independent Study**

Independent Study

Grade Mode: Normal Grading Mode**1-4 Credit hours****ENG 688 Independent Study**

Independent Study

Grade Mode: Normal Grading Mode**1-4 Credit hours****ENG 689 Internship**

Supervised work experience in English.

Grade Mode: Normal Grading Mode**1-4 Credit hours**

Entrepreneurship (ENT)

ENT 680 Entrepreneurship**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

Environmental Engineering (ENVE)

ENVE 600 Special Topics in Envr Engr**1-3 Credit hours****Grade Mode:** Normal Grading Mode**ENVE 611 Air Pollution Design I****3 Credit hours**

An introduction to absorption, condensation, incineration, absorption, and process modification relevant to the design of abatement systems for gaseous air pollutant emissions. (PR: unit operations, thermodynamics and calculus)

Grade Mode: Normal Grading Mode**ENVE 612 Air Pollution Design II****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ENVE 615 Environmental Chemistry****3 Credit hours**

Fundamental principles governing the various aspects of chemistry relevant to the environment will be addressed. The chemistry of waste treatment, cycle processes and other applications will be evaluated. (PR: Consent)

Grade Mode: Normal Grading Mode**ENVE 616 Wastewater Treatment Fac Dsgn****3 Credit hours**

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)

Pre-req: ENVE 615.**Grade Mode:** Normal Grading Mode**ENVE 617 Water Treatment Fac Design****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ENVE 618 Pollution Prevention****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ENVE 620 Solid Waste Management****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ENVE 625 Hazardous Waste Manangement****3 Credit hours**

Options and methods of managing hazardous waste. Landfill design, testing, operation, monitoring, and closure. Incinerator design, testing, operation, and monitoring. Design and operation of treatment facilities. Waste reduction practices.

Grade Mode: Normal Grading Mode**ENVE 650 Special Topics****1-4 Credit hours**

Occasional special offerings in Environmental Engineering. (PR: Consent)

Grade Mode: Normal Grading Mode**ENVE 651 Special Topics****1-4 Credit hours**

Occasional special offerings in Environmental Engineering. (PR: Consent)

Grade Mode: Normal Grading Mode**ENVE 652 Special Topics****1-4 Credit hours**

Occasional special offerings in Environmental Engineering. (PR: Consent)

Grade Mode: Normal Grading Mode**ENVE 653 Special Topics****1-4 Credit hours**

Occasional special offerings in Environmental Engineering. (PR: Consent)

Grade Mode: Normal Grading Mode**ENVE 663 Environmental Permitting****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ENVE 670 Hydrology and Drainage Control****1-6 Credit hours**

The goal of this course is to develop an understanding of watershed processes, including precipitation, generation of runoff, infiltration, stream flow, soil erosion, sediment transport and deposition, and fluvial geomorphology. The course provides students with an overview of hydrologic concepts, such as precipitation and runoff flow, with an emphasis on practical applications such as modeling and control of runoff and sedimentation. Additional practical applications covered in the course are highway drainage concepts, including calculation of runoff and design of channels, culverts and other control structures.

Grade Mode: Normal Grading Mode**ENVE 671 Hydraulic Structures****3 Credit hours**

Analysis and design of water conveyance channels and hydraulic structures, such as siphons, chutes, weirs, flumes, dams, spillways, gates, locks, storm surge barriers, and outlet works.

Grade Mode: Normal Grading Mode

ENVE 672 Watershed Modeling**3 Credit hours**

Setup, execution, and calibration of numerical watershed models. Includes the rational method, TR-55, HEC-1, and HEC-HMS. Emphasis on watershed analysis for decision making and drainage design.

Grade Mode: Normal Grading Mode**ENVE 673 Industrial Ventilation****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ENVE 675 Industrial Noise Control****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ENVE 680 Air Poll Disper Meteoro Model****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ENVE 681 Environmental Engr Design****3 Credit hours**

Principles of engineering design of water and waste- water treatment systems and processes, including physical, chemical and biological treatment and handling of treatment residuals. Includes coverage of relevant water quality concepts.

Grade Mode: Normal Grading Mode**ENVE 682 Environmental Remediation Tech****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ENVE 683 Environmental Geotechnology****3 Credit hours**

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)

Grade Mode: Normal Grading Mode

Environmental Science (ES)

ES 514 Environmental Risk Assessment**3 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**ES 550 Environmental Law & Policy****3 Credit hours**

Introduction to major federal environmental legislation and related state programs, judicial review, and practical effects, and to processes for formulation and development of environmental policy.

Grade Mode: Normal Grading Mode**ES 554 Watershed Protection****3 Credit hours**

This course reviews key components of watershed structure and functions before investigating and applying concepts for managing and restoring aquatic ecosystems.

Grade Mode: Normal Grading Mode**ES 575 Intro to Environmental Science****3 Credit hours**

The principles of chemistry, geology and mathematics used in pollution control. Topographic maps, environmental regulations, field testing and compliance. Economics of use of pollution control devices.

Grade Mode: Normal Grading Mode**ES 582 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**ES 583 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**ES 585 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**ES 586 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**ES 587 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**ES 588 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**ES 602 Study of WV Environment****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ES 603 Seminar In Current Envr Issues****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ES 604 Air Pollution****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ES 605 Analy Prin Environ Sampling****3 Credit hours**

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 spectroscopy. (PR: Chemistry and ES 600, or equivalent experience)

Grade Mode: Normal Grading Mode**ES 609 Topics in Bioscience Education****1-6 Credit hours**

Selected topics of interest to teachers of biology. (PR: Consent)

Grade Mode: Normal Grading Mode**ES 610 Envr Sampling Practice****3 Credit hours**

Current practice in environmental testing and monitoring. Traditional wastewater 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)

Grade Mode: Normal Grading Mode

ES 620 Environmental Management Sys**3 Credit hours**

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.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**ES 626 Remote Sensing & Map Use****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ES 630 Environmental Site Assessment****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ES 640 Groundwater Princ & Monitoring****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ES 645 Applied Hydrogeology****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ES 646 Dynamics of Ecosystems****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ES 648 Vegetation of West Virginia****3 Credit hours****Grade Mode:** Normal Grading Mode**ES 651 Environmental Microbiology****3 Credit hours****Grade Mode:** Normal Grading Mode**ES 652 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**ES 655 Environmental Ethics****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**ES 656 Prep Eval Environ Impact State****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ES 660 Environmental Law I****3 Credit hours**

Introduction to major federal environmental legislation and related state programs, including policy issues, judicial review, and practical effects. Includes CERCLA, RCRA, Clean Water Act, NEPA, ESA and SDWA.

Grade Mode: Normal Grading Mode**ES 661 Environmental Regulations****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ES 663 Environmental Law II****3 Credit hours**

Course covers three general topic areas: environmental assessment and biodiversity assessment (NEPA and ESA), risk management and the regulation of toxic substances (TSCA, FIFRA, and SDWA), and international environmental law.

Pre-req: ES 660.**Grade Mode:** Normal Grading Mode**ES 665 Water Resources Management****3 Credit hours**

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/managment/policy approach to water resource issues.

Grade Mode: Normal Grading Mode**ES 670 Sustainable Energy****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ES 674 Epidemiological Hlth Res Tech****3 Credit hours**

An introduction to techniques of epidemiological health research. The primary focus will be health problems in the industrial setting.

Grade Mode: Normal Grading Mode**ES 675 Brownfields Management****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ES 680 Thesis****1-6 Credit hours**

Students completing ES 680 must defend their thesis in an oral examination.

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only

Exercise Science and Sport (ESS)

ESS 515 PE in Pre Elem Mid School**3 Credit hours****Grade Mode:** Normal Grading Mode**ESS 517 Teaching College Phys Ed****3 Credit hours****Grade Mode:** Normal Grading Mode

ESS 542 Strength and Cond	3 Credit hours	ESS 588 Independent Study	1-4 Credit hours
Delivery of strength and conditioning principles related to musculoskeletal movement and the utilization of energy systems for the development and administration of sport-based exercise programs.		Grade Mode: Normal Grading Mode	
Pre-req: ESS 543 (may be taken concurrently) with a minimum grade of D.		ESS 591 Worskhop in Physical Ed	1-3 Credit hours
Concurrent PR: ESS 543		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ESS 592 Workshop in Physical Ed	1-3 Credit hours
ESS 543 Strength and Cond Lab	1 Credit hour	Grade Mode: Normal Grading Mode	
Direct application of strength and conditioning principles in the development and administration of sport-based exercise programs. Emphasis will be on the training and demonstration of proper communication and technique regarding the components of flexibility, resistance training, power-lifting, Olympic weightlifting, and speed and agility.		ESS 593 Workshop in Physical Ed	1-3 Credit hours
Pre-req: ESS 542 (may be taken concurrently) with a minimum grade of D.		Grade Mode: Normal Grading Mode	
Concurrent PR: ESS 542		ESS 594 Workshop in Physical Ed	1-3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ESS 560 Professional Development	1-4 Credit hours	ESS 600 Adv. Readings in Sports Ethics	3 Credit hours
Grade Mode: Credit/No Credit Grade Only		A critical analysis of and engagement with leading ethical thinking as applied to sport.	
ESS 561 Professional Development	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Credit/No Credit Grade Only		ESS 601 Adv Exercise Testing	3 Credit hours
ESS 562 Professional Development	1-4 Credit hours	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.	
Grade Mode: Credit/No Credit Grade Only		Grade Mode: Normal Grading Mode	
ESS 563 Professional Development	1-4 Credit hours	ESS 608 Motor Learning & Perform	3 Credit hours
Grade Mode: Credit/No Credit Grade Only		Grade Mode: Normal Grading Mode	
ESS 564 Professional Development	1-4 Credit hours	ESS 610 Phys Growth & Motor Devel	3 Credit hours
Grade Mode: Credit/No Credit Grade Only		Grade Mode: Normal Grading Mode	
ESS 569 Curriculum Development PE	3 Credit hours	ESS 621 Adv Exercise Physiology I	3 Credit hours
Grade Mode: Normal Grading Mode		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.	
ESS 576 Theo Prac Aspect Coaching	3 Credit hours	Grade Mode: Normal Grading Mode	
An in depth study of the principles and problems of coaching.		ESS 622 PE for Atypical Individ	3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ESS 578 Exercise Metabolism	3 Credit hours	ESS 623 Adv Ex Phys II	3 Credit hours
Addresses the principles of sport nutrition and its effects on physiological systems, body composition, and human exercise performance.		Addresses neuromuscular plasticity and physiological adaptations to environmental stimuli during exercise.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ESS 580 Special Topics	1-4 Credit hours	ESS 626 Hist & Phil PE & Sports	3 Credit hours
Grade Mode: Normal Grading Mode		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.	
ESS 581 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		ESS 631 Perform Tech & Analysis	3 Credit hours
ESS 582 Special Topics	1-4 Credit hours	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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
ESS 583 Special Topics	1-4 Credit hours	ESS 632 Perform Tech & Analysis	3 Credit hours
Grade Mode: Normal Grading Mode		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.	
ESS 585 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Attributes: No Textbook Required			
Grade Mode: Normal Grading Mode			
ESS 586 Independent Study	1-4 Credit hours		
Grade Mode: Normal Grading Mode			
ESS 587 Independent Study	1-4 Credit hours		
Grade Mode: Normal Grading Mode			

ESS 633 Perform Tech & Analysis**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ESS 634 Perform Tech & Analysis****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ESS 636 Structural Kinesiology****3 Credit hours**

Instruction and laboratory experiences involving musculoskeletal anatomy and biomechanics as applied to human movement.

Grade Mode: Normal Grading Mode**ESS 641 Theor/Factor Ath Perform****3 Credit hours****Grade Mode:** Normal Grading Mode**ESS 642 Devise Train & Cond Prog****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ESS 644 Cardio Exer Physiol****3 Credit hours**

Detailed study of the anatomy and physiology of the cardiovascular system and its response to acute and chronic exercise.

Pre-req: ESS 621.**Grade Mode:** Normal Grading Mode**ESS 645 Respir Exer Physiol****3 Credit hours**

Detailed study of the anatomy and physiology of the respiratory system and its response to acute and chronic exercise.

Pre-req: ESS 621 and ESS 623 and ESS 670.**Grade Mode:** Normal Grading Mode**ESS 646 Neuro Exer Physiol/Plas****3 Credit hours**

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.

Pre-req: ESS 621 and ESS 623 and ESS 670.**Grade Mode:** Normal Grading Mode**ESS 651 Mech Analysis Motor Skill****3 Credit hours**

Analysis of motor skills through the application of the principles of physics.

Grade Mode: Normal Grading Mode**ESS 654 Contemp & Compar Phys Ed****3 Credit hours**

A study of objectives, methods, personnel, facilities, and program uniqueness of the physical education of selected nations and world regions. National sport programs, international sport programs and competition, and international professional organizations are considered.

Grade Mode: Normal Grading Mode**ESS 660 Internship****3-6 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**ESS 665 Adv Test & Measure Phy Ed****3 Credit hours****Grade Mode:** Normal Grading Mode**ESS 670 Research Meth in Kinesiology****3 Credit hours**

An examination of experimental research design, laboratory methods, construction of instruments, execution of research, and presentation of research papers with an emphasis on science.

Grade Mode: Normal Grading Mode**ESS 681 Thesis****1-6 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**ESS 682 Prev & Rehab Physiology****3 Credit hours**

An examination of experimental research design, laboratory methods, construction of instruments, execution of research, and presentation of research papers with an emphasis on science.

Grade Mode: Normal Grading Mode**ESS 683 Cardiovascular Assessment****3 Credit hours**

Considers cardiovascular assessment strategies, including EKG interpretation, related medical profile variables, patient/client/athlete screening and risk stratification.

Grade Mode: Normal Grading Mode**ESS 685 Admin Prev Rehab Med Prog****3 Credit hours****Grade Mode:** Normal Grading Mode**ESS 686 Behav Asp Well Dis Rehab****3 Credit hours****Grade Mode:** Normal Grading Mode**ESS 687 Cardiac Life Support****3 Credit hours****Grade Mode:** Normal Grading Mode

Family Community Health (FCH)

FCH 610 Appalachian Cult & Geog**3 Credit hours**

An overview of the geography and culture of Appalachian. Development of a historical perspective on the health and medical care of its people. Identification of current health care resources. Preparation for successful integration into communities as a health care provider. Recognition of the impact of any culture and geography on health.

Grade Mode: Normal Grading Mode**FCH 615 Health Care Admin****3 Credit hours**

Descriptive overview of the structure, organization and function of health care systems. Introduction of analytic issues through case studies.

Grade Mode: Normal Grading Mode**FCH 620 Community Diag & Treatmnt****4 Credit hours**

The assessment of community health strengths and weaknesses. Development and implementation of practical solutions with special emphasis on environmental health.

Grade Mode: Normal Grading Mode**FCH 625 Health Care Research Meth****3 Credit hours**

The development of skills necessary to investigate community health problems in a scientific manner. The effective organization and presentation of data.

Grade Mode: Normal Grading Mode**FCH 630 Educational Skills****3 Credit hours**

The development of skills necessary for successful continuing personal education, effective medical resident and student teaching, and patient and community education.

Grade Mode: Normal Grading Mode

FCH 635 Epidemiology	3 Credit hours	FCH 735 Hum Bhvr/Disease Trop Dev Coun	1-18 Credit hours
The office-based application of epidemiologic methods to community health problems. Evaluation and application of the literature.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		FCH 740 Clinical Nutrition	1 Credit hour
FCH 636 Health Statistics	3 Credit hours	Grade Mode: Normal Grading Mode	
The practical application of statistics to community health and research. Use of statistics in epidemiologic studies.		FCH 742 Fam Com Hlth Clerkship	1-18 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Pass/Fail Grading Mode	
FCH 640 Practice Materials	2 Credit hours	FCH 750 Computers In Medicine	1 Credit hour
A series of practical workshops on topics useful to office practice: tracking systems, office laboratory, small computers, etc.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		FCH 760 Geographic Medicine	1 Credit hour
FCH 645 Comm Health Care Monitor	2 Credit hours	Grade Mode: Normal Grading Mode	
The development and maintenance of a quality assessment program for health care in the office, hospital and community setting. Includes peer review, chart review and assessment of health care costs.		FCH 775 Medical Spanish	1-18 Credit hours
Grade Mode: Normal Grading Mode		Medical Spanish is designed as an independent learning course to develop a student's competence in interviewing, taking medical histories, examining, diagnosing, and treating Spanish-speaking patients. This course will offer elementary-level instruction in Spanish language and culture, all oriented to the practice of medicine with Spanish-speaking patients.	
FCH 650 Comm & Natl Health Econ	2 Credit hours	Grade Mode: Pass/Fail Grading Mode	
The fiscal and economic aspects of health care nationally, in office practice, in the hospital and in the community. Includes causes of and solutions to escalating costs of health care.		FCH 780 Special Topics	1-18 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Pass/Fail Grading Mode	
FCH 681 Masters Thesis Comm Hlth	6 Credit hours	FCH 785 Independent Study	1-15 Credit hours
Supervised community-based research on a topic in community health. Required time commitment of one-half day per week while in the rural practice portion of the program.		Grade Mode: Credit/No Credit Grade Only	
Grade Mode: Normal Grading Mode		FCH 790 Wilderness Medicine Elective	1-18 Credit hours
FCH 682 Special Topics Comm Health I	1-3 Credit hours	Grade Mode: Normal Grading Mode	
Completion of a special topic in community health under the supervision of a faculty member in the Department. Project should be relevant to health care issues in Central Appalachia.		FCH 800 Clerkship In Family Prac	1-18 Credit hours
Pre-req: FCH 610 and FCH 635.		Grade Mode: Pass/Fail Grading Mode	
Grade Mode: Normal Grading Mode		FCH 805 State Dept Health Activ	1-18 Credit hours
FCH 683 Special Topics Comm Health II	1-3 Credit hours	Grade Mode: Normal Grading Mode	
Completion of a special topic in community health under the supervision of a faculty member in the Department. Project should be relevant to health care issues in Central Appalachia.		FCH 806 Local Health Dept	1-18 Credit hours
Pre-req: FCH 610 and FCH 635.		Grade Mode: Pass/Fail Grading Mode	
Grade Mode: Normal Grading Mode		FCH 815 Occupational Medicine	1-18 Credit hours
FCH 700 Integrative Medicine	1-18 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Pass/Fail Grading Mode		FCH 820 Rehabilitation Medicine	1-18 Credit hours
FCH 710 Family Practice Clerkship	8 Credit hours	The student will be exposed to general rehabilitation medicine including musculoskeletal problems and usage of different modalities in treating injuries.	
Grade Mode: Normal Grading Mode		Grade Mode: Pass/Fail Grading Mode	
FCH 712 Rural Physician Asso Program	1-36 Credit hours	FCH 825 Family Planning	1-18 Credit hours
Rural primary care preceptorship.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		FCH 827 Subinternship Family Medicine	1-18 Credit hours
FCH 715 Biostat/Epidemiology	1-18 Credit hours	Grade Mode: Pass/Fail Grading Mode	
Grade Mode: Pass/Fail Grading Mode		FCH 835 Frontier Nursing Service	1-18 Credit hours
FCH 720 Community Medicine	3 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Pass/Fail Grading Mode		FCH 840 Clerkship In Family Prac	1-18 Credit hours
FCH 730 Global Health Care Initiatives	1-18 Credit hours	Grade Mode: Pass/Fail Grading Mode	
This course will be offered for the summer months between first and second years. Students could also enroll between the second and third year if they desire to delay the third year.		FCH 845 Sports Med Adult Fitness	1-18 Credit hours
Grade Mode: Pass/Fail Grading Mode		Grade Mode: Pass/Fail Grading Mode	

FCH 850 Rural Geriatrics**1-18 Credit hours**

Fourth year students will participate in a multidisciplinary community-based, home care program for the rural elderly. The program is the Benedum Rural Geriatrics Program, a model which is unique in the United States. Care is given by a geriatrics team based at Lincoln Primary Care Center. Students will accompany team members on home visits, see elderly patients at LPCC, participate in team meetings, and become involved in research projects if they so elect.

Grade Mode: Normal Grading Mode**FCH 855 Readings in Rural Health****1-18 Credit hours**

Overview of problems and issues of providing health care to rural communities.

Grade Mode: Normal Grading Mode**FCH 856 Readings in Sports Medicine****1-18 Credit hours**

Overview of problems and issues pertaining to sports medicine and adult and adolescent fitness.

Grade Mode: Normal Grading Mode**FCH 857 Readings International Health****1-18 Credit hours**

Overview of issues of providing health care in the international setting.

Grade Mode: Normal Grading Mode**FCH 860 Community Medicine****1-18 Credit hours**

Provide medical students with training and experience in community health.

Grade Mode: Normal Grading Mode**FCH 865 Epidemiology Of Mycoses****1-18 Credit hours****Grade Mode:** Normal Grading Mode**FCH 866 Disease Within Community****1-18 Credit hours****Grade Mode:** Normal Grading Mode**FCH 867 Work And Health****1-18 Credit hours****Grade Mode:** Normal Grading Mode**FCH 868 FCH Externship****1-18 Credit hours**

Out-of-State Externship

Grade Mode: Pass/Fail Grading Mode**FCH 875 Comp Review of Clinical Med****2 Credit hours****Grade Mode:** Pass/Fail Grading Mode**FCH 880 International Health****1-18 Credit hours****Grade Mode:** Normal Grading Mode**FCH 885 Medical Spanish****1-18 Credit hours**

Medical Spanish.

Grade Mode: Pass/Fail Grading Mode**FCH 888 Rural Health Initia Elec Alt****1-18 Credit hours**

Acquaints students with issues of rural community health and wellness. Provides students with knowledge, attitudes and skills to participate in a changing health care environment.

Grade Mode: Pass/Fail Grading Mode**FCH 889 Alternative Medicine Elective****1-18 Credit hours**

The student will observe a selected number of alternative medicine practices and techniques, complete a series of required readings and discuss alternative approaches to healing with patients and providers.

Grade Mode: Normal Grading Mode**FCH 890 Wilderness Medicine****2-8 Credit hours**

The course will teach medical students about injuries that occur in the back country.

Grade Mode: Pass/Fail Grading Mode**FCH 895 Hospice and Palliative Care****1-18 Credit hours**

The primary objective of this elective will be for a student to obtain hands-on, intensive and well-supervised experience in the management of end-of-life situations involving patients, family members and other health care providers.

Grade Mode: Pass/Fail Grading Mode

Finance (FIN)

FIN 510 Prin Business Finance**3 Credit hours**

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: Permission of MBA director).

Pre-req: ACC 510 and ECN 501 and MGT 500.**Grade Mode:** Normal Grading Mode**FIN 532 Fin Advising FINRA S-7****3 Credit hours**

This course prepares students for the Series 7 exam that entitles the holder to sell all types of securities products with the exception of commodities and futures.

Grade Mode: Normal Grading Mode**FIN 556 Income Tax Planning****3 Credit hours**

This course focuses on principles and current law of income taxation and its impact on financial planning for individuals, couples and families as investors, employees and business owners.

Pre-req: FIN 551.**Grade Mode:** Normal Grading Mode**FIN 558 Estate Planning****3 Credit hours**

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.

Pre-req: FIN 551.**Grade Mode:** Normal Grading Mode**FIN 580 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**FIN 581 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**FIN 620 Financial Management****3 Credit hours**

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.

Pre-req: MGT 601.**Grade Mode:** Normal Grading Mode**FIN 623 Investments****3 Credit hours**

A study of fundamental investment principles, modern portfolio theory, and portfolio formation process and the evaluation of portfolio performance.

Pre-req: FIN 501G or FIN 501.**Grade Mode:** Normal Grading Mode**FIN 625 Financial Prob Business****3 Credit hours**

Recognizing and solving financial problems through the use of case presentations and/or corporate annual and interim reports.

Pre-req: FIN 620.**Grade Mode:** Normal Grading Mode

FIN 626 Sec Anlysis-Portfolio Mgt**3 Credit hours**

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.

Pre-req: FIN 620.**Grade Mode:** Normal Grading Mode**FIN 627 Fin Institution & Markets****3 Credit hours**

An in-depth study of the flow of funds in the 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.

Pre-req: FIN 620.**Grade Mode:** Normal Grading Mode**FIN 630 Multinational FIN MGT****3 Credit hours**

This course analyzes the challenges of multinational corporations' financial management. It covers three areas: foreign exchange market transactions, exchange rate risk and hedging, and corporate financial decisions of an MNC.

Grade Mode: Normal Grading Mode**FIN 650 Special Topics****1-3 Credit hours**

(Permission of the division head, full M.B.A. admission, and permission of GSM academic advisor)

Pre-req: FIN 501G or FIN 510.**Grade Mode:** Normal Grading Mode**FIN 651 Special Topics****1-3 Credit hours****Pre-req:** FIN 620.**Grade Mode:** Normal Grading Mode**FIN 660 Independent Study****1-4 Credit hours**

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)

Pre-req: FIN 620.**Grade Mode:** Normal Grading Mode**FIN 681 Thesis****1-6 Credit hours**

(PR: Permission of the division head and full M.B.A. admission)

Grade Mode: Normal Grading Mode**FIN 699 Business Policy & Strategy****3 Credit hours**

Study of administrative decisions making under conditions of uncertainty. Policy construction at top administrative level with emphasis on strategy with consideration of major functions of the business organization.

Grade Mode: Normal Grading Mode

Forensic Science (FSC)

FSC 600 Cell & Molecular Biology**3 Credit hours**

A study of the molecular biology of the cell and its organelles, cell interactions, and differentiation.

Grade Mode: Normal Grading Mode**FSC 603 Genetics-DNA Lab****1 Credit hour**

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. Laboratory to be offered in conjunction with genetics and DNA Technology (FSC 604) stressing techniques and methods required for DNA analysis and trace evidence investigation.

Grade Mode: Normal Grading Mode**FSC 604 Genetics & DNA Technology****3 Credit hours**

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. An introduction to crime scene investigations, physical evidence collection, inorganic and organic analysis, serology, fingerprints, arson, drugs, documents, firearms and DNA technologies.

Grade Mode: Normal Grading Mode**FSC 605 F S Digital Imaging****3 Credit hours**

Introductory course in digital image processing. Covers techniques used in forensic laboratory to enhance, analyze, and catalog digital images. Instruction in lab setting.

Grade Mode: Normal Grading Mode**FSC 606 Crime Scene/Death Investiga****2 Credit hours**

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.

Grade Mode: Normal Grading Mode**FSC 607 Blood Stain Pattern Analysis****3 Credit hours**

A comprehensive bloodstain pattern analysis course including bullet trajectory, courtroom testimony, and report writing. This course is taught as a combination of lectures, laboratories, and practical exercises.

Pre-req: FSC 606.**Grade Mode:** Normal Grading Mode**FSC 608 Forensic Toxicology****3 Credit hours**

An in-depth analysis of both clinical and forensic aspects of toxicology from the viewpoint of the forensic and medical examiner's toxicology laboratories. In depth discussions dealing with current and future DNA technologies and toxicology, expert witnessing in mock trials, quality assurance/quality control issues, CODIS and DNA banking.

Grade Mode: Normal Grading Mode**FSC 609 Network Forensics****3 Credit hours**

Teaches the basics of how computers and networks function, how they can be involved in crimes as well as used as a source of evidence. Teaches the basics of how computers and networks function. How they can be involved in crimes and how they can be used as a source of evidence.

Grade Mode: Normal Grading Mode**FSC 610 Bioterrorism: Forensics****3 Credit hours**

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. Course traces the historical development, current status, and future threats of bioterrorism in US and on a global scale. It includes microbiological, as well as forensic science issues.

Grade Mode: Normal Grading Mode

FSC 612 Intro Foren Micro/Trace**2 Credit hours**

Introduction to various types of microscopy used in forensics, including scanning electron microscopy, light and fluorescence microscopy and polarizing microscopy. Photographic techniques used for documentation will also be discussed.

Grade Mode: Normal Grading Mode**FSC 615 Adv Crime Investigation****3 Credit hours**

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, wound analysis.

Pre-req: FSC 606.**Grade Mode:** Normal Grading Mode**FSC 617 Adv Crime Photo & Document****3 Credit hours**

This series of lectures and practical exercises introduces the student to sophisticated crime scene documentation techniques including sketching, surveying, photography and crime scene management techniques.

Pre-req: FSC 606.**Grade Mode:** Normal Grading Mode**FSC 618 Forensic Comparative Sciences****2 Credit hours**

"Introduction to comparative methods used by forensic scientists for analysis of fingerprints, questioned documents, and firearms". Introduction to comparative methods used by forensic scientists for analysis of fingerprints, questioned documents, and firearms.

Grade Mode: Normal Grading Mode**FSC 619 Forensic Statistics****3 Credit hours**

Basic theory of probability and statistics, odds from Bayes' theorem for transfer evidence, likelihood ratio, population and statistical genetics, statistical issues in paternity testing and mixtures, and presenting evidence.

Grade Mode: Normal Grading Mode**FSC 622 Forensic Analytical Chem****3 Credit hours**

Analytical chemistry instrumentation and methods used by forensic scientists for analysis of drugs, toxicology, arson, explosives, trace evidence and sample collection and processing.

Grade Mode: Normal Grading Mode**FSC 623 Forensic Chemistry Laboratory****1 Credit hour**

Laboratory practicum will develop skill set needed in the forensic analysis of physical evidence using standard methods and modern analytical instrumentation.

Grade Mode: Normal Grading Mode**FSC 624 Biochemistry: Forensic Science****4 Credit hours**

This comprehensive course in biochemistry focuses on concepts appropriate to forensic science and designed to meet forensic science educational standards at a national level. Comprehensive course in Biochemistry which focuses on concepts appropriate to Forensic Science.

Grade Mode: Normal Grading Mode**FSC 626 Advanced Drug Analysis****2 Credit hours**

Concentration on modern analytical methods used in the isolation and the identification of illicit drugs and their metabolites in biological samples and other forensic evidence. (PR: FSC 622 or permission of instructor)

Grade Mode: Normal Grading Mode**FSC 627 Human Genetics****2 Credit hours**

Human Genetics serves as an introduction to the study of heritable traits in humans and their molecular basis; basic genetic principles, statistics, and probability; population database analyses; principles of population genetics and laws of Mendelian genetics as they relate to human identification; application of paternity testing and identification of human remains; use of single nucleotide polymorphisms (SNPs) and mtDNA profiling in forensic applications.

Pre-req: FSC 624.**Grade Mode:** Normal Grading Mode**FSC 628 Chem Analysis Trace Evidence****2 Credit hours**

A continuation of FSC 622 emphasizing additional types of evidence including paint, inks, fibers, and plastics. Methods Include pyrolysis-GCMS, micro-FTIR, GPC and capillary electrophoresis. Required course for Forensic Chemistry emphasis.

Grade Mode: Normal Grading Mode**FSC 629 Advanced DNA Technologies****2 Credit hours**

This course will provide advanced instruction in DNA technologies to assist in the preparation for a career in a forensic DNA laboratory.

Pre-req: (FSC 603 or FSC 643) and FSC 604.**Grade Mode:** Normal Grading Mode**FSC 630 Internship****5 Credit hours**

A 10 week internship in a crime lab or other forensic science related research laboratory. Application of principles and techniques learned during first year of program.

Grade Mode: Normal Grading Mode**FSC 632 Found Fund Digital Forensics****3 Credit hours**

The 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 basics concepts of computer security. The course is taught primarily in a lecture format. Class discussions and participation in practical exercises supplement lectures.

Grade Mode: Normal Grading Mode**FSC 634 Comp Search & Seizure****3 Credit hours**

Topics covered in this course will expand upon material covered in FSC 632. Additional areas include affidavits and warrants, national information security concepts, evidence collection, transport and preservation, computer networks, e-mail traces, imaging of original evidence, introduction to forensic tools, Window registry, malware and spyware, virtualization and hand held devices. Classes are presented in a lecture format and culminates with a mock, digital crime scene exercise.

Grade Mode: Normal Grading Mode**FSC 636 Mobile Phone Forensics****2 Credit hours**

This course addresses the complexity and structure of modern smart phones and focuses on data evidence storage and extraction for criminal case investigations.

Grade Mode: Normal Grading Mode**FSC 640 Firearms Toolmarks I****1 Credit hour**

This course provides an enhanced learning experience designed to reduce the time to competency typical of the knowledge required component for a firearms examiner training program. FSC 640 is the first of two firearms and toolmarks examiner training courses.

Grade Mode: Normal Grading Mode

FSC 641 Firearms Toolmarks II**1 Credit hour**

This course provides an enhanced learning experience designed to reduce the time to competency typical of the knowledge required component of a firearms examiner training program. FSC 641 is the second of two firearms and toolmarks examiner training courses.

Grade Mode: Normal Grading Mode**FSC 642 DNA Tech Assistance I****2 Credit hours**

The goal of the DNA Technical Assistance Program (DNA TAP) is to prepare select students for placement in host forensic laboratories for validation and evaluation research studies. The student undergoes accelerated lectures and intense hands-on laboratory exercises including analytical procedures, instrument training, and data analysis.

Grade Mode: Normal Grading Mode**FSC 643 DNA Tech Assistance II****2 Credit hours**

The goal of the DNA Technical Assistance Program (DNA TAP) is to prepare select students for placement in host forensic laboratories for validation and evaluation research studies. The student undergoes accelerated lectures and intense hands-on laboratory exercises including analytical procedures, instrument training, and data analysis.

Grade Mode: Normal Grading Mode**FSC 646 Lab Management****2 Credit hours**

This course provides a foundation in management theory, principles & application necessary for forensic scientists who aspire to assume future positions as crime lab supervisors, managers, technical leaders, quality managers, directors or other roles as leaders in their field. This course addresses management theory as well as its practical application to the crime laboratory setting from an ISO/IEC 17025 perspective.

Grade Mode: Normal Grading Mode**FSC 650 Special Topics****1-4 Credit hours**

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode**FSC 651 Special Topics****1-4 Credit hours**

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode**FSC 652 Special Topics****1-4 Credit hours**

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode**FSC 653 Special Topics****1-4 Credit hours**

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode**FSC 660 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**FSC 665 Legal Court in Forensic****3 Credit hours**

Covers the American legal system with specific emphasis on expert witnessing by forensic scientists. Mock trials provide experience in the courtroom.

Grade Mode: Normal Grading Mode**FSC 676 Adv Dig Evid Detect Recovery****2 Credit hours**

This advanced Digital Evidence Detection and Recovery course will provide an overview of the advanced procedures and techniques used by investigators working with digital evidence. This course will be taught as a combination of lectures, lab and practical exercises.

Grade Mode: Normal Grading Mode**FSC 679 Special Problems****1-4 Credit hours**

Students will be assigned specific areas of study for independent investigation. (PR: Consent of advisor)

Grade Mode: Normal Grading Mode**FSC 680 Seminar****1 Credit hour**

Faculty, student and guest speaker presentations of topics pertinent to forensic science. Faculty, student and guest speaker presentations of topics pertinent to forensic science and molecular biology and toxicology.

Grade Mode: Normal Grading Mode**FSC 681 Thesis****1-6 Credit hours**

Research conducted in the laboratories at MU which is focused on a problem of forensic importance. The original research problem will be written up as a formal document and submitted as part of the requirements to fulfill a MS degree in the research track.

Grade Mode: Normal Grading Mode**FSC 685 Intro Research****1-6 Credit hours**

Directed research which can be used to satisfy requirements for a Master's Degree in Forensic Science.

Grade Mode: Normal Grading Mode

French (FRN)

FRN 536 19Th Century Literature**3 Credit hours**

Realistic and naturalistic fiction, realism in theatre, and selected poems of Baudelaire, the Parnassians, and the Symbolists.

Grade Mode: Normal Grading Mode**FRN 580 Special Topics****1-4 Credit hours**

A course for advanced students sufficiently prepared to do constructive work in phases of the language or literature of interest to them.

Grade Mode: Normal Grading Mode**FRN 581 Special Topics****1-4 Credit hours**

A course for advanced students sufficiently prepared to do constructive work in phases of the language or literature of interest to them.

Grade Mode: Normal Grading Mode**FRN 582 Special Topics****1-4 Credit hours**

A course for advanced students sufficiently prepared to do constructive work in phases of the language or literature of interest to them.

Grade Mode: Normal Grading Mode**FRN 583 Special Topics****1-4 Credit hours**

A course for advanced students sufficiently prepared to do constructive work in phases of the language or literature of interest to them.

Grade Mode: Normal Grading Mode**FRN 585 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**FRN 586 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**FRN 587 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**FRN 588 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode

Geography (GEO)

GEO 502 Geography of Appalachia 3 Credit hours

A study of the geography of Appalachia, including landforms, climate, settlement patterns, population, economics, resources, politics, and environmental changes.

Grade Mode: Normal Grading Mode

GEO 504 Geography of Europe 3 Credit hours

An examination of the geography of Europe focusing on contemporary issues, including climate, culture, economics, environmental change, everyday life, international relations, landforms, language, politics, population, religion, and urbanization.

Grade Mode: Normal Grading Mode

GEO 505 Political Geography 3 Credit hours

An examination of contemporary patterns, processes, and problems of political geography in global perspective, including globalization, colonialism, imperialism, geopolitics, nationalism, diplomacy, international borders, governance, political representation, and future projections.

Grade Mode: Normal Grading Mode

GEO 506 Population Geography 3 Credit hours

An examination of contemporary patterns, processes, and problems of population geography in global perspective, including fertility, mortality, demographic change, migration, malnutrition, urbanization, natural resource sustainability, and future projections.

Grade Mode: Normal Grading Mode

GEO 508 Geog of South & Middle America 3 Credit hours

A study of settlement, transportation, manufacturing agriculture, geopolitics and natural resources of South and Middle American countries.

Grade Mode: Normal Grading Mode

GEO 510 Urban Geography 3 Credit hours

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.

Grade Mode: Normal Grading Mode

GEO 511 Health and Medical Geography 3 Credit hours

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.

Grade Mode: Normal Grading Mode

GEO 522 Environmental Geography 3 Credit hours

Geographical survey of environmental changes caused by human activities. Focus on resource availability and use; pollution of air, water, and biosphere; energy problems, and human interaction with natural movement.

Grade Mode: Normal Grading Mode

GEO 523 Cartography & GIS 3 Credit hours

An introduction to cartography as the cornerstone of geographic information systems/science. Students will learn GIS-based map making, interpretation, and design. The course explores cartographic techniques to represent and visualize data.

Grade Mode: Normal Grading Mode

GEO 524 Transportation Geography 3 Credit hours

A geographic analysis of transportation and its spatial organization. Concepts, models, and analytical methods related to traffic demand, network configuration, and allocation of transport facilities are covered.

Grade Mode: Normal Grading Mode

GEO 525 Climatology 4 Credit hours

A study of elements of weather and climate, methods of climatic classification, and distribution and characteristics of world climatic regions.

Grade Mode: Normal Grading Mode

GEO 526 Principles of GIS 4 Credit hours

This course allows incoming graduate students to obtain foundational GIS skills required to succeed in more specialized graduate level GIScience courses.

Grade Mode: Normal Grading Mode

GEO 529 Princ of GIS 2-Vector Analysis 4 Credit hours

Continuation of GEO 526 Principles of GIS, including additional principles like data management, cartographic design, and geocoding; and vector analyses like spatial patterns analysis, spatial autocorrelation, and network analysis.

Pre-req: GEO 526 or GEO 530.

Grade Mode: Normal Grading Mode

GEO 530 GIS-Raster Analysis 4 Credit hours

GIS raster analysis, including local, neighborhood, and zonal operations, terrain analysis, building raster databases, distance modeling, and surface interpolation. Data collection and input from readily available sources, creation of custom data using GPS, and advanced spatial analysis using GIS.

Pre-req: GEO 526 or GEO 529.

Grade Mode: Normal Grading Mode

GEO 531 Remote Sensing & Photogram 4 Credit hours

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.

Pre-req: GEO 526 or GEO 529 or GEO 530.

Grade Mode: Normal Grading Mode

GEO 532 Enterprise GIS 3 Credit hours

Principles and techniques for planning, implementing, and managing Geographic Information Systems technologies in a firm or agency.

Grade Mode: Normal Grading Mode

GEO 533 GPS & Mobile Geospatial T 3 Credit hours

An analysis of the design and deployment of Global Navigation Satellite Systems such as GPS (Global Positioning System) and their application to mobile map systems.

Grade Mode: Normal Grading Mode

GEO 534 Flood Hazards and GIS 3 Credit hours

Application of principles of flood hazards preparation, disaster management, and mitigation using Geographic Information Systems (GIS).

Grade Mode: Normal Grading Mode

GEO 540 Spatial Statistics and GIS 4 Credit hours

Statistical methods applied to problem solving in geography and using GIS for display and analysis. Primary focus on descriptive and inferential spatial statistics, mapping, and spatial analysis of data.

Grade Mode: Normal Grading Mode

GEO 554 Drones:Remote Sensing & GIS**3 Credit hours**

Learn FAA rules and safety procedures; prepare for Remote Pilot licensing exam; operate drones to collect remote sensing data; process imagery for analysis; integrate sUAS imagery with existing GIS data.

Grade Mode: Normal Grading Mode**GEO 560 Weather Analysis****4 Credit hours**

Introduction to reading weather maps and meteorological analysis techniques including satellite and radar image interpretation and numerical weather prediction.

Grade Mode: Normal Grading Mode**GEO 580 Special Topics****1-4 Credit hours**

Selected geography subjects to cover unusual geography topics not in the regular course offerings of the department.

Grade Mode: Normal Grading Mode**GEO 581 Special Topics****1-4 Credit hours**

Selected geography subjects to cover unusual geography topics not in the regular course offerings of the department.

Grade Mode: Normal Grading Mode**GEO 582 Special Topics****1-4 Credit hours**

Selected geography subjects to cover unusual geography topics not in the regular course offerings of the department.

Grade Mode: Normal Grading Mode**GEO 583 Special Topics****1-4 Credit hours**

Selected geography subjects to cover unusual geography topics not in the regular course offerings of the department.

Grade Mode: Normal Grading Mode**GEO 585 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GEO 586 Independent Study****1-4 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**GEO 587 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GEO 588 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**GEO 601 Colloquium in Geography****1-3 Credit hours**

Speaker series introducing and sharing knowledge and experiences with geographic focus. Students are to learn from the knowledge and experience of faculty members, graduate students, alumni, and scholars.

Grade Mode: Credit/No Credit Grade Only**GEO 607 Economic Geography****3 Credit hours**

Topics in economic geography including industrial location, transportation systems, economic development, international trade relationships and globalism.

Grade Mode: Normal Grading Mode**GEO 615 Geographic Thought****3 Credit hours**

Survey of the history, literature, prominent individuals, and major paradigms in geography. Review of the major concepts in geography and an introduction to various methods of geographic inquiry.

Grade Mode: Normal Grading Mode**GEO 616 Geographical Research Methods****3 Credit hours**

Students examine/practice four research methods in geography--qualitative, quantitative, GIScience, and field/lab methods--and learn to choose among them and use them for their own research and analysis.

Grade Mode: Normal Grading Mode**GEO 617 Seminars in Geography****1-3 Credit hours**

Selected geography subjects/topics not included in the regular course offerings of the department are considered, using a seminar approach to learning.

Grade Mode: Normal Grading Mode**GEO 618 Seminars in Geography****1-3 Credit hours**

Selected geography subjects/topics not included in the regular course offerings of the department are considered, using a seminar approach to learning.

Grade Mode: Normal Grading Mode**GEO 619 Seminars in Geography****1-3 Credit hours**

Selected geography subjects/topics not included in the regular course offerings of the department are considered, using a seminar approach to learning.

Grade Mode: Normal Grading Mode**GEO 620 Problems in Environ Geog****3 Credit hours**

Geographic aspects of world environmental problems including such topics as global warming, acid rain, energy supplies, population growth and soil depletion.

Grade Mode: Normal Grading Mode**GEO 623 Regions of North America****3 Credit hours**

This seminar course examines regional geographies of North America with an emphasis on the research and methods for delineation of regions.

Grade Mode: Normal Grading Mode**GEO 631 Applied GIS Projects****3 Credit hours**

Use of advanced GIS techniques to solve community-service research problems.

Pre-req: GEO 530.**Grade Mode:** Normal Grading Mode**GEO 634 GIS Databases & Programming****3 Credit hours**

Configuration and management of geospatial databases. Python scripting for analysis, geoprocessing, and workflow automation within a GIS environment.

Grade Mode: Normal Grading Mode**GEO 679 Applied Project****1-3 Credit hours****Grade Mode:** Normal Grading Mode**GEO 681 Thesis****1-6 Credit hours****Grade Mode:** Normal Grading Mode**GEO 690 Internship in Geography****1-6 Credit hours**

Student will be employed a minimum of 300 hours with an agency approved by geography department. Faculty advisor and agency will consult periodically on student progress.

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only

Geology (GLY)

GLY 510 Big Bend Field Excursion**2 Credit hours**

Field trip to Big Bend National Park, Texas to study the structure, stratigraphy, igneous geology, metamorphic geology, paleontology and natural history of this national park.

Grade Mode: Normal Grading Mode

GLY 518 Invertebrate Paleontology 4 Credit hours

Taxonomy, morphology, and paleoecology of body and trace fossils representing the major invertebrate phyla; analysis and interpretation of faunal assemblages; evolution and extinction of species. (PR: GLY 201)

Grade Mode: Normal Grading Mode

GLY 521 Petrology 4 Credit hours

Identification and classification of igneous, sedimentary and metamorphic rocks, their origin and occurrence; their geologic and economic. 2 lec-4 lab.

Grade Mode: Normal Grading Mode

GLY 523 Sedimentary Petrography 4 Credit hours

Megascopic and microscopic identification and a depositional and post-depositional interpretation of the sedimentary rocks. 3 lec-2 lab.

Grade Mode: Normal Grading Mode

GLY 525 Geochemistry 4 Credit hours

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.

Grade Mode: Normal Grading Mode

GLY 527 Fossil Fuels 4 Credit hours

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.

Pre-req: GLY 200.

Grade Mode: Normal Grading Mode

GLY 530 Computer Methods Geology 4 Credit hours

The computer will be used for compilation, reduction, data analysis and modelling from a wide range of geological problems. Existing and student developed programs will be used.

Grade Mode: Normal Grading Mode

GLY 551 Principles Geomorphology 4 Credit hours

Identification and analysis of the earth's surficial features in terms of stratigraphy, structure, processes, tectonics, and time. 3 lec - 2 lab.

Grade Mode: Normal Grading Mode

GLY 555 Hydrogeology 3 Credit hours

The properties of water, the hydrologic cycle with emphasis on surface and groundwater processes. The uses, needs and problems associated with water resources.

Grade Mode: Normal Grading Mode

GLY 555L Hydrogeology Laboratory 1 Credit hour

Laboratory and field experiments studying principles and concepts of hydrology. 2 lab.

Grade Mode: Normal Grading Mode

GLY 556 Environmental Geology 4 Credit hours

Consideration of risks posed by natural geo-hazards and from physical/chemical contamination of geological media.

Grade Mode: Normal Grading Mode

GLY 557 Engineering Geology 4 Credit hours

Consideration of geotechnical problems faced by geologists and engineers. Major topics include mechanics and classification of soil and rock, and geotechnical aspects of groundwater.

Grade Mode: Normal Grading Mode

GLY 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

GLY 581 Special Topics

Grade Mode: Normal Grading Mode

1-4 Credit hours

GLY 582 Special Topics

Grade Mode: Normal Grading Mode

1-4 Credit hours

GLY 583 Special Topics

Grade Mode: Normal Grading Mode

1-4 Credit hours

GLY 585 Independent Study

Grade Mode: Normal Grading Mode

1-4 Credit hours

GLY 586 Independent Study

Grade Mode: Normal Grading Mode

1-4 Credit hours

GLY 587 Independent Study

Grade Mode: Normal Grading Mode

1-4 Credit hours

GLY 588 Independent Study

Grade Mode: Normal Grading Mode

1-4 Credit hours

GLY 640 Physical Aspects Geology

Grade Mode: Normal Grading Mode

1-4 Credit hours

GLY 641 Biological Aspect Geology

Grade Mode: Normal Grading Mode

1-4 Credit hours

GLY 642 Chemical Aspects Geology

Grade Mode: Normal Grading Mode

1-4 Credit hours

GLY 681 Thesis

Grade Mode: Normal Grading Mode

1-6 Credit hours

Health Care Administration (HCA)

HCA 600 The Health Care System

3 Credit hours

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)

Grade Mode: Normal Grading Mode

HCA 610 Health Care Financial Mgt

3 Credit hours

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)

Pre-req: HCA 600.

Grade Mode: Normal Grading Mode

HCA 611 QUANT METHODS IN HEALTH CARE M

1 Credit hour

HCA 615 Health Care Econ

3 Credit hours

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.

Pre-req: HCA 600.

Grade Mode: Normal Grading Mode

HCA 620 Ethical Dimensions/Hlth Care**3 Credit hours**

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 all allocation of scarce resources, the type and availability of care for special populations, and conflicts of interest. (PR: HCA 600)

Pre-req: HCA 600 or HCA 600G.**Grade Mode:** Normal Grading Mode**HCA 622 Utilization of HSR****3 Credit hours**

Provides an introduction to methods of undertaking research and program evaluation within health services organizations and delivery systems.

Pre-req: HCA 600 and MKT 511.**Grade Mode:** Normal Grading Mode**HCA 630 Legal Issues/Health Care Mgt****3 Credit hours**

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)

Pre-req: HCA 600 or HCA 600G.**Grade Mode:** Normal Grading Mode**HCA 640 The Health Care Professional****3 Credit hours**

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 accountabilities 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)

Grade Mode: Normal Grading Mode**HCA 641 Clinical Experiences at CAMC****3-9 Credit hours****Grade Mode:** Credit/No Credit Grade Only**HCA 650 Comparative Health Systems****3 Credit hours**

A survey of health care provision systems throughout the world. Survey of health care provision systems throughout the world.

Grade Mode: Normal Grading Mode**HCA 651 Health Care Operations****3 Credit hours**

Investigation of the use of operations management techniques and methodologies that are useful in the health care industry.

Grade Mode: Normal Grading Mode**HCA 652 Health Care Finance****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HCA 653 Integrated Health Care Del Sys****3 Credit hours**

Provides an in-depth knowledge of health care delivery systems with emphasis on the major managerial issues faced by integrated delivery systems.

Grade Mode: Normal Grading Mode**HCA 654 Human Res Manage in Hlth Care****3 Credit hours**

Investigation of the human resource function found within contemporary health care provision systems. Discussion of future challenges facing the function in this turbulent environment.

Grade Mode: Normal Grading Mode**HCA 655 Health Care Marketing****3 Credit hours**

An investigation of the role of marketing in today's health care organizations. Specific topics include market segmentation, consumer behavior, promotion, and environmental analysis.

Grade Mode: Normal Grading Mode**HCA 656 Mgt of Medical Technology****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HCA 657 Health Care Law and Policy****3 Credit hours**

An examination of the legal, regulatory, and policy-making interactions between government, society, and health care organizations and providers.

Grade Mode: Normal Grading Mode**HCA 658 Long Term Care****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HCA 659 Rural Health Care****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HCA 671 Health Care Practicum****1-6 Credit hours**

Project-oriented experience in health care operations and organizations. Intended for those students with insufficient experience in the field.

Grade Mode: Normal Grading Mode**HCA 695 Fld Res/Health Care Mgt****3 Credit hours**

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: Completion of all 600-level required HCA courses, plus permission of program director)

Grade Mode: Normal Grading Mode**HCA 697 Topics Health Care Admin****3 Credit hours**

The course is designed to allow group study of selected topics of current interest in health care management. (PR: Consent of instructor)

Grade Mode: Normal Grading Mode

HCA 698 Indpdnt Study-Hlth Care Admn 1-3 Credit hours**Pre-req:** HCA 600 or HCA 600G.**Grade Mode:** Normal Grading Mode**HCA 699 Seminar in Health Care Admin 3 Credit hours****Grade Mode:** Normal Grading Mode**HCA 750 Field Research/Health Care Mgt 3 Credit hours****Pre-req:** (HCA 610 or HCA 610G) and (HCA 620 or HCA 620G) and (HCA 630 or HCA 630G).**Grade Mode:** Normal Grading Mode**HCA 797 Thesis 6 Credit hours****Grade Mode:** Normal Grading Mode

Health Education (HE)

HE 561 Professional Development 1-4 Credit hours

Courses and activities designed to meet the specific in- service needs of public school personnel. Credit in these courses may be used for certificate renewal and salary upgrading if approved but not for degrees.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**HE 640 Health Eval for the Ath Trn 3 Credit hours**

An indepth study of common problems and complaints of athletes and the proper method of evaluating those complaints.

Grade Mode: Normal Grading Mode

Health Informatics (HIN)

HIN 605 The Role of EHR and PHR 3 Credit hours

Students will be introduced to the main concepts and software applications of Electronic Health Records and Personal Health Records.

Grade Mode: Normal Grading Mode**HIN 610 Analytics for Health Care 3 Credit hours**

Data analytic tools useful in healthcare data analysis and healthcare administrative decision-making including health data analysis, visualization, and reporting techniques.

Grade Mode: Normal Grading Mode**HIN 615 Health Quality and Safety 3 Credit hours**

Provide an experience that will prepare students to work effectively in professional positions, and to bridge the learning gained in course work with the world of practice.

Grade Mode: Normal Grading Mode**HIN 620 Legal Health & Informat 3 Credit hours**

The course will introduce students to IT governance, health information ethic and legal requirements to improve health care processes, customer response and business competitiveness.

Grade Mode: Normal Grading Mode**HIN 630 Research Methods and Data 3 Credit hours**

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 process.

Grade Mode: Normal Grading Mode**HIN 650 Health Informatics Practicum 3 Credit hours**

Provide an experience to prepare students to work effectively in professional positions, and bridge the learning gained in course work with the world of practice.

Pre-req: HIN 605 with a minimum grade of D and HCA 656 with a minimum grade of D.**Grade Mode:** Normal Grading Mode**HIN 685 Independent Study 1-4 Credit hours**

Independent Study relates to projects that do not fall specifically within an individual department's curriculum.

Grade Mode: Normal Grading Mode**HIN 686 Independent Study 1-4 Credit hours**

Independent Study relates to projects that do not fall specifically within an individual department's curriculum.

Grade Mode: Normal Grading Mode**HIN 687 Independent Study 1-4 Credit hours**

Independent Study relates to projects that do not fall specifically within an individual department's curriculum.

Grade Mode: Normal Grading Mode**HIN 688 Independent Study 1-4 Credit hours**

Independent Study relates to projects that do not fall specifically within an individual department's curriculum.

Grade Mode: Normal Grading Mode

Health Professions (HP)

HP 605 The Role of EHR and PHR 3 Credit hours

Students will be introduced to the main concepts and software applications of Electronic Health Records and Personal Health Records.

Grade Mode: Normal Grading Mode**HP 610 Analytics for Healthcare 3 Credit hours**

Data analytic tools useful in healthcare data analysis and healthcare administrative decision-making including health data analysis, visualization, and reporting techniques.

Grade Mode: Normal Grading Mode**HP 615 Health Quality and Safety 3 Credit hours**

Provide an experience that will prepare students to work effectively in professional positions, and to bridge the learning gained in course work with the world of practice.

Grade Mode: Normal Grading Mode**HP 620 Legal Health & Informat 3 Credit hours**

The course will introduce students to IT governance, health information ethic and legal requirements to improve health care processes, customer response and business competitiveness.

Grade Mode: Normal Grading Mode**HP 630 Research Methods and Data 3 Credit hours**

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 process.

Grade Mode: Normal Grading Mode**HP 650 Health Infor Practicum 3 Credit hours**

Provide an experience to prepare students to work effectively in professional positions, and bridge the learning gained in course work with the world of practice.

Pre-req: HP 605 and HCA 656.**Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode

HP 686 Independent Study**1-4 Credit hours**

Independent Study relates to projects that do not fall specifically within an individual department's curriculum.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

HP 687 Independent Study**1-4 Credit hours**

Independent Study relates to projects that do not fall specifically within an individual department's curriculum.

Grade Mode: Normal Grading Mode

HP 688 Independent Study**1-4 Credit hours**

Independent Study relates to projects that do not fall specifically within an individual department's curriculum.

Grade Mode: Normal Grading Mode

Health Science (HS)

HS 505 Sport Psychology**3 Credit hours**

An examination of theory, research, and application of psychological principles related to sport and exercise.

Grade Mode: Normal Grading Mode

HS 512 Found Clinical Skills in AT**3 Credit hours**

Taping, bracing, spine boarding, airway and oxygen administration, and other advanced emergency and practical care techniques used in athletic training. (PR: program admissions; CR: HS 522)

Grade Mode: Normal Grading Mode

HS 515 Ath Trng Clinical Exp I**1-3 Credit hours**

To develop evaluation and treatment skills of the student under the direction of a BOC-certified Athletic Trainer. Requires completion of clinical hours and assigned competencies.

Grade Mode: Normal Grading Mode

HS 523 Ortho Assess Upper Extremity**4 Credit hours**

Orthopedic evaluation techniques of the neck and upper extremity for the athletic trainer.

Grade Mode: Normal Grading Mode

HS 524 Ortho Assess Lower Extremity**4 Credit hours**

Orthopedic evaluation techniques of the lower extremity for the athletic trainer.

Grade Mode: Normal Grading Mode

HS 525 Ath Trng Clinical Exp II**3 Credit hours**

To continue developing athletic training evaluation and treatment skills under the direction of a BOC-certified Athletic trainer. (PR: grade of B or higher in HS 515 and 75 clinical hours)

Pre-req: HS 515.

Grade Mode: Normal Grading Mode

HS 535 Biomech Instrument MatLab**3 Credit hours**

This course teaches students the skills to use biomechanical sensors as instruments for research, and the use of MatLab programming language to process the data they collect from their instruments.

Grade Mode: Normal Grading Mode

HS 548 Therapeutic Interventions I**4 Credit hours**

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.

Grade Mode: Normal Grading Mode

HS 549 Therapeutic Interventions II**4 Credit hours**

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.

Grade Mode: Normal Grading Mode

HS 560 Professional Development**1-4 Credit hours**

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 for degrees.

Grade Mode: Normal Grading Mode

HS 561 Professional Development**1-4 Credit hours**

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 for degrees.

Grade Mode: Normal Grading Mode

HS 562 Professional Development**1-4 Credit hours**

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 for degrees.

Grade Mode: Normal Grading Mode

HS 563 Professional Development**1-4 Credit hours**

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 for degrees.

Grade Mode: Normal Grading Mode

HS 564 Professional Development**1-4 Credit hours**

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 for degrees.

Grade Mode: Normal Grading Mode

HS 565 Pathomechanics**3 Credit hours**

An investigation into normal and abnormal human movement patterns in sport, the workplace, and in activities of daily living.

Grade Mode: Normal Grading Mode

HS 566 Biomechanical Analysis**3 Credit hours**

The purpose of the course is to provide an advanced study of biomechanical concepts and their application to human movement and sport skills.

Grade Mode: Normal Grading Mode

HS 578 Biomech Research Pract**1-6 Credit hours**

This course offers "hands-on" work within the biomechanics lab. The student will assist with current research. This experience that allows students to gain practical experience within a lab setting.

Grade Mode: Normal Grading Mode

HS 580 Special Topics**1-4 Credit hours**

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

HS 581 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

HS 582 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours	HS 630 Seminar Athl Training A course designed to use scientific literature to enhance students preparation and knowledge of athletic training. Grade Mode: Normal Grading Mode	3 Credit hours
HS 583 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours		
HS 584 Special Topics in Health Grade Mode: Normal Grading Mode	1-4 Credit hours	HS 634 Ath Trng Externship Approved externship supervised by a clinical preceptor. Requires 225 clinical hours that includes an immersion experience. (PR: HS 645, program permission) Pre-req: HS 645. Grade Mode: Normal Grading Mode	3 Credit hours
HS 585 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours		
HS 586 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours	HS 635 Kinetics in Biomech Students will gain knowledge regarding biomechanics technologies to measure kinetics, acquire the skills to investigate forces and the human body, and learn how to process, analyze, and interpret kinetic data. Grade Mode: Normal Grading Mode	3 Credit hours
HS 587 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours		
HS 588 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours		
HS 589 Independent Study Grade Mode: Normal Grading Mode	3 Credit hours	HS 639 Exam of Gen Med Conditions A study of common general medical conditions and illnesses of physically active individuals and the proper methods of evaluating these complaints. Grade Mode: Normal Grading Mode	3 Credit hours
HS 591 Workshop in Phys Ed Grade Mode: Normal Grading Mode	1-3 Credit hours		
HS 592 Workshop in Phys Ed Grade Mode: Normal Grading Mode	1-3 Credit hours	HS 640 Health Eval for the Ath Trn An indepth study of common problems and complaints of athletes and the proper method of evaluating those complaints. Grade Mode: Normal Grading Mode	3 Credit hours
HS 595 Trends in Biomechanics 2 The purpose of this course is to expose the student to the research process as it pertains to the field of biomechanics. This course is intended to continue the process started in HS 575. Pre-req: HS 575. Grade Mode: Normal Grading Mode	3 Credit hours	HS 645 Ath Trng Clinical Exp III 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: grade of B or higher in HS 525 and 225 clinical hours) Pre-req: HS 525. Grade Mode: Normal Grading Mode	3 Credit hours
HS 609 Org & Admin Athletic Training 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. Grade Mode: Normal Grading Mode	3 Credit hours	HS 646 Athletic Training I Training in the diagnosis of injuries in athletics. The student will be expected to participate in diagnosis tech- niques under the supervision of a trainer. Grade Mode: Normal Grading Mode	3 Credit hours
HS 610 Adv Biomechanics An advance investigation into Newtonian mechanics and their application in their uses human movement analysis. Pre-req: HS 566. Grade Mode: Normal Grading Mode	3 Credit hours	HS 647 Athletic Training II Professional aspects of trainer-doctor and doctor-athlete relations will be taught and exploration of how to pro- fessionally handle injuries and cooperate with physicians. Grade Mode: Normal Grading Mode	3 Credit hours
HS 615 Kinematic Analysis App Biomech This course entails a study of kinematics as it relates to the analysis of human movement involving the mechanical and anatomical characteristics of physical skills through the utilization of research equipment. Grade Mode: Normal Grading Mode	3 Credit hours	HS 650 Human Gait An investigation into normal and abnormal human gait patterns in activities of daily living. Pre-req: ESS 564 or HS 564. Grade Mode: Normal Grading Mode	3 Credit hours
HS 620 Subst Abuse & the Athlete Grade Mode: Normal Grading Mode	3 Credit hours	HS 655 Ath Trng Clinical Exp IV Capstone clinical experience supervised by an MD, PT, PA, or ATC at an approved site. Requires 150 clinical hours. (PR: grade of B or higher in HS 645 and 225 clinical hours) Pre-req: HS 645. Grade Mode: Normal Grading Mode	3 Credit hours
HS 623 Adv Medical Aspect Sports Emphasis on the development of skills in recognition of symptoms of illness, injuries and proper procedures of medical care. Grade Mode: Normal Grading Mode	3 Credit hours		
HS 625 Evdnce Base Prac Ther Elec Agt An in-depth understanding of therapeutic modalities with an emphasis on evidence based literature. Grade Mode: Normal Grading Mode	3 Credit hours		

HS 657 Adv Trn/Certs 1-3 Credit hours

This course allows the student to participate in advanced training and certification courses such as the Functional Movement Screening, Performance Enhancement Specialist, and others that may be offered each year.

Grade Mode: Normal Grading Mode

HS 660 Internship 3-6 Credit hours

Practical experience in a clinical setting.

Grade Mode: Normal Grading Mode

HS 679 Trends in Athletic Training 3 Credit hours

To investigate current trends with regard to evidence based practice, current practice position statements, and current research methods being utilized in athletic training.

Grade Mode: Normal Grading Mode

HS 680 Graduate Project in AT 3 Credit hours

This course involves supervised development of a one-semester scholarly, entrepreneurial or administrative project that synthesizes the student's educational and clinical experiences obtained while matriculating through the PMSAT program.

Pre-req: HS 655.

Co-req: HS 630, HS 634

Grade Mode: Normal Grading Mode

HS 681 Thesis 1-6 Credit hours

Grade Mode: Normal Grading Mode

Historical Studies-Humanities (HIST)

HIST 514 EUROPEAN DIPL HIST 1919-PRESEN 3 Credit hours**HIST 559 RECENT AMERICAN HISTORY 3 Credit hours****HIST 580 Ethnic Hist of West Virginia 3 Credit hours**

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.

Grade Mode: Normal Grading Mode

HIST 585 Coal Mine Life/Work/Culture 3 Credit hours

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.

HIST 600 Selected Topics/Hist Studies 1-6 Credit hours

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.

Grade Mode: Normal Grading Mode

HIST 601 Historic Preservation 3 Credit hours

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.

Grade Mode: Normal Grading Mode

HIST 602 SEMINAR IN HISTORICAL STUDIES 3 Credit hours**HIST 610 SELECTED TOPICS IN BRITISH HIS 1 Credit hour****HIST 620 Civil War & Reconstruction 3 Credit hours**

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.

HIST 650 THE IDEA OF THE AMER FRONTIER 3 Credit hours**HIST 680 SELECTED TOPICS IN W. VA. HIST 1 Credit hour**

History (HST)

HST 501 History of Appalachia 3 Credit hours

This course will explore the historical and historiographical development of Appalachia and the economic, political, and cultural forces that have shaped the lives and communities of mountaineers.

Grade Mode: Normal Grading Mode

HST 505 Amer Diplomacy 1900-Pres 3 Credit hours

American foreign relations in the 20th century. The gradual retreat from isolation in the period between World Wars I and II and modern American involvement in international commitments will be stressed.

Grade Mode: Normal Grading Mode

HST 506 Tudor & Stuart England 3 Credit hours

A history of England under the Tudors and Stuarts, focusing primarily on demographic, social, cultural, and political developments.

Grade Mode: Normal Grading Mode

HST 507 History of Sexuality 3 Credit hours

Examines the history of sexuality in North America in the context of cultural, legal, economic, political, and social history from the 16th century to the present.

Grade Mode: Normal Grading Mode

HST 508 History of LGBT Peoples 3 Credit hours

A survey of gay, lesbian, bisexual and transgender history in the United States from the colonial period to the present.

Grade Mode: Normal Grading Mode

HST 509 American Revolution 3 Credit hours

A varied view of the American Revolution and its impact on the American people.

Grade Mode: Normal Grading Mode

HST 513 Hist Old South 1492-1860 3 Credit hours

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.

Grade Mode: Normal Grading Mode

HST 514 Am Civil War & Reconstruc 3 Credit hours

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.

Grade Mode: Normal Grading Mode

HST 515 Hist New South 1877-Pres 3 Credit hours

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.

Grade Mode: Normal Grading Mode

HST 517 U.S. West to 1900 3 Credit hours

A study of the social, cultural, political, and economic history of the US West to 1900, along with West's place in our public memory.

Grade Mode: Normal Grading Mode

HST 521 Renaissance & Reformation 3 Credit hours

The impact of the Renaissance upon esthetic, economic, and political developments especially 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.

Grade Mode: Normal Grading Mode

HST 524 US Science & Technology**3 Credit hours**

A study of the development and impact of science and technology in the U.S.

Grade Mode: Normal Grading Mode

HST 525 European Hist 1814-1914**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

HST 527 The World at War**3 Credit hours**

This course explores the Second World War. It probes the nexus of diplomacy, politics, ideology, military strategy and operations, economics, and technological innovation that generated a truly global "total war."

Grade Mode: Normal Grading Mode

HST 528 Intel & Cult Hist Mod Europe**3 Credit hours**

A survey of the main currents in European thought and culture in the 19th and 20th centuries.

Grade Mode: Normal Grading Mode

HST 530 Soviet Russia and Beyond**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

HST 531 America in the Gilded Age**3 Credit hours**

A study of America's transformation from a rural, agrarian nation into an urban, industrial world power, the final destruction of the American Indian, the settlement of the West, and the farmers' revolt.

Grade Mode: Normal Grading Mode

HST 534 The Vietnam War**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

HST 535 Modern Japan**3 Credit hours**

Begins with an overview of nineteenth century Japan and stresses the twentieth century rise of Japan to the position of world power.

Grade Mode: Normal Grading Mode

HST 536 Modern China**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

HST 537 Intro Public History**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

HST 538 Stuff and Things in History**3 Credit hours**

This 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.

Grade Mode: Normal Grading Mode

HST 539 Modern China Through Film**3 Credit hours**

Through a combination of film, lectures, discussions, and writings, the course will show how China took its unique path to modernization.

Grade Mode: Normal Grading Mode

HST 540 West Virginia History**3 Credit hours**

An interdisciplinary study of the state, its people and its institutions within the national context.

Grade Mode: Normal Grading Mode

HST 543 20th Century US Women's Hist**3 Credit hours**

This course explores the lives and experiences of US women in the 20th century, but always with an eye on power.

Grade Mode: Normal Grading Mode

HST 546 Rise of Atlantic World**3 Credit hours**

This course considers the expansion of Western Europe, beginning in the early 1400s, to Africa, Latin America, and other parts of the Atlantic world.

Grade Mode: Normal Grading Mode

HST 547 Film and Empire**3 Credit hours**

This course explores the nature and importance of empire through the reading of key texts and the study of selected films.

Grade Mode: Normal Grading Mode

HST 548 British History in Film**3 Credit hours**

This course explores selected aspects of British history through the study of films and key texts.

Grade Mode: Normal Grading Mode

HST 549 World War I in Film**3 Credit hours**

This course explores the origins, course, and meaning of World War I (1914-1918) through the use of selected films and readings.

Grade Mode: Normal Grading Mode

HST 553 The Kennedy Assassination**3 Credit hours**

This course explores the events surrounding the assassination of President John F. Kennedy.

Grade Mode: Normal Grading Mode

HST 554 History of Ireland**3 Credit hours**

This course covers the history of Ireland from the Middle Ages to the Present.

Grade Mode: Normal Grading Mode

HST 558 Spies in History**3 Credit hours**

This course explores the role played by spies and espionage in modern history.

Grade Mode: Normal Grading Mode

HST 580 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

HST 581 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

HST 582 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

HST 583 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

HST 585 Independent Study**1-4 Credit hours**

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

HST 586 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

HST 587 Independent Study**1-4 Credit hours**

Grade Mode: Normal Grading Mode

HST 588 Independent Study 1-4 Credit hours**Grade Mode:** Normal Grading Mode**HST 600 Methodology 3 Credit hours**

A research and writing seminar in which students are taught and must exhibit the skills and methodologies of practicing research historians.

Grade Mode: Normal Grading Mode**HST 601 Tudor England 1485-1603 3 Credit hours**

In this course students will examine in depth several selected themes in Tudor history through reading, class discussions, examinations, and a research paper.

Grade Mode: Normal Grading Mode**HST 602 Stuart England 1603-1714 3 Credit hours**

An analysis of the Social, Intellectual, Economic, Cultural, and Political History of England in the Stuart Century.

Grade Mode: Normal Grading Mode**HST 605 Social & Econ Prob Am Col 3 Credit hours**

A study of the English colonies America with emphasis on slavery, minorities, and social and economic change.

Grade Mode: Normal Grading Mode**HST 607 Prob Eur Hist 1890-1923 3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HST 610 Readings in History 2-3 Credit hours**

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.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**HST 632 Seminar in Reconstruction 3 Credit hours**

A reading and research course in which each student investigates a specific issue related to the reunification of the nation after the Civil War.

Grade Mode: Normal Grading Mode**HST 633 Prob Amer Hist 1877-1917 3 Credit hours**

A research course in which the student probes a selected problem within the chronological span, 1877-1917.

Grade Mode: Normal Grading Mode**HST 634 Prob Amer Hist Since 1917 3 Credit hours**

A research course in which a student probes a selected problem within the period since 1917.

Grade Mode: Normal Grading Mode**HST 635 Oral/Local History Seminar 3 Credit hours**

The course examines the field of oral history. Students will apply oral history methodology and other primary source documentation in researching a local topic. ques, the interview, processing of tapes, release form, ethics, and how to write grant proposals.

Grade Mode: Normal Grading Mode**HST 636 Seminar in Women's Hst 3 Credit hours**

A reading and research course in which the student investigates selected topics related to the history of women in America or Europe.

Grade Mode: Normal Grading Mode**HST 640 Archives and Special Coll 3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HST 650 Special Topics 1-4 Credit hours**

(PR: Permission of Instructor)

Grade Mode: Normal Grading Mode**HST 651 Special Topics 1-4 Credit hours**

(PR: Permission of Instructor)

Grade Mode: Normal Grading Mode**HST 679 Problem Report 1-3 Credit hours****Grade Mode:** Normal Grading Mode**HST 680 Public History Internship 1-6 Credit hours**

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.

Grade Mode: Normal Grading Mode**HST 681 Thesis 1-6 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode

Human Resource Management (HRM)

HRM 600 Development of Labor Relations 3 Credit hours

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)

Grade Mode: Normal Grading Mode**HRM 605 Human Resource Economics 3 Credit hours**

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 253 or ECN 501 plus GSM admission)

Grade Mode: Normal Grading Mode**HRM 610 Collective Bargaining 3 Credit hours**

A comprehensive survey of collective bargaining with special emphasis given to philosophy, structure and the process of negotiations. attention is also given to important developments and emerging trends in collective bargaining. (PR: HRM 600)

Grade Mode: Normal Grading Mode**HRM 615 Arbitration/Grievance Procedur 3 Credit hours**

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)

Grade Mode: Normal Grading Mode

HRM 625 HRIS and Knowledge Mgmt**3 Credit hours**

The development, use, and impact of Human Resource Information Systems and the management of organizational knowledge including knowledge management systems, procedures, policies, and other issues.

Grade Mode: Normal Grading Mode**HRM 630 Labor Law****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**HRM 632 HR for Special Population****3 Credit hours**

An introduction to disabilities focusing on adulthood and employment. The course includes a survey of disability laws, disabilities (physical, sensory, and cognitive), and workplace impacts (accessibility, assistive technology, accommodations).

Grade Mode: Normal Grading Mode**HRM 650 Industrial Psychology****3 Credit hours**

Survey of the applications of psychological principles and of research methodologies to the various human problems in industry, such as personnel selection and appraisal; the organizational and social context of human work; the job and work situation; human errors, accidents, and safety; and the psychological aspects of consumer behavior. (PR: GSM admission)

Grade Mode: Normal Grading Mode**HRM 660 Adm of Compen/Fringe Benefits****3 Credit hours**

The development and administration of wage and salary programs, and an analysis of both private and public health, welfare and pension plans. Topics investigated include motivation theory, factors influencing compensation levels, forms of compensation, including incentive plans and fringe benefits, a critical examination of financing, administration, and general effectiveness of the plans, special issues of managerial compensation, comparable worth, special and related issues. (PR: MGT 620 and GSM admission)

Grade Mode: Normal Grading Mode**HRM 670 Personnel Select & Trng****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**HRM 671 Human Resource Internship****3 Credit hours**

Project-oriented experience in Human Resources intended for those students with insufficient experience in the field. (PR: Permission of program director and HRM 600)

Pre-req: HRM 600.**Grade Mode:** Normal Grading Mode**HRM 675 Human Resource Devel & Trng****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**HRM 680 Labor Rel in Public Empl****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**HRM 698 Independent Study in Ind Rel****1-3 Credit hours**

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)

Grade Mode: Normal Grading Mode

Humanities (HUMN)

HUMN 530 Technology & the Humanities**3 Credit hours**

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

Grade Mode: Normal Grading Mode**HUMN 560 Staff Development****1-4 Credit hours**

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.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**HUMN 561 Staff Development****1-4 Credit hours**

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.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**HUMN 562 Staff Development****1-4 Credit hours**

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.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**HUMN 563 Staff Development****1-4 Credit hours**

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.

Attributes: Not Degree Applicable**Grade Mode:** Credit/No Credit Grade Only**HUMN 600 Intro to Study in Humanities****3 Credit hours**

Interdisciplinary core course addresses questions/concepts central to the humanities. Texts from philosophy, history, literature, the arts and in the sciences provide insights into selected historical periods. Open to non-degree students.

Grade Mode: Normal Grading Mode**HUMN 601 Literary Theory & Criticism****3 Credit hours**

Core course introduces modern critical approaches, concepts and methods of research and scholarship in the field of literature. Open to non-degree students.

Grade Mode: Normal Grading Mode

HUMN 602 Historical Studies**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HUMN 603 History & Theory of the Arts****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HUMN 604 Expository Wrtnng for Research****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**HUMN 605 Wstrn Trdtns/Contemp Cultures****3 Credit hours**

Using primary materials from different cultural periods, as well as contemporary critical analysis, this core course explores epistemological questions that underlie conflicts between cultures. Open to non-degree students.

Grade Mode: Normal Grading Mode**HUMN 650 Selected Topics****1-9 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**HUMN 660 Independent Study in Human****1-3 Credit hours**

Independent study in a particular area of interest. Open only to students near the end of their plans of study. Permission of program director is required

Grade Mode: Normal Grading Mode**HUMN 680 Independent Research Symposium****3 Credit hours**

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 projects. S-U grade.

Grade Mode: Satisfactory/Unsatisfactory**HUMN 681 Independent Research Symposium****3 Credit hours**

Prequisite: 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.

Grade Mode: Credit/No Credit Grade Only

Information Systems (IS)

IS 502 Advanced Programming**3 Credit hours****Grade Mode:** Normal Grading Mode**IS 510 Comptr Sys & Structured Prgm 2****3 Credit hours**

A continuation of IS 500. Topics include aglorithm develop- ment, manipulation of arrays and an introduction to dynamic data structures. (PR: IS 500 or consent)

Pre-req: IS 500.**Grade Mode:** Normal Grading Mode**IS 535 Applied Healthcare DB****3 Credit hours**

To understand the logical and physical design of data stored and retrieved from relational databases, how it applies to healthcare, and how HIM professionals can effectively communicate business requirements.

Grade Mode: Normal Grading Mode**IS 545 Healthcare Data Analytics****3 Credit hours**

The course focuses on the systems, techniques, strategies and methods of big data analysis, data mining and machine learning algorithms and data visualization in healthcare settings.

Grade Mode: Normal Grading Mode**IS 580 Special Topics****1-4 Credit hours**

Occasional offerings of current topics in information systems, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode**IS 581 Special Topics****1-4 Credit hours**

Occasional offerings of current topics in information systems, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode**IS 582 Special Topics****1-4 Credit hours**

Occasional offerings of current topics in information systems, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode**IS 583 Special Topics****1-4 Credit hours**

Occasional offerings of current topics in information systems, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode**IS 585 Independent Study****1-4 Credit hours**

An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode**IS 586 Independent Study****1-4 Credit hours**

An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode**IS 587 Independent Study****1-4 Credit hours**

An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode**IS 588 Independent Study****1-4 Credit hours**

An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode**IS 600 Management Information Systems****3 Credit hours**

The course examines personal, work group, and enterprise information systems with respect to their value, their components, and the process of developing them.

Grade Mode: Normal Grading Mode**IS 603 Program for Artificial Intell****3 Credit hours**

An introduction to programming for artificial intelligence applications using Prolog.

Grade Mode: Normal Grading Mode

IS 605 Systems Analysis and Design**3 Credit hours**

This course focuses on analysis and design of information systems. Topics include system development approaches, UML design, system integration, system-oriented architecture and foundation. 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)

Grade Mode: Normal Grading Mode**IS 610 Systems Quality Assurance****3 Credit hours**

This course will cover the steps in developing enterprise IT policies, standards, guidelines and procedures while ensuring quality and compliance responsible for the design, implementation, and evaluation, and monitoring of a comprehensive system. 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)

Pre-req: IS 605 or IS 605G.**Grade Mode:** Normal Grading Mode**IS 615 System Simulation****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**IS 618 Computer Appl in Engi & Sci I****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**IS 620 Intro to Operating Systems****3 Credit hours**

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)

Pre-req: IS 621 or IS 520G.**Grade Mode:** Normal Grading Mode**IS 621 Information Structures I****3 Credit hours**

Representation and manipulation of numeric and non-numeric information, linear lists, strings, multilinked structures; sorting and searching; storage management; data structures in programming language. Relevant aspects of discrete mathematics. (PR: IS 510 or equivalent)

Grade Mode: Normal Grading Mode**IS 622 Emerging Tech in Info Systems****3 Credit hours**

This course will explore the emerging technologies in information systems. These technologies are generally new but include older technologies that are still controversial and relatively undeveloped in potential (PR: IS 621) A continuation of IS 621. Tree, graph, and set structures; file structures for secondary storage; aspects of discrete mathematics. (PR: IS 621)

Pre-req: IS 621.**Grade Mode:** Normal Grading Mode**IS 623 Database Management****3 Credit hours**

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. (Prerequisite: IS 622 or consent)

Pre-req: IS 621 (may be taken concurrently).**Concurrent PR:** IS 621**Grade Mode:** Normal Grading Mode**IS 624 Data Warehousing****3 Credit hours**

A hand-on introduction to the concepts and techniques of data warehousing and data mining.

Pre-req: IS 623.**Grade Mode:** Normal Grading Mode**IS 625 Software Engineering****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**IS 630 Comp Arch & Assembly Lang****3 Credit hours**

An introduction to the composition and operation of electronic digital computers and to assembly language programming. (PR: IS 510 or equivalent)

Pre-req: IS 510.**Grade Mode:** Normal Grading Mode**IS 631 Information Security****3 Credit hours**

This course provides foundation knowledge in information security, including protecting information assets, risk mitigation strategies, response to security incidents, and designing secure systems.

Grade Mode: Normal Grading Mode**IS 635 Computer Graphics****3 Credit hours**

An introduction to the areas of computer graphics that are necessary to understand, evaluate, and develop graphics applications. (PR: Admission to program)

Pre-req: IS 500.**Grade Mode:** Normal Grading Mode**IS 640 Programming Languages****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**IS 645 Geographic Information Systems****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**IS 646 Computer Sys Security****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**IS 647 IT Disaster Plan and Recovery****3 Credit hours**

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.

Grade Mode: Normal Grading Mode

- IS 650 Special Topics** **1-4 Credit hours**
Different transmission media, digital communications, telecommunications services, types of networks and topologies, network protocols, components, and applications. (PR IS 521 or TM 660 or Permission)
Grade Mode: Normal Grading Mode
- IS 651 Special Topics** **1-4 Credit hours**
Varies according to interests of students and instructor. (PR: Consent)
Grade Mode: Normal Grading Mode
- IS 652 Special Topics** **1-4 Credit hours**
Varies according to interests of students and instructor. (PR: Consent)
Grade Mode: Normal Grading Mode
- IS 653 Special Topics** **1-4 Credit hours**
Occasional offerings of current topics in information systems, providing important supplementary material for participating students.
Grade Mode: Normal Grading Mode
- IS 655 Multimedia & Elec Dissem** **3 Credit hours**
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. (TM 660 or permission)
Grade Mode: Normal Grading Mode
- IS 656 Comm & Network Technologies** **3 Credit hours**
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)
Grade Mode: Normal Grading Mode
- IS 660 Models of Computation** **3 Credit hours**
Switching algebra and relationship to computers; finite automata; Turing machines; recursion; computability and unsolvability. (PR: IS 622, math maturity)
Grade Mode: Normal Grading Mode
- IS 665 Health Care Enterpr Info Syst** **3 Credit hours**
A hands-on introduction to using a health care enterprise information system providing students opportunity to work with elements of an EIS
Grade Mode: Normal Grading Mode
- IS 670 Lang Translators & Concepts** **3 Credit hours**
Formal language concepts, syntactic analysis; types of translators; detailed review of assemblers, interpreters, and compilers, and techniques of their construction. (PR: IS 622)
Grade Mode: Normal Grading Mode
- IS 680 Social Issues in Info Systems** **3 Credit hours**
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)
Grade Mode: Normal Grading Mode
- IS 681 Thesis** **1-6 Credit hours**
Investigate a research problem of theoretical interest and practical value under mentorship of a information systems and computer science faculty.
Grade Mode: Credit/No Credit Grade Only
- IS 685 Independent Study** **1-4 Credit hours**
An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.
Grade Mode: Normal Grading Mode
- IS 686 Independent Study** **1-4 Credit hours**
An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.
Grade Mode: Normal Grading Mode
- IS 687 Independent Study** **1-4 Credit hours**
An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.
Grade Mode: Normal Grading Mode
- IS 688 Independent Study** **1-4 Credit hours**
An approved study of special interest, that is appropriate for the student's program of study, concerning information systems. Carried out under the supervision of a faculty member.
Grade Mode: Normal Grading Mode
- IS 690 Prin of Artificial Intelligence** **3 Credit hours**
A survey of the field of artificial intelligence and expert systems. Students will work together designing and implementing a project. (PR: Permission)
Grade Mode: Normal Grading Mode
- IS 691 Comprehensive Project** **3 Credit hours**
Develop expertise in an emerging area of information systems through guided study under faculty mentorship.
Grade Mode: Credit/No Credit Grade Only
- IS 692 Image Processing** **3 Credit hours**
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.
Grade Mode: Normal Grading Mode
- IS 695 Expert Systems** **3 Credit hours**
A review of expert systems techniques and applications. Participants will develop small expert systems using several different personal computer expert systems development programs (shells)
Grade Mode: Normal Grading Mode
- IS 698 Internship** **1-3 Credit hours**
Supervised work experience in information systems or related fields.
Attributes: No Textbook Required
Grade Mode: Credit/No Credit Grade Only
- IS 699 Final Project** **1-6 Credit hours**
Grade Mode: Normal Grading Mode

Instruct Tech-Library Science (ITL)

ITL 501 Libraries & the Learn Process 3 Credit hours

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. Study of the development of libraries and information-storage technology, from early times to the present, with emphasis on the impact of computer-based systems.

Grade Mode: Normal Grading Mode

ITL 502 Library Mat for Adolsc 3 Credit hours

Course will focus on criteria for evaluating and selecting young adult materials for the purpose of developing and promoting a school library media collection.

Co-req: ITL 504

Grade Mode: Normal Grading Mode

ITL 504 Library Mat for Children 3 Credit hours

Addresses selection of material(s) for children in the school library; highlights & addresses strategies to fill curriculum gaps through collection development & curation. Survey of the print and nonprint materials for children, with emphasis on evaluating the aids and standards for selection, including books, periodicals, audiovisual materials, and computer software.

Co-req: ITL 502

Grade Mode: Normal Grading Mode

ITL 560 Professional Development 1-4 Credit hours

Course designed to meet the specific inservice needs of public school teachers, media personnel, and librarians. Credit may be used for certificate renewal and salary up- grading but not for degree programs.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

ITL 561 Professional Development 1-4 Credit hours

Source designed to meet the specific inservice needs of public school teachers, media personnel, and librarians. Credit may be used for certificate renewal and salary up- grading but not for degree programs.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

ITL 562 Professional Development 1-4 Credit hours

Source designed to meet the specific inservice needs of public school teachers, media personnel, and librarians. Credit may be used for certificate renewal and salary up- grading but not for degree programs.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

ITL 563 Professional Development 1-4 Credit hours

Source designed to meet the specific inservice needs of public school teachers, media personnel, and librarians. Credit may be used for certificate renewal and salary up- grading but not for degree programs.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

ITL 567 Media Skills Dev Inst 3 Credit hours

Basic techniques in producing and using a variety of audio- visual aids, i.e., photography, scripting, developing logos, audio-recording, and layout and design of manuals. This course also prepares one to produce a slide-tape presenta- tion.

Grade Mode: Normal Grading Mode

ITL 568 Computer Graphics in ITL 3 Credit hours

A basic course designed to assist the student in becoming familiar with a variety of software graphics packages.

Grade Mode: Normal Grading Mode

ITL 580 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

ITL 581 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

ITL 582 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

ITL 583 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

ITL 585 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

ITL 586 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

ITL 587 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

ITL 588 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

ITL 591 Workshop 1-4 Credit hours

Workshop in selected areas of educational media.

Grade Mode: Normal Grading Mode

ITL 592 Workshop 1-4 Credit hours

Workshop in selected areas of educational media.

Grade Mode: Normal Grading Mode

ITL 593 Workshop 1-4 Credit hours

Workshop in selected areas of educational media.

Grade Mode: Normal Grading Mode

ITL 594 Workshop 1-4 Credit hours

Workshop in selected areas of educational media.

Grade Mode: Normal Grading Mode

ITL 607 Library & the Curriculum 3 Credit hours

Survey of elementary and secondary school curricula with emphasis on materials which enrich the teaching of various subjects.

Grade Mode: Normal Grading Mode

ITL 610 Adv Adm Lib/Media Centers 3 Credit hours

Application of administrative techniques to processess and activities of various types of libraries and media centers.

Grade Mode: Normal Grading Mode

ITL 615 Advanced Reference 3 Credit hours

Study of specialized reference tools.

Grade Mode: Normal Grading Mode

ITL 620 Adv Catalog & Classifica 3 Credit hours

Covers Library of Congress and Dewey Decimal classification systems. Practice in detailed descriptive and subject cataloging of special materials, including nonprint materials.

Grade Mode: Normal Grading Mode

ITL 625 Library Organiza & Admin 3 Credit hours

Principles of administration for elementary and secondary school library media centers, including personnel, facilities, budgets, prgram planning and evaluation, publicity and public relations, audiovisual equipment and materials, computer hardware and software, and methods and materials for teaching library skills.

Grade Mode: Normal Grading Mode

ITL 627 Cataloging & Reference**3 Credit hours**

This course is a study of cataloging for the school library professional and the basic reference services for school libraries. Emphasis is on MARC records, circulation software, materials evaluation, the reference interview, and research strategies.

Grade Mode: Normal Grading Mode**ITL 630 Camcorder Utilization****3 Credit hours**

The participants develop the skills necessary to produce on-site instructional VHS videotapes and computer-generated instructor's guides.

Grade Mode: Normal Grading Mode**ITL 631 Technology and the Library****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**ITL 632 Media in Instruct Design****3 Credit hours**

Practical use of instructional design techniques in producing a slide/tape program along with instructor's guide.

Grade Mode: Normal Grading Mode**ITL 640 Readings Instruct Tech****3 Credit hours**

Readings and reports on significant publications in the educational media field, stressing print, nonprint, or both types of media. May be taken only once.

Grade Mode: Normal Grading Mode**ITL 641 Seminar****3 Credit hours**

Supervised program of readings, reports, and individual and group projects.

Grade Mode: Normal Grading Mode**ITL 650 Library Practice****3 Credit hours**

Experience in the application of techniques of library service, adapted as far as possible to the student's needs.

Grade Mode: Credit/No Credit Grade Only**ITL 679 Problem Report****3 Credit hours**

Preparation of a written, filmed, graphic or similar research project. Must be completed by those who later enroll for ITL 681, Thesis, but is not restricted to such persons.

Grade Mode: Normal Grading Mode**ITL 681 Thesis****3 Credit hours**

Available only to those whose work in ITL 679 was exemplary and worthy of expansion. Successful completion of ITL 679 and ITL 681 reduces the total credit hours required for the degree by three hours.

Grade Mode: Normal Grading Mode

Integrated Sci & Technology (IST)

IST 580 Special Topics**1-4 Credit hours**

Courses on special topics not listed among the current course offerings.

Grade Mode: Normal Grading Mode**IST 581 Special Topics****1-4 Credit hours**

Courses on special topics not listed among the current course offerings.

Grade Mode: Normal Grading Mode**IST 582 Special Topics****1-4 Credit hours**

Courses on special topics not listed among the current course offerings.

Grade Mode: Normal Grading Mode**IST 583 Special Topics****1-4 Credit hours**

Courses on special topics not listed among the current course offerings.

Grade Mode: Normal Grading Mode**IST 585 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**IST 586 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**IST 587 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**IST 588 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode

Interdisciplinary Medicine (IDM)

IDM 700 Medical Humanities**1-18 Credit hours****Grade Mode:** Pass/Fail Grading Mode**IDM 710 Communication in Medicine****1 Credit hour****Grade Mode:** Pass/Fail Grading Mode**IDM 715 Intro to Clinical Skills****1-18 Credit hours**

This course introduces students to the major health problems of specific populations and integrates clinical, preventive and health promotion dimensions of each problem.

Grade Mode: Normal Grading Mode**IDM 716 Intro to Patient Care II****1-18 Credit hours****Grade Mode:** Normal Grading Mode**IDM 717 IPC III****1 Credit hour**

This course is an extension of Introduction to Patient Care I & II in which students continue with their assigned clinical mentors and participate in five clinical experiences. Students may opt to continue their clinical experiences through summer externships.

Grade Mode: Pass/Fail Grading Mode**IDM 718 Intro to Patient Care IV****1 Credit hour****Grade Mode:** Pass/Fail Grading Mode**IDM 720 Medical Cell & Molecular Bio****2 Credit hours****Grade Mode:** Normal Grading Mode**IDM 724 Human Genetics****2 Credit hours**

An introduction to the study of heritable diseases, their molecular basis and their detection and treatment, including presentation of clinical cases.

Grade Mode: Normal Grading Mode**IDM 725 Molecular Basis of Medicine****8 Credit hours****Grade Mode:** Normal Grading Mode**IDM 730 Clinical Orientation****1-18 Credit hours**

The course is an introduction to primary care medicine, clinical responsibilities, and clinical orientation prior to beginning required third-year rotations.

Grade Mode: Pass/Fail Grading Mode**IDM 740 Marshall Pri Care Curr (MPCC)****1-24 Credit hours****Grade Mode:** Normal Grading Mode

IDM 744 Senior Symposium Grade Mode: Pass/Fail Grading Mode	1-18 Credit hours	JMC 501 Multi-Media Writing Principles and techniques of cross-media news writing for graduate student reporters and public relations professionals who have no prior experience in news writing. Grade Mode: Normal Grading Mode	3 Credit hours
IDM 745 Pre-Comm Based Clin Exper Grade Mode: Normal Grading Mode	1-24 Credit hours	JMC 502 Law of Mass Communication Legal aspects of mass communications as they apply to the professional journalist. Grade Mode: Normal Grading Mode	3 Credit hours
IDM 750 Comm-Based Clin Internship Grade Mode: Normal Grading Mode	1-48 Credit hours	JMC 504 Hist Am JRN & Mass Comm The development of the press in the United States, the contributions of American journalist, the rise of radio and television, and the relationship of communication developments to political, economic and social trends in America. Grade Mode: Normal Grading Mode	3 Credit hours
IDM 760 Biomedical Ethics I Grade Mode: Pass/Fail Grading Mode	1 Credit hour	JMC 506 Branding Creative direction in developing the personality, reputation, appearance and character of great brand consistent in all aspects of a brand. Grade Mode: Normal Grading Mode	3 Credit hours
IDM 761 Biomedical Ethics II Grade Mode: Pass/Fail Grading Mode	1 Credit hour	JMC 508 Research and Analytics Introduction to methods and tools used to monitor, inform and evaluate advertising-public relations decisions including applications of research methods and analytics. Grade Mode: Normal Grading Mode	3 Credit hours
IDM 762 Biomedical Ethics III Grade Mode: Pass/Fail Grading Mode	1 Credit hour	JMC 510 Magazine Editorial Prac Study of the organization, and functions of the magazine editorial department, with practice in planning magazine content, laying out pages and establishing production procedures. Grade Mode: Normal Grading Mode	3 Credit hours
IDM 763 Biomedical Ethics IV Grade Mode: Pass/Fail Grading Mode	1 Credit hour	JMC 514 Reporting Public Affairs Advanced instruction in cross media reporting local, state, and federal government; politics, finance, and labor; social and environmental issues, with emphasis on background and interpretation. Course includes field trips and guest speakers. Grade Mode: Normal Grading Mode	3 Credit hours
IDM 777 Neuroscience The structure and function of the Nervous System. Grade Mode: Normal Grading Mode	6 Credit hours	JMC 515 Content Strategy Students will analyze advertising-public relations content problems, propose strategic solutions, create content and present strategies. Students will write, design and produce content for a variety of media. 3 hours. Grade Mode: Normal Grading Mode	3 Credit hours
IDM 785 Independent Study A course offered to medical students on special curricula or to students with learning disabilities. Grade Mode: Pass/Fail Grading Mode	1-18 Credit hours	JMC 524 Media Strategy Focuses on the delivery of advertising-public relations messages with attention to the development of audience personas, content management and analytics for traditional, digital and social media. Grade Mode: Normal Grading Mode	3 Credit hours
IDM 800 Clinical Teachnig Practicum Grade Mode: Pass/Fail Grading Mode	1-18 Credit hours	JMC 530 Magazine Article Writing Fundamentals of researching and writing popular, factual magazine articles; techniques of selling articles to maga- zines. Grade Mode: Normal Grading Mode	3 Credit hours
IDM 801 Academic Medicine This elective is designed to nurture the interest and to develop skills for a career in academic medicine. Grade Mode: Pass/Fail Grading Mode	1-18 Credit hours		
IDM 802 Medical Career Development Introduces 4th year medical students to the four career planning components of the AAMC/Careers in Medicine program with emphasis on interviewing and preparing for the residency application process. Grade Mode: Pass/Fail Grading Mode	1 Credit hour		
IDM 875 Comp Review Clinical Med USMLE Step II Exam Prep Course Grade Mode: Normal Grading Mode	1-18 Credit hours		
IDM 890 Advanced Clinical Pract FCH Grade Mode: Normal Grading Mode	1-36 Credit hours		
IDM 898 History of Medicine This course is intended for medical students interested in the foundational history of medicine and medical thought up through the current age of modern medical technology. This course will seek to add to the student's appreciation for the trials and tribulations of the medical entrepreneurs and scientists who have brought modern medicine to its current standards. Grade Mode: Normal Grading Mode	2 Credit hours		
IDM 899 Medical Education Practicum Grade Mode: Normal Grading Mode	2 Credit hours		

Journalism & Mass Comm. (JMC)

JMC 500 Digital Imaging II **3 Credit hours**
Advanced methods of taking and editing still and video images for print, broadcast and online publication.
Grade Mode: Normal Grading Mode

JMC 532 AD-PR Video Production**3 Credit hours**

Students will create and produce various informational, promotional, and training videos for companies and organizations. Students will learn to make and critique AD-PR videos that inform, persuade and entertain. Development of the use of video for communication and instruction in businesses, agencies, and education. Production and utilization of video units for specific objectives.

Grade Mode: Normal Grading Mode**JMC 534 Advanced Video****3 Credit hours**

Development of the elements necessary for the production of detailed video projects. Students study the creation and production of public affairs, educational and creative video programming. (PR: JMC 332)

Grade Mode: Normal Grading Mode**JMC 536 International Mass Comm****3 Credit hours**

Development of various systems of mass communications and comparison with the United States.

Grade Mode: Normal Grading Mode**JMC 537 Public Relations Planning****3 Credit hours**

Public relations planning, writing and pitching of strategies and tactics to clients.

Grade Mode: Normal Grading Mode**JMC 538 Public Relations Case Studies****3 Credit hours**

Examination of the handling of public relations problems and opportunities by business, educational, governmental, and social organizations, with particular emphasis on public relations analysis and problem solving. (PR JRN 330)

Grade Mode: Normal Grading Mode**JMC 539 AD-PR Campaigns****3 Credit hours**

Students function as an AD-PR firm that researches, plans, implements, and evaluates advertising and public relations campaigns for clients.

Pre-req: JMC 537 and JMC 538.**Grade Mode:** Normal Grading Mode**JMC 550 Contemp Issues Radio-TV****3 Credit hours**

An examination of the current political, social, economic and legal issues affecting the decision making process in the newsrooms and programming centers of the electronic media. (PR: Jr. standing)

Grade Mode: Normal Grading Mode**JMC 551 Television Reporting I****3 Credit hours**

Students report, shoot, edit, write, produce, and anchor "MU Report," a student-produced newscast. The class makes use of university broadcast facilities and West Virginia Public Television as available.

Grade Mode: Normal Grading Mode**JMC 552 Advanced TV Reporting****3 Credit hours**

Students report, shoot, edit, write, produce, and anchor "MU Report," a student-produced newscast, on a more advanced level. The class makes use of university broadcast facilities and West Virginia Public Television as available.

Pre-req: JMC 551.**Grade Mode:** Normal Grading Mode**JMC 555 Race Gender & Mass Media****3 Credit hours**

A seminar that explores the participation of women and people of color in mass media; representations of gender and race are examined.

Grade Mode: Normal Grading Mode**JMC 562 Web Design for Mass Media****3 Credit hours**

Creative and practical aspects of typography, design and interactivity of online communications for the mass media.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**JMC 568 Environmental Mass Comm****3 Credit hours**

Identifying, analyzing and discussing issues that challenge environmental communications, strategizing the creation of comprehensible environmental messages and examining philosophies that underpin environmental communications.

Grade Mode: Normal Grading Mode**JMC 575 Documentary Journalism****3 Credit hours**

Students will produce an original 15-minute film, defend their filmmaking technique in an oral presentation, and perform an in-depth written and oral presentation on one filmmaker.

Grade Mode: Normal Grading Mode**JMC 580 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**JMC 581 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**JMC 585 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**JMC 586 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**JMC 587 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**JMC 588 Independent Study****1-4 Credit hours****Grade Mode:** Normal Grading Mode**JMC 590 Jrn & Mass Comm Internship I****1-3 Credit hours**

Supervised journalistic work with the professional media. Course is for students without substantial professional media experience. Arrangements must be made in advance the School of Journalism internship director.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**JMC 591 Jrn & Mass Comm Intern II****1-3 Credit hours**

Supervised journalistic or mass communications work with professional media including newspapers, magazines, radio, television, advertising and public relations departments or agencies. Students must have completed a previous internship. (PR: Permission and JMC 590)

Grade Mode: Normal Grading Mode**JMC 600 Proseminar in Mass Comm****3 Credit hours**

Introduction to the graduate studies for mass communicators. Emphasis on theories and methods used to investigate human/mediated communication in social science. Includes introductions to vocabulary, research, protocol and presentation.

Grade Mode: Normal Grading Mode**JMC 601 Theory of Mass Comm****3 Credit hours**

Major theoretical concepts in mass communications are studied as a basis for understanding the communications process and the institutional impact of the mass media on the individual and on society. Required of all majors.

Grade Mode: Normal Grading Mode

JMC 602 Mass Comm Research & Methods	3 Credit hours	JMC 678 Organization Storytelling	3 Credit hours
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.		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.	
Pre-req: JMC 601 and EDF 517 or PSY 517.		Grade Mode: Normal Grading Mode	
JMC 603 Media Management	3 Credit hours	JMC 681 Thesis	1-6 Credit hours
An in-depth examination of the process and practice of media management.		Attributes: No Textbook Required	
Grade Mode: Normal Grading Mode		Grade Mode: Credit/No Credit Grade Only	
JMC 604 Law and Ethics	3 Credit hours	JMC 682 Master's Initiative	6 Credit hours
The course examines the legal framework of American media from an ethical perspective. It also covers a basic framework of both the law and ethics.		Creation of a non-traditional digital thesis in an applicable professional or scholarly subject through intensive research and creative technique.	
Grade Mode: Normal Grading Mode		Grade Mode: Credit/No Credit Grade Only	
JMC 605 Master's Network	3 Credit hours	JMC 685 Independent Study	1-4 Credit hours
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 Project.		Attributes: No Textbook Required	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
Latin (LAT)			
JMC 609 Sem In Public Relations	3 Credit hours	LAT 503 Roman Comedy	3 Credit hours
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.		(PR: 6 hours of Latin literature numbered 304 or above or equivalent)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
JMC 612 Hist Mass Communications	3 Credit hours	LAT 504 Roman Elegy: Prop & Tib	3 Credit hours
Analysis of mass media development in the United States and of current media problems, with emphasis on research.		Close readings in Latin of selections from the elegies of Propertius and Tibullus.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
JMC 620 PR in Health Care	3 Credit hours	LAT 509 Roman Satire: Hor, Mart, Juv	3 Credit hours
This JMC course examines public relations practices and techniques used in health care.		Close readings in Latin of selections from the satires of Horace and Juvenal and the epigrams of Martial.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
JMC 630 Seminar Media Criticism	3 Credit hours	LAT 510 Tacitus: Annals Agricola	3 Credit hours
Intensive critical analysis of broadcasting programs and programming procedures from the sociocultural, literary, political and industry points of view. (PR: JMC 433 or JMC 533 or equivalent)		(PR: 6 hours of Latin literature numbered 304 or above or equivalent)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
JMC 640 Design Thinking	3 Credit hours	LAT 580 Special Topics	1-4 Credit hours
This course engages students in the human-centered design thinking process for the innovative transformation of products and services.		(PR: 6 hours of literature numbered 304 or above or equivalent and consent of instructor)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
JMC 641 Web Strategies for JMC	3 Credit hours	LAT 581 Special Topics	1-4 Credit hours
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.		(PR: 6 hours of literature numbered 304 or above or equivalent and consent of instructor)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
JMC 643 New Media Cultures	3 Credit hours	LAT 582 Special Topics	1-4 Credit hours
This course investigates the political, economic, and cultural influences of new communications technologies, both in history and in today's world.		(PR: 6 hours of literature numbered 304 or above or equivalent and consent of instructor)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
JMC 650 Special Topics	1-3 Credit hours	LAT 583 Special Topics	1-4 Credit hours
Grade Mode: Normal Grading Mode		(PR: 6 hours of literature numbered 304 or above or equivalent and consent of instructor)	
JMC 651 Special Topics	1-3 Credit hours	LAT 585 Independent Study	1-4 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
		LAT 586 Independent Study	1-4 Credit hours
		Grade Mode: Normal Grading Mode	
		LAT 587 Independent Study	1-4 Credit hours
		Grade Mode: Normal Grading Mode	

LAT 588 Independent Study 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 625 Hist & Dev Latin Language 3 Credit hours
 This course examines the linguistic, geographic, cultural and material concerns that influenced the development of the Latin Language.
Grade Mode: Normal Grading Mode

LAT 640 Advanced Prose Comp 3 Credit hours
 A close study of advanced Latin grammar and style through composition in Latin.
Grade Mode: Normal Grading Mode

LAT 660 Special Author Lat Lit 3 Credit hours
 A detailed study in Latin of a single author. Special attention will be given to style, genre, literary and cultural contexts, and the study of secondary sources on the author.
Grade Mode: Normal Grading Mode

LAT 661 Special Author in Lat Lit 3 Credit hours
 A detailed study in Latin of a single author. Special attention will be given to style, genre, literary and cultural contexts, and study of secondary sources on the author.
Grade Mode: Normal Grading Mode

LAT 662 Special Author in Lat Lit 3 Credit hours
 A detailed study in Latin of a single author. Special attention will be given to style, genre, literary and cultural contexts, and study of secondary sources on the author.
Grade Mode: Normal Grading Mode

LAT 663 Special Author in Lat Lit 3 Credit hours
 A detailed study in Latin of a single author. Special attention will be given to style, genre, literary and cultural contexts, and study of secondary sources on the author.
Grade Mode: Normal Grading Mode

LAT 664 Special Author Lat Lit 3 Credit hours
 A detailed study in Latin of a single author. Special attention will be given to style, genre, literary and cultural contexts, and study of secondary sources on the author.
Grade Mode: Normal Grading Mode

LAT 665 Special Author Lat Lit 3 Credit hours
 A detailed study in Latin of a single author. Special attention will be given to style, genre, literary and cultural contexts, and study of secondary sources on the author.
Grade Mode: Normal Grading Mode

LAT 681 Thesis 1-6 Credit hours
Grade Mode: Normal Grading Mode

LAT 682 Special Topics Lat Lit 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 683 Special Topics in Latin Lit 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 685 Independent Study in Lat Lit 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 686 Independent Study in Lat Lit 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 687 Independent Study in Lat Lit 1-4 Credit hours
Grade Mode: Normal Grading Mode

LAT 688 Independent Study in Lat Lit 1-4 Credit hours
Grade Mode: Normal Grading Mode

Leadership Studies (LS)

LS 510 Principalship:Role & Tasks 3 Credit hours
 The Principalship is the study of school management as it relates to ethical behavior, and to support services, information systems, fiscal matters, and facility utilization and maintenance.
Grade Mode: Normal Grading Mode

LS 515 Curric and Instr Leadership 3 Credit hours
 The development and/or upgrading of supervisory practices in the areas of instructional leadership, instructional program development, instructional strategies, implementation and evaluation, and human relations.
Grade Mode: Normal Grading Mode

LS 520 Admin Elem Mdle & Sec Schools 3 Credit hours
 An investigation of the effects of the unique physical, social, mental, and moral characteristics of pre, early, and adolescent children on educational processes, organizations, and personnel.
Grade Mode: Normal Grading Mode

LS 530 Human Rel Skills for Leaders 3 Credit hours
 This course assesses and develops students' knowledge and skills in interpersonal relations and ethical practices. It provides structured experiences in group processes, verbal and non-verbal communications leadership styles, and team building.
Grade Mode: Normal Grading Mode

LS 550 Schools as Systems 3 Credit hours
 Assesses and develops student's knowledge and skills in change strategies, school cultures, systems theory, and understanding of the school in relation to other systems, agencies, and organizations.
Grade Mode: Normal Grading Mode

LS 558 School Law and the Teacher 3 Credit hours
Grade Mode: Normal Grading Mode

LS 561 Professional Development 1-4 Credit hours
 These courses and activities are designed to meet the specific in-service needs of public school administrators. Credit in these courses may be used for certificate renewal and salary upgrading but not in degree programs.
Attributes: Not Degree Applicable
Grade Mode: Credit/No Credit Grade Only

LS 562 Professional Development 1-4 Credit hours
 These courses and activities are designed to meet the specific in-service needs of public school administrators. Credit in these courses may be used for certificate renewal and salary upgrading but not in degree programs.
Attributes: Not Degree Applicable
Grade Mode: Credit/No Credit Grade Only

LS 563 Staff Development 1-4 Credit hours
 These courses and activities are designed to meet the specific in-service needs of public school administrators. Credit in these courses may be used for certificate renewal and salary upgrading but not in degree programs.
Attributes: Not Degree Applicable
Grade Mode: Credit/No Credit Grade Only

LS 580 Special Topics in Leadership 1-9 Credit hours
 To provide the master's level student an opportunity to examine selected issues in leadership and to apply their findings to the field of study.
Grade Mode: Normal Grading Mode

LS 585 Independent Study	1-4 Credit hours	LS 615 Leadership in Public Sector	3 Credit hours
Approval of Program Director and Permission of chair. Student must have a GPA of 3.0 to take class.		This course will enable public sector leaders to better understand the perspectives they bring to the setting, define and evaluate personal and organizational goals, and develop strategies to achieve shared goals.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
LS 586 Independent Study	1-4 Credit hours	LS 616 Higher Ed Governance	3 Credit hours
Approval of Program Director and Permission of chair. Student must have a GPA of 3.0 to take class.		This course is designed to develop an understanding of the structure of governance of multi-campus public higher education systems.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
LS 587 Independent Study	1-4 Credit hours	LS 617 Intro Stu Pers Adm/Higher Ed	3 Credit hours
Approval of Program Director and Permission of chair. Student must have a GPA of 3.0 to take class.		This course surveys the purpose and functions of student personnel administration in higher educational institutions and the administrative procedures developed to accomplish these purposes.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
LS 588 Independent Study	1-4 Credit hours	LS 618 History of Higher Education	3 Credit hours
Approval of Program Director and Permission of chair. Student must have a GPA of 3.0 to take class.		This course will present a historical overview of the factors that influence the development of higher education in America.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
LS 600 School Personnel Administra	3 Credit hours	LS 621 Pub Policy Analysis Higher Ed	3 Credit hours
This course offers an examination of personnel functions including recruitment, selection, orientation, evaluation, and retention with particular emphasis on staff development.		This course will introduce students to the process of developing federal and state public policy for higher education and examine legislation related to governance, finance, and oversight.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
LS 604 CTE Leadership Studies I	3 Credit hours	LS 625 Human Resources Management	3 Credit hours
Leadership preparation for career and technical education programs located at technical centers and/or high schools. Students will study career and technical education policies, funding sources, and accountability within Simulated Workplace.		This course develops knowledge of the major functions and tasks necessary for the development of human resources.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
LS 606 Plan Res & Eval for Sch Lead	3 Credit hours	LS 626 Fundraising Management	3 Credit hours
This course is designed to avail potential school administrators with an understanding of planning strategies, academic research, action research, and program evaluation methods, with the intent of their being able to write a cogent, data-based school improvement plan.		This course will provide students with an overview of the fundamentals of fundraising including such vehicles as major campaigns, donor research, management practices, and ethical issues.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
LS 608 CTE Leadership Studies II	3 Credit hours	LS 628 Nonprofit & Public Sector Orgs	3 Credit hours
Leadership preparation for career and technical education programs located at technical centers and/or high schools. Students will study career/technical education initiatives, importance of advisory committees, and economics of Simulated Workplaces.		Nonprofit & public sector organizations constitute a significant part of every community and this course is designed to examine the major leadership issues they encounter.	
Pre-req: LS 604 with a minimum grade of D.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		LS 630 The School and the Community	3 Credit hours
LS 610 Leadership for Sch Improve	3 Credit hours	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.	
Leadership preparation for developing and implementing a shared vision and strategic plans focused on teaching and learning, implementing change, applying leadership theory and acting with understanding of society's influences.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		LS 632 Human Rel in Public Sec	3 Credit hours
LS 612 Educ Tech for Administrators	3 Credit hours	This course is designed to assist leaders in the public sector to establish and maintain positive relationships with the organization's staff and volunteers, as well as with its constituents.	
This course addresses the role of the principal in the development and implementation of school curriculum. This includes developmentally appropriate curriculum design, special education curriculum and modifications, the integration of technology, and authentic assessment.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		LS 635 Organizational Theory	3 Credit hours
		This course analyzes leadership theories and their application to leadership and management in nonprofit and public sector organizations.	
		Grade Mode: Normal Grading Mode	

- LS 640 Legal Issues NPO & Public** **3 Credit hours**
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 CEO's, staff, governing boards.
Grade Mode: Normal Grading Mode
- LS 645 Comm Collaborative Plan Mgmt** **3 Credit hours**
Students will be provided with the opportunity to analyze the nature of collaboration among state, local, 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.
Grade Mode: Normal Grading Mode
- LS 647 Adult & Continuing Educa** **3 Credit hours**
This course develops an understanding of the principles, concepts, and processes involved in planning learning experiences for adults within the framework of higher education.
Grade Mode: Normal Grading Mode
- LS 650 Internship-School Management 1** **3 Credit hours**
Grade Mode: Normal Grading Mode
- LS 655 Externship** **1-9 Credit hours**
This is a field-based course designed for practicing professionals.
Grade Mode: Normal Grading Mode
- LS 660 Capstone: School Management** **3 Credit hours**
Grade Mode: Normal Grading Mode
- LS 661 Internship-Instr Supervision 2** **3 Credit hours**
Grade Mode: Normal Grading Mode
- LS 675 Legal and Policy Issues** **3 Credit hours**
This course examines the principal's role and responsibility related to law and administrative policy.
Grade Mode: Normal Grading Mode
- LS 685 Capstone: Portfolio Assessment** **3 Credit hours**
Training and assessment experiences for students seeking initial certification as a school principal.
Grade Mode: Normal Grading Mode
- LS 690 Leadership Capstone Course** **3 Credit hours**
This course represents a culminating experience and an opportunity to demonstrate a broad mastery of learning across the respective program curriculum.
Grade Mode: Normal Grading Mode
- LS 691 The Attendance Director** **3 Credit hours**
This course develops the administrative skills required for managing policies, programs, and activities related to the position of public school social worker or attendance director.
Grade Mode: Normal Grading Mode
- LS 692 Capstone: School Social Serv** **3 Credit hours**
This course provides pre-service training and assesment for students seeking licensure as a public school social worker/ attendance director.
Pre-req: LS 691.
Grade Mode: Normal Grading Mode
- LS 693 Sch Law for Support Personnel** **3 Credit hours**
This course provides the student with a working knowledge of school law and other legal matters as it pertains to the attendance director. The focus of this course is on those laws dealing with mandatory attendance and juvenile matters. (PR: Admission into the Social Services/Attendance Program)
Grade Mode: Normal Grading Mode
- LS 700 Superintendency** **3 Credit hours**
This course examines the roles, relationships, behaviors and competencies which characterize school superintendents and their staffs.
Grade Mode: Normal Grading Mode
- LS 701 Internship-Begng Supertndncy** **3 Credit hours**
Grade Mode: Normal Grading Mode
- LS 704 LDSH SP POP** **3 Credit hours**
This course identifies and explains the laws and policies that service students with special needs. School leaders will learn to apply these laws to ensure they meet students' needs while making the best decisions for their school.
Grade Mode: Normal Grading Mode
- LS 705 Administration Theory** **3 Credit hours**
This course analyzes administrative theories and their application to organizational leadership and management.
Grade Mode: Normal Grading Mode
- LS 707 Ethical Theory** **3 Credit hours**
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.
Grade Mode: Normal Grading Mode
- LS 708 Comparative Study Comm Coll** **3 Credit hours**
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.
Grade Mode: Normal Grading Mode
- LS 710 Principles of Leadership** **3 Credit hours**
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.
Attributes: Online Course
Grade Mode: Normal Grading Mode
- LS 711 School Leadership Practices 1** **3 Credit hours**
Grade Mode: Normal Grading Mode
- LS 712 School Leadership Practices 2** **3 Credit hours**
Grade Mode: Normal Grading Mode
- LS 714 Higher Ed Admin** **3 Credit hours**
This course is a survey of higher education with attention to administrative functions at the campus and state levels.
Grade Mode: Normal Grading Mode
- LS 715 Computer & School Management** **3 Credit hours**
Grade Mode: Normal Grading Mode
- LS 716 Higher Ed Governance** **3 Credit hours**
This class will review different models for governing public higher education at a system level and will examine the changing nature of higher education.
Grade Mode: Normal Grading Mode
- LS 717 Intro Stu Pers Adm/Higher Ed** **3 Credit hours**
This course surveys the purpose and functions of student personnel administration in higher educational institutions and the administrative procedures developed to accomplish these purposes.
Grade Mode: Normal Grading Mode

LS 718 Hist of Higher Ed**3 Credit hours**

This course is designed to provide the student with an understanding of the historical development of American higher education. It will examine past and future issues that have or may affect higher education.

Grade Mode: Normal Grading Mode**LS 720 Financial Models in Education****3 Credit hours**

This course examines concepts in the financing and economics of education in multiple education environments.

Grade Mode: Normal Grading Mode**LS 724 Organizational Analysis****3 Credit hours**

This course is an interdisciplinary approach to the study of organizational structure, relationships, and functions focusing on problems and alternatives for solving them.

Grade Mode: Normal Grading Mode**LS 726 Institutional Adv in High Ed****3 Credit hours**

Students will understand the broad area of institutional advancement, including major campaigns, donor research, donor recognition programs, restricted gifts, and so forth.

Grade Mode: Normal Grading Mode**LS 730 Educational Facility Planning****3 Credit hours**

This course teaches the systematic collection and utilization of data in planning for educational facilities. (PR: Principal or supervisor certificate or consent)

Grade Mode: Normal Grading Mode**LS 740 Legal Issues in Education****3 Credit hours**

This course examines various legal issues in education in multiple education environments.

Grade Mode: Normal Grading Mode**LS 747 Admin of Comm Colleges****3 Credit hours**

An analysis of community college governance, structure, functions, and relationship with its respective community and local/state government.

Grade Mode: Normal Grading Mode**LS 755 Internship-Admin of Higher Ed****3 Credit hours**

This course provides a field experience in higher education administration. (PR: Consent)

Grade Mode: Normal Grading Mode**LS 756 Current Issues in Leadership****3 Credit hours**

The course focuses on current and emerging problems of leadership among varied organizational types.

Grade Mode: Normal Grading Mode**LS 760 Politics of Education****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**LS 762 Higher Ed Politics****3 Credit hours**

This course is designed to make students familiar with the basic concepts and tools of politics. The course will apply these political concepts to higher education.

Grade Mode: Normal Grading Mode**LS 764 Adv Research I****3 Credit hours**

This class for doctoral candidates will develop a foundation in research methods, research ethics, and research skills.

Grade Mode: Credit/No Credit Grade Only**LS 765 Adv Res II in Lead Studies****3 Credit hours**

This is an advanced research course directed toward the preparation of a thesis or dissertation. (PR: Consent)

Grade Mode: Credit/No Credit Grade Only**LS 770 Practicum****3 Credit hours**

This is a highly individualized cooperative educational administration experience between the college and another public agency. (PR: Consent)

Grade Mode: Normal Grading Mode**LS 771 School District Leadership 1****3 Credit hours**

This is an individualized cooperative field experience in district level school administration. (PR: Consent)

Grade Mode: Normal Grading Mode**LS 772 School District Leadership 2****3 Credit hours**

This is an individualized cooperative field experience in district level school administration. (PR: Consent)

Grade Mode: Normal Grading Mode**LS 775 Seminar****3 Credit hours**

This course is a concentrated analysis of current problems in educational administration. (PR: Consent)

Grade Mode: Normal Grading Mode**LS 780 Special Topics****1-6 Credit hours**

This course requires study, reading and research is an approved area of education and supervision. (PR: Consent)

Grade Mode: Normal Grading Mode**LS 785 Externship****1-9 Credit hours**

This is a field based program designed for practicing administrators. (PR: Consent)

Grade Mode: Normal Grading Mode**LS 787 Cont First Amendment Issues****3 Credit hours**

This course will examine contemporary first amendment issues as they relate to education in public education and higher education.

Grade Mode: Normal Grading Mode**LS 790 Dissertation Research****1-9 Credit hours****Grade Mode:** Normal Grading Mode**LS 792 MU Research Colloquium****3 Credit hours****Grade Mode:** Normal Grading Mode**LS 797 Dissertation Research****1-9 Credit hours**

Dissertation research is the purpose of this course. (PR: Consent)

Grade Mode: Credit/No Credit Grade Only

Legal Environment (LE)

LE 691 Gov Bus Relationships**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

Literary Studies (LITS)

LITS 510 Comparative Approaches to Lit**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

LITS 520 Creative Wrtnng/Pract Criticism**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**LITS 522 Selected Topics in Writing****3 Credit hours**

The study of selected topics in writing (e.g., the expository essay, screen-writing, techniques of editing, etc.)

Grade Mode: Normal Grading Mode**LITS 540 Studies in Mythology/Folklore****1-6 Credit hours**

Selected topics in mythology and folklore (e.g., folk drama, folk tale, folk art). May be repeated for a maximum of 6 hours.

Grade Mode: Normal Grading Mode**LITS 580 Literature for Teachers****3 Credit hours**

Study and appreciation of selected works with special reference to the high school curriculum.

Grade Mode: Normal Grading Mode**LITS 600 Sel Topics in Literary Studies****1-6 Credit hours****Grade Mode:** Normal Grading Mode**LITS 615 Modern Southern Literature****3 Credit hours**

Course surveys important figures in Southern literature since the Southern Literary Renaissance of the 1920's and the Agrarian and Fugitive Movements.

Grade Mode: Normal Grading Mode**LITS 625 Shakespeare:Text,Stage & Film****3 Credit hours**

Focusing on selected Shakespearean plays, this course considers recent critical interpretations and explores how these have influenced stage and film productions. Contemporary adaptations of the plays will also be considered.

Grade Mode: Normal Grading Mode**LITS 636 Lit/Soc in Late 18 C England****3 Credit hours**

This course examines biographies, social, political and scientific writing, literary texts and the arts from 1750- 1800 to understand English culture and the eighteenth- century world.

Grade Mode: Normal Grading Mode**LITS 660 Modern Irish Novel****3 Credit hours**

This course examines 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.

Grade Mode: Normal Grading Mode**LITS 662 20th C Irish Drama****3 Credit hours**

From the founding of the Abbey Theatre to the present, this course traces the development of Irish drama as art form and culture artifact.

Grade Mode: Normal Grading Mode**LITS 670 Contemporary World Fiction****3 Credit hours**

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 presented.

Grade Mode: Normal Grading Mode

Management (MGT)

MGT 500 Analytic Methods & Tech**3 Credit hours**

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 under- graduate background in mathematics.

Grade Mode: Normal Grading Mode**MGT 580 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**MGT 601 Quant Methods-Business****3 Credit hours**

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: Full MBA Admission or Permission of MBA Director)

Pre-req: MGT 500.**Grade Mode:** Normal Grading Mode**MGT 610 OPERATIONS MANAGEMENT****3 Credit hours****Grade Mode:** Normal Grading Mode**MGT 611 Military Management I****3-9 Credit hours**

MGT 611 concerns the theory and practice of a military officer's management plans to attain outcomes consistent with the organization's mission and goals including strategy formulation, implementation and control.

Grade Mode: Credit/No Credit Grade Only**MGT 612 Military Management II****3-9 Credit hours**

MGT 612 concerns the theory and practice of a military officer's strategic human resource management plans to attain outcomes consistent with the organization's mission and goals including strategy formulation, implementation and control.

Grade Mode: Credit/No Credit Grade Only**MGT 613 Military Management III****3-9 Credit hours**

MGT 613 concerns the theory and practice of a military officer's quantitative and analytical management plans to attain outcomes consistent with the organization's mission and goals including strategy formulation, implementation and control.

Grade Mode: Credit/No Credit Grade Only**MGT 620 Human Resource Management****3 Credit hours**

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: MGT 320 or MKT 511; and GSM admission or permission of GSM academic advisor)

Pre-req: MKT 511.**Grade Mode:** Normal Grading Mode**MGT 630 Mgt & Supervisory Skills Devel****3 Credit hours**

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)

Pre-req: MGT 672 or MGT 503G.**Grade Mode:** Normal Grading Mode

MGT 650 Special Topics	1-4 Credit hours	MGT 676 Organization Theory Design	3 Credit hours
PR: Permission of the division head and full M.B.A. admission or permission of GSM academic advisor.		Analysis of organizational systems and subsystems incorporating, traditional, behavioral, and situational approaches to organizational and work unit design. Emphasizes environmental interface and interdependencies as function of internal systems phenomena.	
Pre-req: MGT 503 or MGT 503G.		Pre-req: MGT 672 or MGT 503G.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MGT 651 Special Topics	1-3 Credit hours	MGT 677 Supply Chain Management	3 Credit hours
PR: Permission of the division head and full M.B.A. admission or permission of GSM academic advisor.		This course is a study of efforts to optimize actions of manufacturers, suppliers, distributors, retailers, and other selected modes in their endeavors to serve the ultimate customers.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MGT 655 Management of Small Business	3 Credit hours	MGT 680 Entrepreneurship	3 Credit hours
Pre-req: MGT 501 or MGT 501G.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MGT 660 Independent Study	1-4 Credit hours	MGT 681 Thesis	1-6 Credit hours
Independent study of a specific nature under the		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MGT 692 Ethics/Global Aspects Bus	3 Credit hours
MGT 665 MANAGEMENT INFORMATION SYSTEMS	3 Credit hours	An examination of the Manager's social, ethical, and environmental responsibilities, not only to their domestic constituents, but also in the increasingly competitive international arena.	
Grade Mode: Normal Grading Mode		Pre-req: MGT 672.	
MGT 670 Management Consulting Skills	3 Credit hours	Grade Mode: Normal Grading Mode	
Pre-req: MGT 672 or MGT 503G.		MGT 696 Admin Policy & Strategy	3 Credit hours
Grade Mode: Normal Grading Mode		Capstone graduate business course for Master of Science students (HRM & HCA). Emphasis on policy and strategy issues in a service and/or public setting instead of within a "for-profit" environment.	
MGT 671 Business Admin Internship	3 Credit hours	Grade Mode: Normal Grading Mode	
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)		MGT 698 Independent Study in Mgmt	1-3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MGT 672 Organizational Behavior	3 Credit hours	MGT 699 Strategic Management	3 Credit hours
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 the organizational behavior and theory.		The study and application of top management's plan to attain outcomes consistent with the organization's mission and goals, including; strategy formulation, implementation and control. (PR: Permission of GSM academic advisor)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MGT 673 Prob Personnel Management	3 Credit hours	MGT 749 RESEARCH PAPER	3 Credit hours
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; role of government in manpower administration.		Grade Mode: Normal Grading Mode	
Pre-req: MGT 672 or MGT 503G.		MGT 797 THESIS	6 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MGT 674 Prod/Operation Management	3 Credit hours	MGT 799 Business Policy	3 Credit hours
The study of operations management methods used in production, manufacturing, services and other business operations. Includes project management, capacity planning and transportation problems. (PR: MGT 601 and Full MBA Admission or Permission of MBA Director)		Grade Mode: Normal Grading Mode	
Pre-req: MGT 601.			
Grade Mode: Normal Grading Mode			
MGT 675 Prob Labor-Mgt Relations	3 Credit hours		
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.			
Pre-req: MGT 672 or MGT 503G.			
Grade Mode: Normal Grading Mode			

Management Information Systems (MIS)

MIS 650 Special Topics	1-4 Credit hours
Permission of the division head and full MBA admission.	
Grade Mode: Normal Grading Mode	
MIS 651 Special Topics	1-4 Credit hours
Permission of the division head and full MBA admission	
Grade Mode: Normal Grading Mode	

MIS 678 Management Infor Systems**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MIS 680 Health Comm Telematics****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MIS 685 Bus Intel/Analytics****3 Credit hours**

Introduction to methods to improve fact-based managerial decision making. Focus on analytics types and data manipulation to discover patterns and generate information associated with products and services.

Pre-req: MIS 678.**Grade Mode:** Normal Grading Mode

Marketing (MKT)

MKT 511 Marketing and Management**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MKT 580 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**MKT 581 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**MKT 600 Marketing Management****3 Credit hours****Grade Mode:** Normal Grading Mode**MKT 610 Mkt/Nonprofit Organizations****3 Credit hours****Grade Mode:** Normal Grading Mode**MKT 625 Hosp and Tourism Marketing****3 Credit hours**

Examination of marketing principles and the unique aspects of services marketing for the purpose of strategic decision making, marketing management and developing marketing plans in the tourism and hospitality industry.

Grade Mode: Normal Grading Mode**MKT 650 Special Topics****1-4 Credit hours****Pre-req:** MKT 501.**Grade Mode:** Normal Grading Mode**MKT 651 Special Topics****1-3 Credit hours****Grade Mode:** Normal Grading Mode**MKT 660 Independent Study****1-4 Credit hours****Pre-req:** MKT 682.**Grade Mode:** Normal Grading Mode**MKT 681 Thesis****1-6 Credit hours****Grade Mode:** Normal Grading Mode**MKT 682 Adv Marketing Management****3 Credit hours**

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.

Pre-req: MKT 511.**Grade Mode:** Normal Grading Mode**MKT 683 Adv Marketing Research****3 Credit hours**

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.

Pre-req: MKT 682 and MGT 601.**Grade Mode:** Normal Grading Mode**MKT 684 Global Marketing****3 Credit hours**

This course provides a decision-oriented approach to global marketing; focus will be placed on market entry strategies, segmentation techniques, and marketing mix decisions in a multi-national environment.

Grade Mode: Normal Grading Mode**MKT 685 Marketing Problems****3 Credit hours**

Determination of the marketing mix within the framework of the problem-solving and decision-making process.

Pre-req: MKT 682.**Grade Mode:** Normal Grading Mode**MKT 686 IMC for Prof Services****3 Credit hours**

The importance and application of integrated marketing communications in marketing professional services are examined. Information is drawn from business and other areas of study and experiential learning activities are incorporated.

Pre-req: MKT 501.**Grade Mode:** Normal Grading Mode**MKT 698 Independent Study in Marketing****1-3 Credit hours****Grade Mode:** Normal Grading Mode**MKT 749 Research Paper****3 Credit hours****Grade Mode:** Normal Grading Mode**MKT 797 THESIS****6 Credit hours****Grade Mode:** Normal Grading Mode

Mathematics (MTH)

MTH 500 Structure of Algebra**3 Credit hours**

Emphasis on the language of Modern Elementary Algebra. Recommended for preservice elementary teachers and for elementary and secondary in-service teachers. May not be used for a degree offered by the Department of Mathematics of in the twelve hour content block of the Secondary Education MA Degree program for students with mathematics certification in grades 7-12.

Grade Mode: Normal Grading Mode**MTH 501 Structure Modern Geometry****3 Credit hours**

Informal development of geometry. Recommended for pre-service elementary teachers and for elementary and secondary in-service teachers. May not be used for a degree offered by the Department of Mathematics or in the twelve hour content block of the Secondary Education MA Degree program for students with mathematics certification in grades 7-12.

Grade Mode: Normal Grading Mode**MTH 527 Advanced Calculus I****3 Credit hours**

The number system, limits, sequences, partial differentiation with applications, maxima and minima of functions of several variables. Theory of definite integrals, multiple integrals, line and surface integrals, improper integrals, infinite series.

Grade Mode: Normal Grading Mode

MTH 528 Advanced Calculus II**3 Credit hours**

The number system, limits, sequences, partial differentiation with applications, maxima and minima of functions of several variables. Theory of definite integrals, multiple integrals, line and surface integrals, infinite series.

Pre-req: MTH 527 with a minimum grade of C.**Grade Mode:** Normal Grading Mode**MTH 548 Modern Geometries****3 Credit hours**

Finite geometries, basic background material for the modern development of Euclidean Geometry, other geometries.

Grade Mode: Normal Grading Mode**MTH 549 Projective Geometry****3 Credit hours**

Projective geometry using both synthetic and algebraic methods.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**MTH 550 Modern Algebra I****3 Credit hours**

Structure of the abstract mathematical systems; groups, rings, fields, with illustrations and applications from Number Theory.

Grade Mode: Normal Grading Mode**MTH 552 Modern Algebra II****3 Credit hours**

Structure of the abstract mathematical systems; groups, rings, fields, with illustrations and application from Number Theory.

Pre-req: MTH 550 with a minimum grade of C.**Grade Mode:** Normal Grading Mode**MTH 580 Special Topics****1-4 Credit hours**

Courses on special topics not listed among the current course offerings.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**MTH 585 Independent Study****1-4 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MTH 589 Graduate Mathematics Seminar****1 Credit hour**

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.

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**MTH 615 Partial Differential Equations****3 Credit hours**

Elementary partial differential equations. Heat equation, Laplace's equation, separation of variables, Fourier series, vibrating strings, eigenvalue problems, finite differences, Bessel functions, Legendre polynomials.

Grade Mode: Normal Grading Mode**MTH 616 Advanced Differential Equations****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MTH 630 Topology I****3 Credit hours**

General topology including separation axioms, connectedness, compactness, convergence, continuity, metric spaces, product and quotient spaces.

Grade Mode: Normal Grading Mode**MTH 631 Topology II****3 Credit hours**

General topology including separation axioms, connectedness, compactness, convergence, continuity, metric spaces, product and quotient spaces.

Pre-req: MTH 630 with a minimum grade of C and MTH 550 with a minimum grade of C.**Grade Mode:** Normal Grading Mode**MTH 635 Graph Theory and Combinatorics****3 Credit hours**

The course is designed to introduce students in mathematical sciences to the theorems, techniques and applications of graph theory and combinatorics.

Grade Mode: Normal Grading Mode**MTH 640 Complex Variables I****3 Credit hours**

A study of algebra, topology, and geometry of the complex plane; holomorphic functions; conformal mapping; analytic functions and analytic continuation; complex integration; representation theorems; convergence theorems and related topics.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**MTH 642 Numerical Linear Algebra****3 Credit hours**

Direct and iterative methods for numerical solution of linear systems of equations. Eigenvalues and eigenvectors. Error analysis and norms. Related Topics.

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**MTH 643 Numerical Analysis****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MTH 650 Real Variables I****3 Credit hours**

A study of measure and integration and related topics.

Pre-req: MTH 528 with a minimum grade of C.**Grade Mode:** Normal Grading Mode**MTH 655 Number Theory****3 Credit hours**

A survey of some basic properties of the integers: divisibility (prime numbers, factorization, perfect numbers), congruences (modular arithmetic, linear and quadratic congruences, the Chinese Remainder Theorem), and Diophantine equations.

Grade Mode: Normal Grading Mode**MTH 667 Num Partial Diff Equations****3 Credit hours**

Finite difference methods for elliptic, parabolic, and hyperbolic PDEs. Study of properties such as consistency, convergence, and stability. Computer implementation.

Pre-req: MTH 527 with a minimum grade of C.**Grade Mode:** Normal Grading Mode**MTH 670 Independent Study****1-4 Credit hours**

An independent program of study of advanced topics not normally covered in other courses. The topics are chosen upon mutual agreement between the student and the instructor

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**MTH 681 Thesis****1-6 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode

MTH 690 Special Topics**1-4 Credit hours**

Courses on special topics not listed among the current course offerings. (PR: Permission of Instructor)

Grade Mode: Normal Grading Mode

Mechanical Engineering (ME)

ME 502 Principles and Practices-ME**2 Credit hours**

Grade Mode: Normal Grading Mode

ME 515 Vehicle Dynamics**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ME 520 Intro Comp Fluid Dynamic**3 Credit hours**

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 modeling.

Grade Mode: Normal Grading Mode

ME 530 Renewable Energy**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ME 545 Nano-Materials**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ME 560 Automation and Control**3 Credit hours**

This course provides an overview of the principles of automation and concept of system control, including instrumentation, control, human interface, and communication subsystems.

Grade Mode: Normal Grading Mode

ME 601 Advanced Engr Analysis I**3 Credit hours**

The core of this course is to learn advance analytical and computational methods to solve multi-dimensional conduction, convection-advection, mechanical vibration, and elasticity equations.

Grade Mode: Normal Grading Mode

ME 602 Advanced Engr Analysis II**3 Credit hours**

This is the second course in a two-course sequence to learn advanced analytical and computational methods to solve multi-dimensional diffusion, heat, biharmonic, and elasticity equations.

Pre-req: ME 601.

Grade Mode: Normal Grading Mode

ME 604 Research Methods**3 Credit hours**

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.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

ME 617 Additive Manufacturing**3 Credit hours**

Additive manufacturing (AM), rapid prototyping, rapid tooling, joining processes, direct digital manufacturing to form 3D parts with applications ranging from prototyping to production in aerospace, defense, and biomedical industries.

Grade Mode: Normal Grading Mode

ME 621 Corrosion Engineering**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ME 625 Tribology**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ME 628 Applied Biomaterials**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ME 630 Manufacturing Systems**3 Credit hours**

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/tooling.

Grade Mode: Normal Grading Mode

ME 635 Advanced Vibrations**3 Credit hours**

Modeling of vibratory motion of advanced mechanical and structural systems, including continuous systems, nonlinear systems and systems with random excitations.

Grade Mode: Normal Grading Mode

ME 640 System Modeling**3 Credit hours**

Overview of system modeling and simulation of complex systems with mechanical, hydraulic, thermal and/or electrical elements. Frequency response analysis, stability, and numerical analysis of system modeling.

Grade Mode: Normal Grading Mode

ME 645 Nonlinear Dynamics**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

ME 649 Sustainable Energy Management**3 Credit hours**

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.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

ME 650 Special Topics**1-4 Credit hours**

Subject matter to be selected from topics of current interest.

Grade Mode: Normal Grading Mode

ME 651 Special Topics 1-4 Credit hours

Subject matter to be selected from topics of current interest.

Grade Mode: Normal Grading Mode

ME 652 Special Topics 1-4 Credit hours

Subject matter to be selected from topics of current interest.

Grade Mode: Normal Grading Mode

ME 653 Special Topics 1-4 Credit hours

Subject matter to be selected from topics of current interest.

Grade Mode: Normal Grading Mode

ME 699 Thesis 1-6 Credit hours

This course covers the communication problems encountered in researching and writing a thesis: the scientific writing of a research paper, the speaking and presenting skills, and the organization skills.

Grade Mode: Normal Grading Mode

Medical Academic Computing (MAC)

MAC 864 Computers in Medicine 1-18 Credit hours

Introduction of various aspects of medical informatics, including use of productivity tools, medical literature search and retrieval, management and analysis of data, modelling and simulation, data communications, on-line data-bases and services, and clinical decision analysis.

Grade Mode: Normal Grading Mode

MAC 868 MAC Externship 1-18 Credit hours

Out-of-State Externship

Grade Mode: Pass/Fail Grading Mode

Medical Curriculum (MDC)

MDC 710 Elements of Medicine 9 Credit hours

Elements of Medicine introduces the student to the fundamental concepts necessary to understand the structure and function of the human body at a molecular level.

Grade Mode: Normal Grading Mode

MDC 711 Structure and Function I 5 Credit hours

The Structure and Function I block introduces students to the organization of the human body at a gross and microscopic level while integrating the cellular processes that underlie the normal physiology of the musculoskeletal system and the integument.

Grade Mode: Normal Grading Mode

MDC 712 Structure and Function II 8 Credit hours

Nervous System and Behavior is an integrated course for first year medical students. Students will understand how internal (neurobiological) and external (family, community, and culture) processes determine human experience and behavior, and to introduce students to the diseases and disease processes which adversely affect the nervous system and behavior.

Grade Mode: Normal Grading Mode

MDC 713 Structure and Function III 6 Credit hours

Structure and Function III provides first year medical students with a solid foundation in normal human cardiovascular, pulmonary and renal structure and function.

Grade Mode: Normal Grading Mode

MDC 714 Structure and Function IV 6 Credit hours

Structure and Function IV provides first year medical students with a solid foundation in normal human gastrointestinal, endocrine and reproductive structure and function.

Grade Mode: Normal Grading Mode

MDC 750 Principles of Disease 7 Credit hours

Principles of Disease is an integrated introduction to human disease and treatment based on core concepts in microbiology, immunology, pharmacology, genetics, and pathology.

Grade Mode: Pass/Fail Grading Mode

MDC 751 Disease and Therapeutics I 6 Credit hours

Disease and Therapeutics I introduces the student to the fundamental concepts necessary to understand disease processes, diagnostics and therapeutic options for diseases of the Musculoskeletal, Dermatologic and Hematopoietic systems.

Grade Mode: Pass/Fail Grading Mode

MDC 752 Disease and Therapeutics II 7 Credit hours

Disease and Therapeutics II introduces the student to the fundamental concepts necessary to understand disease processes, diagnostics and therapeutic options for diseases of the nervous system.

Grade Mode: Pass/Fail Grading Mode

MDC 753 Disease and Therapeutics III 8 Credit hours

Disease and Therapeutics III introduces the student to the fundamental concepts necessary to understand disease processes, diagnostics and therapeutic options for diseases of the cardiovascular, pulmonary and renal systems.

Grade Mode: Pass/Fail Grading Mode

MDC 754 Disease and Therapeutics IV 9 Credit hours

Disease and Therapeutics IV introduces the student to the fundamental concepts necessary to understand disease processes, diagnostics and therapeutic options for diseases of the Gastrointestinal, Genitourinary and Endocrine systems.

Grade Mode: Pass/Fail Grading Mode

MDC 800 Physicians in Practice 1-18 Credit hours

This course will focus primarily on the non-medical knowledge competencies of the curriculum. This will include professionalism, systems based practice, practice-based learning and improvement, interpersonal and communication skills, and clinical and translational sciences.

Grade Mode: Pass/Fail Grading Mode

MDC 801 Mol & Cell Found of Medicine 1-18 Credit hours

This course will provide the molecular and cellular background for understanding human health and disease, as well as the basis for understanding human interactions with microorganisms, an introduction to pharmacology, and a comprehensive introduction to host defenses. Through the content covered the course will introduce students to a core set of medical knowledge required to understand, implement, and explain clinical decisions. Skills building will include teamwork, professionalism, life-long learning, and curation of appropriate information sources.

Grade Mode: Pass/Fail Grading Mode

MDC 802 Hematology and Oncology 1-18 Credit hours

The course addresses various competencies including medical knowledge, patient care, and professionalism.

Grade Mode: Pass/Fail Grading Mode

MDC 803 Patient Care & Clinical Skills**1-18 Credit hours**

This course will help students master the skills necessary for obtaining a thorough history and performing a complete physical exam. This course will instruct and assess on all components necessary to provide clinical care.

Grade Mode: Pass/Fail Grading Mode**MDC 804 Ortho and the Neuro Network****1-18 Credit hours**

This course will integrate the basic science and clinical information related to musculoskeletal, neurological, and psychiatric disorders. The course will focus primarily on the medical knowledge learning objectives, but will also include practice based learning, professionalism, and interpersonal and communication skills objectives.

Grade Mode: Pass/Fail Grading Mode**MDC 805 Nutrition & Gastroenterology****6 Credit hours**

The goal of this course is to provide students with foundations of determinants of health and disease of the gastrointestinal system and explore the effects of nutrition on human health and disease. True vertical integration of relevant foundational science disciplines are leveraged to highlight the interplay of key concepts in the pathophysiology and management of diseases of the digestive system. Variety of active and self-directed learning pedagogies, including team-based learning, clinical correlates, small group activities, and independent study of clinical cases complement the didactic material and help the student apply the material to medical problem solving. The course is centered on patient care and integrates with the longitudinal course "Patient Care and Clinical Skills" to enhance the understanding and application of foundational sciences to the practice of medicine.

Grade Mode: Pass/Fail Grading Mode**MDC 806 Patient Care & Clin Skills II****1-18 Credit hours**

A continuation of the first year course, this course will help students master the skills necessary for obtaining a thorough history and performing a complete physical exam. This course will instruct and assess on all components necessary to provide clinical care.

Grade Mode: Pass/Fail Grading Mode**MDC 807 Cardio, Renal, & Res Sys****1-18 Credit hours**

This course will help students master the foundational concepts and clinical correlations for diseases of the three vital organ systems. The course employs integrative approach to build foundations for understanding determinates of health and disease related to these organ systems. All relevant foundational disciplines, including anatomy, physiology, pathology, pharmacology, and radiology will be covered in this course.

Grade Mode: Pass/Fail Grading Mode**MDC 808 Reproduction and Endocrinology****1-18 Credit hours**

The goal of this course is to provide students with foundations of determinants of health and disease of the endocrine and the reproductive system. True vertical integration of relevant foundational science disciplines are leveraged to highlight the interplay of key concepts in the pathophysiology and management of diseases of these. Variety of active and self-directed learning pedagogies, including team-based learning, clinical correlates, small group activities, and independent study of clinical cases complement the didactic material and help the student apply the material to medical problem solving.

Grade Mode: Pass/Fail Grading Mode

Medicine (MED)

MED 680 Special Topics in Medicine**1-18 Credit hours**

This special topics in medicine course will provide the student with a better understanding of a selected topic of study.

Grade Mode: Pass/Fail Grading Mode**MED 710 Intro to Medicine****2 Credit hours****Grade Mode:** Normal Grading Mode**MED 713 Med Clerksp Kellogg****4 Credit hours**

Comprehensive coverage at the introductory level of internal medicine (in the Kellogg curriculum). The reduction in credit from the standard clerkship is to accommodate Kellogg curriculum.

Grade Mode: Normal Grading Mode**MED 720 Intro Clinical Medicine****3 Credit hours****Pre-req:** MED 710.**Grade Mode:** Normal Grading Mode**MED 721 Intro Clinical Medicine****3 Credit hours****Pre-req:** MED 720.**Grade Mode:** Normal Grading Mode**MED 725 Approach to Patient Care****1-18 Credit hours**

Introduction to clinical medicine and physical diagnosis.

Grade Mode: Normal Grading Mode**MED 726 Approach to Patient Care****1-18 Credit hours**

Introduction to clinical medicine and physical diagnosis.

Grade Mode: Normal Grading Mode**MED 730 Physical Exam Of Patient****3 Credit hours****Pre-req:** MED 710.**Grade Mode:** Normal Grading Mode**MED 731 Physical Exam Of Patient****3 Credit hours****Pre-req:** MED 730.**Grade Mode:** Normal Grading Mode**MED 740 Internal Med Clerkship****8 Credit hours****Pre-req:** MED 730 and MED 731.**Grade Mode:** Normal Grading Mode**MED 742 Internal Medicine Clerkship****1-18 Credit hours****Grade Mode:** Pass/Fail Grading Mode**MED 744 Required Medicine****4 Credit hours****Grade Mode:** Normal Grading Mode**MED 755 Advanced Clinical Skills****1-18 Credit hours****Grade Mode:** Pass/Fail Grading Mode**MED 780 Elective Special Projects****1-18 Credit hours****Grade Mode:** Pass/Fail Grading Mode**MED 785 Independent Study****1-15 Credit hours**

Independent study in Medicine is designed to allow the student the opportunity to work with a faculty member on a topic of special interest.

Grade Mode: Credit/No Credit Grade Only**MED 800 Adv Skills Clin Epidemiology****1-18 Credit hours**

This MS IV course will cover necessary skills in epidemiology used in clinical practice for both interpretation of the medical literature and application to patient care.

Grade Mode: Normal Grading Mode

MED 801 Clinical Cardiology	1-18 Credit hours	MED 827 Adv Clerkship in Medicine	1-18 Credit hours
This elective will provide medical students with the opportunity to learn about the day to day functions of a variety of non physician health care providers by shadowing a member of a different discipline each day.		Grade Mode: Pass/Fail Grading Mode	
Grade Mode: Normal Grading Mode		MED 828 Advanced Clerkship in Med/Peds	1-12 Credit hours
MED 801A Clinical Cardiology Rehab	1-18 Credit hours	This elective for fourth year medical students provides a structured clinical experience in the broad field of General Internal Medicine and Pediatrics. It is designed to be a well supervised educational experience that will serve to improve and build upon those cognitive and technical clinical skills already attained during the junior clerkships. Through this elective, the student will learn the clinical skills and attitudes essential to the practice of General Internal Medicine and Pediatrics.	
Grade Mode: Normal Grading Mode		Grade Mode: Pass/Fail Grading Mode	
MED 802 Cardiovascular Research	1-18 Credit hours	MED 829 Neurology	1-18 Credit hours
Grade Mode: Pass/Fail Grading Mode		Grade Mode: Normal Grading Mode	
MED 803 Clinical Dermatology	1-18 Credit hours	MED 830 Interdisciplinary Medicine	1-18 Credit hours
Grade Mode: Pass/Fail Grading Mode		Grade Mode: Pass/Fail Grading Mode	
MED 805 Clin Endocrinology Metab	1-18 Credit hours	MED 831 Clin Endocrin Nuclear Med	1-18 Credit hours
Grade Mode: Pass/Fail Grading Mode		Pre-req: MED 740.	
MED 806 Research Endocrinol Metab	1-18 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MED 833 Critical Care Medicine	1-18 Credit hours
MED 807 Clinical Gastroenterology	1-18 Credit hours	Grade Mode: Pass/Fail Grading Mode	
Grade Mode: Pass/Fail Grading Mode		MED 835 Physical Medicine	1-18 Credit hours
MED 808 Research in G I Disease	1-18 Credit hours	Grade Mode: Normal Grading Mode	
Pre-req: MED 740.		MED 839 Geriatric Medicine	1-18 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MED 809 Primary Care Internal Med	1-18 Credit hours	MED 868 Med Externship	1-18 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Pass/Fail Grading Mode	
MED 811 Clin Hematology Oncology	1-18 Credit hours	MED 888 Rural Medicine	1-18 Credit hours
Grade Mode: Pass/Fail Grading Mode		Acquaints students with issues of rural community health and wellness. Provides students with knowledge, attitudes and skills to participate in a changing health care environment.	
MED 812 Clinical Oncology	1-18 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Pass/Fail Grading Mode		MED 899 Medical School	1-18 Credit hours
MED 813 Clin Infectious Diseases	1-18 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Pass/Fail Grading Mode			
MED 814 Research Infectious Dis	1-18 Credit hours		
Pre-req: MED 740.			
Grade Mode: Normal Grading Mode			
MED 817 Clinical Nephrology	1-18 Credit hours		
Grade Mode: Pass/Fail Grading Mode			
MED 819 Clinical Pharmacology	1-18 Credit hours		
Pre-req: MED 740.			
Grade Mode: Normal Grading Mode			
MED 821 Clin Pulmonary Diseases	1-18 Credit hours		
Grade Mode: Pass/Fail Grading Mode			
MED 822 Clin Respiratory Physiol	1-18 Credit hours		
Grade Mode: Normal Grading Mode			
MED 823 Clinical Rheumatology	1-18 Credit hours		
Grade Mode: Pass/Fail Grading Mode			
MED 826 Hospital Medicine	1-18 Credit hours		
This elective for fourth year medical students provides a structured clinical experience in the field of academic hospital medicine. It is designed to be a well supervised and personalized educational experience that will serve to improve and build upon those cognitive and technical clinical skills already attained during the junior medicine clerkship. Through this elective, the student will learn the clinical skills and attitudes essential to the practice of hospital medicine and the delivery of the highest quality patient care.			
Grade Mode: Pass/Fail Grading Mode			

Mgt Prac Nurse Anesthesia (MPNA)

MPNA 700 Health Policy and Delivery	3 Credit hours
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.	
Grade Mode: Normal Grading Mode	
MPNA 710 Fin Mgmt for Health Care Prof	3 Credit hours
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.	
Grade Mode: Normal Grading Mode	

MPNA 711 Mkt & Mgt for Health Care Prof**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 715 Health Economics****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 724 Evidence Based Rsrch Mthds I****3 Credit hours**

This course is designed 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. Student will be IRB certified by the end of the course.

Pre-req: MPNA 700.**Grade Mode:** Normal Grading Mode**MPNA 725 Evidence Based Rsrch Mthds II****3 Credit hours**

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.

Pre-req: MPNA 724.**Grade Mode:** Normal Grading Mode**MPNA 726 Statistical Methods for Resear****3 Credit hours**

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.

Pre-req: MPNA 700.**Grade Mode:** Normal Grading Mode**MPNA 730 Medical/Legal Issues****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 734 Principles of Anesthesia Prac****4 Credit hours**

Principles of patient assessment, airway management, anesthesia machine, monitoring devices, fluid and blood therapy, positioning, and prevention of infection. Recognition and management of selected anesthetic complications.

Grade Mode: Normal Grading Mode**MPNA 734A Simulation Lab****1-5 Credit hours**

In this course students will apply knowledge of the basic principles of anesthesia to "hands on" experience in the simulation lab. Areas covered include the anesthesia machine and other equipment, monitoring modalities, airway management, and all phases of anesthetic management.

Co-req: MPNA 734**Grade Mode:** Normal Grading Mode**MPNA 735 Senior Seminar****3 Credit hours**

Management decisions related to complex anesthesia situations including but not limited to: unusual co-existing disease, uncommon operative procedure, adverse complications or unexpected events.

Grade Mode: Normal Grading Mode**MPNA 743 Management and Leadership****6 Credit hours**

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.

Pre-req: NUR 741.**Grade Mode:** Normal Grading Mode**MPNA 745A Pediatrics for Nurse Anesth I****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 745B Obstetrics for Nurse Anesth II****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 745C Case Seminar****6 Credit hours**

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.

Pre-req: NUR 741.**Grade Mode:** Normal Grading Mode**MPNA 753 Mgmt Complex Health Care****3 Credit hours**

In this course, 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.

Pre-req: MPNA 700.**Grade Mode:** Normal Grading Mode**MPNA 755 Mkt Goods/Serv Med Env****3 Credit hours**

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.

Pre-req: MPNA 700.**Grade Mode:** Normal Grading Mode

MPNA 756 Clinical and Admin IS**3 Credit hours**

Foundations of clinical information use starting with information collection, processing, decision making and recording. Special emphasis on management information systems to support the nurse's work and health care delivery.

Pre-req: MGT 678.**Grade Mode:** Normal Grading Mode**MPNA 772 Organizational Behavior****3 Credit hours**

Advanced level theories of effective organization management as they relate to health care organizations will be provided. Topics include: managing diverse work groups in the health care system, planning and organizing, decision making models, various leadership styles, and controlling and evaluating management effectiveness.

Grade Mode: Normal Grading Mode**MPNA 777 Moral Management****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 796 Policy Strategy Entrepreneur****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MPNA 799 Research Project****3 Credit hours**

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.

Grade Mode: Normal Grading Mode

Microbiology (MCB)

MCB 620 Prin Medical Microbiology**6 Credit hours**

The study of microorganisms, immunobiology, immunologic diseases, host resistance and the means by which diseases are produced and prevented.

Grade Mode: Normal Grading Mode**MCB 622 Curr Topics Molec Biology****1 Credit hour**

Critical discussion of current literature/concepts. Participants present published research papers on topics with a molecular biology component. Presentations are followed by discussion/evaluation of the contribution of the research.

Grade Mode: Credit/No Credit Grade Only**MCB 631 Medical Microbiology I****3 Credit hours**

This course will present the major aspects of the field of medical microbiology with emphasis on selected pathogenic organisms.

Pre-req: BMS 600.**Grade Mode:** Normal Grading Mode**MCB 632 Medical Microbiology II****2 Credit hours**

This course will present a continuation of the major aspects of the field of medical microbiology with emphasis on the major pathogenic organisms.

Pre-req: BMS 600 and MCB 631.**Grade Mode:** Normal Grading Mode**MCB 642 Graduate Microbiology I****4 Credit hours**

An advanced treatment of microbiology with emphasis on the molecular aspects of anatomy, taxonomy, and physiology and genetics of microorganisms.

Grade Mode: Normal Grading Mode**MCB 643 Principles of Immunology****3 Credit hours**

Basic principles of the immune response system of humans and related mammals. Concepts of B & T cell function and inter-relationships emphasized.

Grade Mode: Normal Grading Mode**MCB 648 Molec Aspects of Pathogenesis****3 Credit hours**

An in depth study of molecular mechanisms of bacterial, viral, and immune-mediated disease processes.

Grade Mode: Normal Grading Mode**MCB 660 Diagnostic Virology****3 Credit hours**

A comprehensive survey of methodologies used to detect and characterize viral specific antibodies and antigens and the status of cellular immunity in virus infected hosts.

Pre-req: MCB 620.**Grade Mode:** Normal Grading Mode**MCB 675 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**MCB 676 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**MCB 677 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**MCB 679 Special Problems****1-3 Credit hours****Grade Mode:** Normal Grading Mode**MCB 720 Microbiology****6 Credit hours****Grade Mode:** Normal Grading Mode**MCB 743 Principles of Immunology****3 Credit hours**

Basic principles of the immune response system of humans and related mammalian representatives. The concepts of B and T cell function and their interrelationships will be emphasized.

Grade Mode: Normal Grading Mode**MCB 780 Elective Special Projects****1 Credit hour****Grade Mode:** Normal Grading Mode**MCB 785 Independent Study****1-15 Credit hours**

Independent Study in Microbiology is designed to allow the student the opportunity to work with a faculty member on a topic of special interest.

Grade Mode: Credit/No Credit Grade Only**MCB 813 Research in Microbiology****1-18 Credit hours****Grade Mode:** Normal Grading Mode**MCB 814 Clin Lab Microbiol Immun****1-18 Credit hours****Grade Mode:** Normal Grading Mode

Mine Safety (MSF)

MSF 510 Survey of Mining	3 Credit hours	MSF 591 Workshop	1-4 Credit hours
An overview of mining to provide the participant with a general understanding of mining history, development systems terminology, procedures, methods and safety and health activities.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MSF 592 Workshop	1-4 Credit hours
MSF 511 Mine Safety Prog Analysis	3 Credit hours	Grade Mode: Normal Grading Mode	
This course prepares the participant for the effective analysis of safety programs and provides some specific applications in the mining environment.		MSF 593 Workshop	1-4 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MSF 512 Mine Safety Hlth Legisla	3 Credit hours	MSF 594 Workshop	1-4 Credit hours
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.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MSF 621 Systm Safety Engin Mining	3 Credit hours
MSF 513 Mine Safety Hlth Manage	3 Credit hours	A study of the analytical tools used in the recognition, evaluation and control of exposure to hazards in the Mining Industry.	
This course covers the principles, functions and philosophies of mine management.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MSF 622 Accident Prevent Mining	3 Credit hours
MSF 514 Hazard Control in Mining	3 Credit hours	A survey course which discusses why and how mining accidents occur, factors in successful safety programs and the recognition, evaluation, and control of accident causes.	
A study of how to recognize accident potential through-out the mining industry.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MSF 624 Mine Haulage & Transport	3 Credit hours
MSF 526 Ind Toxic Airborne Contam	3 Credit hours	A study of the operation of hoisting haulage equipment used in the mining industry.	
Principles of Toxicology: biochemistry, biological monitoring, biological transformation and chemical hazards. Properties, behavior and measurement of airborne particles. Special topics: sampling and evaluating airborne asbestos dust.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MSF 625 Philos Mine Safety Health	3 Credit hours
MSF 527 Phys Biol Health Hazards	3 Credit hours	An analysis of the philosophies of mine safety and health; application of these philosophies to actual mining situations.	
Physical hazards: heat, noise and radiation. Biological hazards: atmospheric transport of microorganisms that cause disease.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MSF 626 Safety Hlth Resrch Mining	3 Credit hours
MSF 580 Special Topics	1-4 Credit hours	An analysis and study of selected works of national and international authors concerning mine safety and health.	
A study of special topics not offered in regularly scheduled courses.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MSF 627 Health Hazards in Mining	3 Credit hours
MSF 581 Special Topics	1-4 Credit hours	A broad spectrum approach to the mine health field which includes: the principles for recognition, evaluation and control of health hazards in mining.	
A study of special topics not offered in regularly scheduled courses.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MSF 628 Man Machine Environ Mining	3 Credit hours
MSF 582 Special Topics	1-4 Credit hours	A study of the interactions of man, machines and the environment. The role of these interactions in causing or in preventing accidents.	
A study of special topics not offered in regularly scheduled courses.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MSF 629 Prob Analysis Mine Safety	3 Credit hours
MSF 583 Special Topics	1-4 Credit hours	A study of the rational process of problem solving decision making consultation with emphasis on realistic case studies.	
A study of special topics not offered in regularly scheduled courses.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MSF 631 Mine Accident Investiga	3 Credit hours
MSF 585 Independent Study	1-4 Credit hours	A study of the principles, techniques and procedures of investigations of mine accidents including attendance in court and report writing.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MSF 586 Independent Study	1-4 Credit hours	MSF 635 Sampl Ind Vent Resp Equip	3 Credit hours
Grade Mode: Normal Grading Mode		Gas, vapor and particulate sampling-industrial ventilation for control of health hazards. Use of respiratory protective equipment to control health hazards.	
MSF 587 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MSF 636 Tlv'S Sampling Analy Tech	3 Credit hours
MSF 588 Independent Study	1-4 Credit hours	Threshold limit values and material safety data sheets. Hands-on experience in collecting industrial hygiene samples and subsequent laboratory analysis of the samples.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	

MSF 637 Stress Impact Mining Safe 3 Credit hours

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 of the basic stress concepts.

Grade Mode: Normal Grading Mode

MSF 679 Problem Report 3 Credit hours

Pre-req: MSF 510.

Grade Mode: Normal Grading Mode

MSF 681 Thesis 1-6 Credit hours

Individual research on a specific problem of concern to the student and of significance to mine safety.

Grade Mode: Normal Grading Mode

MSF 690 Seminar 1-4 Credit hours

Pre-req: MSF 510.

Grade Mode: Normal Grading Mode

MSF 691 Seminar 1-4 Credit hours

Pre-req: MSF 510.

Grade Mode: Normal Grading Mode

MSF 692 Seminar 1-4 Credit hours

Pre-req: MSF 510.

Grade Mode: Normal Grading Mode

Music (MUS)

MUS 502 Grad Music History Rev 2 2 Credit hours

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.

Grade Mode: Normal Grading Mode

MUS 503 Choral Union 1 Credit hour

Large choral ensemble available to university and regional singers without audition.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 504 University Chorus 1 Credit hour

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.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 506 Opera Workshop 1 Credit hour

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)

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 507 Chamber Choir 1 Credit hour

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)

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 508 Orchestra 1 Credit hour

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)

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 510 Intro to World Music 3 Credit hours

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.

Grade Mode: Normal Grading Mode

MUS 511 Orff-Schulwerk 3 Credit hours

Experiences in Orff-Schulwerk include poetry, rhymes, games, songs and dances in teaching music. Singing, movement, and instrument playing and the spoken word are the primary learning tools.

Grade Mode: Normal Grading Mode

MUS 512 Adv Jazz Ped & Cond 3 Credit hours

Advanced study of methods and materials for jazz curriculum. Ensemble organization, rehearsal and conducting techniques. Selection of literature and equipment. Organization and presentation of public performances.

Grade Mode: Normal Grading Mode

MUS 513 Adv Jazz Styles / Analysis 2 Credit hours

Advanced study of structural forms used in jazz. Detailed analysis of extended forms. Techniques for solo transcriptions. Harmonic practices in specific styles. In-depth study of significant jazz composers, performers, genres.

Grade Mode: Normal Grading Mode

MUS 532 Electronic Music Composition 2 Credit hours

The theory and practice of electronic media used for musical composition. History, Synthesis, and Digital Audio processing will be emphasized.

Grade Mode: Normal Grading Mode

MUS 537 Brass Band 1 Credit hour

A community/university ensemble modeled after the British-style brass band.

Grade Mode: Normal Grading Mode

MUS 540 Graduate Theory Review 3 Credit hours

Review of undergraduate music theory for entering graduate students who are deficient or wish to review music theory skills. Pre: Graduate standing or POI.

Grade Mode: Normal Grading Mode

MUS 545 Piano Ensemble 1 Credit hour

Study and perform a wide variety of musical styles for multiple pianists on 1-5 pianos. (PR: Instructor Audition)

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

MUS 550 Guitar Literature 2 Credit hours

A survey of the literature for guitar from c. 1400 to the twentieth century.

Grade Mode: Normal Grading Mode

MUS 551 Guitar Pedagogy 2 Credit hours

A survey of guitar pedagogy literature, and a practicum in teaching classical guitar.

Grade Mode: Normal Grading Mode

MUS 552 Cello Ensemble	1 Credit hour	MUS 567 Wind Symphony	1 Credit hour
Cello students will rehearse and perform works from the major literature for cello ensemble.		A select, auditioned group of wind and percussion players who study and perform original and transcribed works for wind orchestra and works for small mixed chamber ensembles. (PR: Audition)	
Attributes: No Textbook Required		Attributes: No Textbook Required	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MUS 553 Guitar Ensemble	1 Credit hour	MUS 568 Sixth Man Band	1 Credit hour
An ensemble for guitar majors and qualified guitar elective students; focus on sight reading skills, ensemble accuracy and position playing.		The Marshall University Sixth Man Band performs at all home men's and women's basketball games. The band provides music to enhance the overall game experience for players and fans.	
Attributes: No Textbook Required		Attributes: No Textbook Required	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MUS 554 Flute Ensemble	1 Credit hour	MUS 569 Contemporary Music Ensemble	1 Credit hour
Performs a wide variety of musical styles from full choir to quartets, trios, etc. (PR: Audition)		Performance of contemporary music in various media.	
Attributes: No Textbook Required		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MUS 570 Musical Prods Practicum	1 Credit hour
MUS 555 String Ensemble	1 Credit hour	Specialized practical training in aspects of performance production, preparation, and execution. May be repeated once. may be taken four times.	
Chamber ensemble experience for string players.		Grade Mode: Normal Grading Mode	
Attributes: No Textbook Required		MUS 571 African Drum & Dance Ensemble	1 Credit hour
Grade Mode: Normal Grading Mode		Ensemble devoted to the performance fo traditional African drumming and dance.	
MUS 556 Woodwind Ensemble	1 Credit hour	Attributes: No Textbook Required	
Chamber ensemble experience for woodwind players.		Grade Mode: Normal Grading Mode	
Attributes: No Textbook Required		MUS 572 Fife and Drum Corps	1 Credit hour
Grade Mode: Normal Grading Mode		Performing/marching/uniformed ensemble devoted to the music of the American Revolution and Chief Justice John Marshall. Instruments featured include fifes and drums. (PR: Permission or Audition Required)	
MUS 557 Percussion Ensemble	1 Credit hour	Attributes: No Textbook Required	
An ensemble dedicated to performing a wide variety of musical styles on instruments in the percussion family.		Grade Mode: Normal Grading Mode	
Attributes: No Textbook Required		MUS 574 Irish Ceili Band	1 Credit hour
Grade Mode: Normal Grading Mode		Ensemble devoted to the performance of Irish Ceili and dance music.	
MUS 558 Brass Ensemble	1 Credit hour	Grade Mode: Normal Grading Mode	
Chamber ensemble experience for brass players.		MUS 580 Special Topics	1-4 Credit hours
Attributes: No Textbook Required		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MUS 581 Special Topics	1-4 Credit hours
MUS 559 Jazz Ensemble	1 Credit hour	Grade Mode: Normal Grading Mode	
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)		MUS 582 Special Topics	1-4 Credit hours
Attributes: No Textbook Required		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MUS 583 Special Topics	1-4 Credit hours
MUS 560 Jazz Improv Ensemble	1 Credit hour	Grade Mode: Normal Grading Mode	
Ensemble improvisation from duet to tentet. Emphasis on music sightreading, recognition and application of chord/scale relationships in a performance setting. Ensemble playing skills. May be repeated for credit.		MUS 584 Special Topics	1-4 Credit hours
Attributes: No Textbook Required		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MUS 585 Independent Study	1-4 Credit hours
MUS 565 Symphonic Band	1 Credit hour	Attributes: No Textbook Required	
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.		Grade Mode: Normal Grading Mode	
Attributes: No Textbook Required		MUS 586 Independent Study	1-4 Credit hours
Grade Mode: Normal Grading Mode		Attributes: No Textbook Required	
MUS 566 Marching Thunder	1 Credit hour	Grade Mode: Normal Grading Mode	
The Marching Thunder rehearses three times a week and performs a varied selection of music every home game as well as exhibitions around the country.		MUS 587 Independent Study	1-4 Credit hours
Attributes: No Textbook Required		Attributes: No Textbook Required	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	

MUS 588 Independent Study	1-4 Credit hours	MUS 604I Brass Literature	2 Credit hours
Attributes: No Textbook Required		A survey of instructional and performance literature for solo brass instruments and brass ensembles.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MUS 591 Workshop	1-4 Credit hours	MUS 610 Hist and Phil of Music Ed	3 Credit hours
Grade Mode: Normal Grading Mode		Basic concepts of music education and their application to problems of music teaching, supervision and administration.	
MUS 592 Workshop	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		MUS 611 Music Psy and Lrng Theory	3 Credit hours
MUS 593 Workshop	1-4 Credit hours	Vibrational stimuli, resultant reactions, and factors involved in development of musical skills, as well as measures of aptitude and achievement.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
MUS 594 Workshop	1-4 Credit hours	MUS 612 Projects & Problems Music	1-3 Credit hours
Grade Mode: Normal Grading Mode		Detailed investigation of problems and/or projects in the student's area of specialization. Special problems and projects chosen by the student for investigation. Extensive study of a single problem or project in detail.	
MUS 601 Orchestral Literature	3 Credit hours	Grade Mode: Normal Grading Mode	
A survey of orchestra literature beginning with the 16th century; the Mannheim composers, Viennese classics, the Romantists, the national schools, and late European, South American and American developments.		MUS 614 Sem in Teach Mus Appreciation	1 Credit hour
Grade Mode: Normal Grading Mode		Methods and materials for teaching music appreciation. Required of all graduate assistants teaching MUS 142 Music Appreciation. May be repeated for credit. Advanced methods and materials for teaching appreciation of music in grades 1-12.	
MUS 602 Band/Wind Ens Lit	3 Credit hours	Grade Mode: Normal Grading Mode	
A survey of major works originally written for wind band, major transcriptions, and works in all grade levels for school bands.		MUS 615 Adv Tech for Marching Band	3 Credit hours
Grade Mode: Normal Grading Mode		The marching band. The marching and musical problems which are encountered in training and operating a band for foot- ball games and other events involving marching and playing.	
MUS 604A Keyboard Literature	2 Credit hours	Grade Mode: Normal Grading Mode	
A survey of keyboard literature from the 14th to the 20th century. Emphasis is on stylistic developments and formal procedures.		MUS 616 Mus Curr and Admin	3 Credit hours
Grade Mode: Normal Grading Mode		Survey of recent developments in public school curricula and their effect on music offerings. Preparation of course and curricular content.	
MUS 604B Chamber Music Literature	2 Credit hours	Grade Mode: Normal Grading Mode	
A survey of chamber music literature from the Baroque Era to the 20th century. Analysis of form emphasized in the study of string quartet trio, quintet, and various other combinations.		MUS 617 Seminar Music Education	3 Credit hours
Grade Mode: Normal Grading Mode		Specialized study of advanced concepts and current problems in music education. An advanced study of basic concepts of current problems in music education.	
MUS 604C Song Literature	2 Credit hours	Grade Mode: Normal Grading Mode	
The song literature of Western Europe and America, also including contemporary material from other countries; interpretation, song study, program building, languages, and interpretation of accompaniments. For singers and accompanists.		MUS 619A Seminar in Vocal Pedagogy	2 Credit hours
Grade Mode: Normal Grading Mode		A study of the techniques of singing and their application to private and class voice instruction. Emphasis placed upon diagnosis of problems, and teaching under supervision.	
MUS 604D Choral Literature	2 Credit hours	Grade Mode: Normal Grading Mode	
A comprehensive study of the forms and styles of Choral Composition from Renaissance to present day.		MUS 620A Instrumental Tech and Material	3 Credit hours
Grade Mode: Normal Grading Mode		Problems of the instrumental teacher at all levels; practical work in the techniques of handling beginning classes and ensembles of all types.	
MUS 604F Percussion Lit	2 Credit hours	Grade Mode: Normal Grading Mode	
A survey of instructional and performance literature for solo brass instruments and brass ensembles.		MUS 620B Choral Tech and Materials	3 Credit hours
Grade Mode: Normal Grading Mode		A practicum approach to problems of choral techniques and materials with special emphasis placed upon high school and junior high school levels.	
MUS 604G String Literature	2 Credit hours	Grade Mode: Normal Grading Mode	
A survey of instructional and performance literature for solo brass instruments and brass ensembles.			
Grade Mode: Normal Grading Mode			
MUS 604H Woodwind Literature	2 Credit hours		
A survey of instructional and performance literature for flute, oboe, clarinet, bassoon and/or saxophone in both solo and ensemble settings.			
Grade Mode: Normal Grading Mode			

MUS 621 Music Research Methods**3 Credit hours**

Introduction to music research with emphasis on investigative methods and applications, procedures, and bibliography. Concentration on expository writing style and format.

Grade Mode: Normal Grading Mode**MUS 622 Styles and Analysis****3 Credit hours**

Identification of structural principles and compositional idioms characteristic of historical eras and representative composers from the Ars Antiqua to the present day.

Pre-req: MUS 540.**Grade Mode:** Normal Grading Mode**MUS 629 Choral Conduct and Interp****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MUS 630 Instru Conduct & Interp****3 Credit hours**

Advanced study in literature, conducting techniques, score preparation and analysis, interpretation, rehearsal planning and execution for the instrumental ensemble. May be repeated for credit three times.

Grade Mode: Normal Grading Mode**MUS 631 Adv Jazz Improv****2 Credit hours**

Advanced skills, techniques, and performance practices for jazz improvisation. Continued study of bebop, post-bebop, extended forms, contemporary, and non-Western styles and improvisation techniques. Transcription and performance of representative literature.

Grade Mode: Normal Grading Mode**MUS 640A Music Theory****3 Credit hours**

Analytical and writing techniques of 19th and 20th music.

Grade Mode: Normal Grading Mode**MUS 641 Advanced Counterpoint****3 Credit hours**

An intensive study of contrapuntal techniques, styles, and forms through composition and analysis.

Grade Mode: Normal Grading Mode**MUS 645 Original Composition****2 Credit hours****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 646 Advanced Choral Arranging****3 Credit hours**

Techniques of choral composition and arranging with emphasis on the mixed choir. Arrangements and original works sung by choral groups and conducted by students.

Grade Mode: Normal Grading Mode**MUS 647 Advanced Band Arranging****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**MUS 648 Advanced Orchestration****3 Credit hours**

Scoring compositions from other media for modern orchestras of various sizes.

Grade Mode: Normal Grading Mode**MUS 649 Advanced Jazz Arranging & Comp****3 Credit hours**

Comprehensive techniques and analysis of jazz masterworks applied to composing and arranging in various instrumental and vocal jazz styles. Techniques of orchestration and composition for both large and small ensembles.

Grade Mode: Normal Grading Mode**MUS 650 Music of the Middle Ages****3 Credit hours**

Ancient Greek musical theory, Gregorian chant and its outgrowths, secular monophony, sacred and secular polyphony and its development through the fourteenth century.

Grade Mode: Normal Grading Mode**MUS 651 Music of the Renaissance****3 Credit hours**

The historical and stylistic study of music of the Renaissance, ca 1400 to ca 1600. The English, Burgundian and Netherland schools; secular forms; chanson, madrigal, and lied; instrumental music; mannerism and the end of an age.

Grade Mode: Normal Grading Mode**MUS 652 Music of the Baroque Era****3 Credit hours**

The historical and stylistic study of music of the Baroque Era, ca 1600 to ca 1750. The monodic revolution: madrigal to cantata, opera, oratorio; Italian leaders; Vivaldi, Bach, and Handel.

Grade Mode: Normal Grading Mode**MUS 653 Music in Classical Era****3 Credit hours**

The historical and stylistic study of music of the Classical Era, ca 1720 to ca. 1820. Pre-Classic styles and the formation of a classical style in music in symphony, concerto, opera, the sonata, and choral music through Beethoven.

Grade Mode: Normal Grading Mode**MUS 654 Music in the Romantic Era****3 Credit hours**

The historical and stylistic study of music of the Classical Era, ca 1800 to ca. 1900 A study and evaluation of Beethoven's principal works and the life and works of Schubert, Mendelssohn, Chopin, Schumann, Brahms, and their contemporaries.

Grade Mode: Normal Grading Mode**MUS 655 Music ca 1900 to the Present****3 Credit hours**

Musical developments since Wagner: Debussy, Stravinsky, Mahler, Strauss, Schoenberg, Bartok and their contemporaries. Developments in electronic and aleatoric music, and new notations.

Grade Mode: Normal Grading Mode**MUS 656 Sem Performance Practice****2 Credit hours**

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. Students will prepare and perform music from a selected style period, making their own editions with correct realization and ornamentation. May be repeated for credit.

Grade Mode: Normal Grading Mode**MUS 657 Jazz History****3 Credit hours**

Comprehensive study of the development of jazz and related forms from its inception to recent trends. Relationships between aesthetic, technological, and social changes and their effects. Study of historic recordings.

Grade Mode: Normal Grading Mode**MUS 670 Cur Trends in Mus Ed PreK-5****3 Credit hours**

A comprehensive survey of available materials in singing, reading, listening, rhythm, and creating program of school music for the elementary grades; use of such materials in the methodology of teaching.

Grade Mode: Normal Grading Mode**MUS 675 Music in Early Child (Birth-5)****3 Credit hours**

Ways of using creative activity in the music program, methods of presenting creative song writing, rhythms, instrument construction, instrumental expressing, dramatization, program building.

Grade Mode: Normal Grading Mode

MUS 679 Problem Report**Grade Mode:** Normal Grading Mode**MUS 680 Saxophone****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 681 Thesis****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 682 Flute****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 683 Oboe****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 684 Clarinet****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 685 Bassoon****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 686 French Horn****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 687 Trumpet****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 688 Trombone****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 689 Euphonium****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 690 Tuba****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 691 Violin****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 692 Viola****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 693 Cello****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 694 String Bass****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 695 Piano****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 696 Voice****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**1-3 Credit hours****1-2 Credit hours****1-6 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****1-2 Credit hours****MUS 697 Organ****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 698 Percussion****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**MUS 699 Guitar****Attributes:** No Textbook Required**Grade Mode:** Normal Grading Mode**1-2 Credit hours****1-2 Credit hours****1-2 Credit hours**

Nat Resources & Environment (NRE)

NRE 531 Aqua Toxicology**4 Credit hours**

This course will introduce students to the principles of aquatic toxicology including regulations driving biological criteria, development of laboratory toxicity testing and test methodology.

Grade Mode: Normal Grading Mode

Natural Res Rec Mgt (NRRM)

NRRM 500 Leisure & Aging**3 Credit hours**

A course presenting an overview of leisure services for the elderly. Topics include research results, theories, and modern day trends. A wellness model will be included.

Grade Mode: Normal Grading Mode**NRRM 501 Admin Parks & Recreation****3 Credit hours**

Considers administrative practices and various organizational structures. Includes administrative process, supervision of personnel, budgeting, and public relations. Requires conducting a case study of an existing park and recreation department, including fiscal and personnel policies and an analysis of the effectiveness of such policies.

Grade Mode: Normal Grading Mode**NRRM 502 Assess & Eval Rec Service****3 Credit hours**

Theoretical & practical approach to evaluation as applied to recreation & leisure services. Emphasis will be upon developing sound assessment & evaluation methodology applicable to recreation & leisure studies (PR: NRRM 101)

Grade Mode: Normal Grading Mode**NRRM 510 Rec Area Facility Maint****4 Credit hours**

A study of the knowledge and skills necessary to supervise and administer the general development and maintenance of park and recreation areas and facilities.

Grade Mode: Normal Grading Mode**NRRM 511 Rec Areas & Facilities****3 Credit hours**

Basic considerations in the planning and design of recreation and sport areas, facilities, and structures including associated amenities.

Grade Mode: Normal Grading Mode**NRRM 521 Rec Special Populations****3 Credit hours**

Study of the use of recreation activities with disabled persons. Techniques in programming and adaptation to meet the leisure needs of special groups in today's society. In association with a therapeutic recreation institution, student must develop a new/revised procedure for providing recreation programs at that institution.

Grade Mode: Normal Grading Mode

NRRM 522 Ther Rec Institu Settings 3 Credit hours

Designed to acquaint students with the role and practice of therapeutic recreation in treatment centers. Requires preparation of an annotated bibliography of current literature in this field and conducting of a case study of therapeutic recreation programmatic offerings in such an institution.

Grade Mode: Normal Grading Mode

NRRM 530 Environmental Interpreta 4 Credit hours

Principles and techniques of environmental interpretation as practiced in federal, state, and private agencies. Students must develop and interpretative brochure and evaluate both a facility and a program. 3 lec-2 lab.

Grade Mode: Normal Grading Mode

NRRM 531 Forest Recreation Plan 4 Credit hours

Utilizes the functional planning approach based upon demand and site capability analysis. Student conducts an in-depth recreation capability analysis in an existing park facility, presents this in written form; reviews the current literature on forest recreation development, and makes a final oral report. 3 lec-2 lab.

Grade Mode: Normal Grading Mode

NRRM 542 Op Mgt OHV Trail Systems 3 Credit hours

Diagnosis of OHV problems and development of solutions based upon recognized trail standards and typical resource impacts.

Grade Mode: Normal Grading Mode

NRRM 550 Intro OHV Recreation 3 Credit hours

Grade Mode: Normal Grading Mode

NRRM 551 Plan Design OHV Trails 3 Credit hours

Grade Mode: Normal Grading Mode

NRRM 552 Construction of OHV Trails 3 Credit hours

A course designed to instruct students in contemporary methods and techniques of construction OHV trails and related facilities.

Grade Mode: Normal Grading Mode

NRRM 553 Op Mgt OHV Trail Systems 3 Credit hours

Grade Mode: Normal Grading Mode

NRRM 580 Special Topics 1-4 Credit hours

Study of an advanced topic not normally covered in other courses. 3 lec-2 lab.

Grade Mode: Normal Grading Mode

NRRM 581 Special Topics 1-4 Credit hours

Study of an advanced topic not normally covered in other courses. 3 lec-2 lab.

Grade Mode: Normal Grading Mode

NRRM 582 Special Topics 1-4 Credit hours

Study of an advanced topic not normally covered in other courses. 3 lec-2 lab.

Grade Mode: Normal Grading Mode

NRRM 583 Special Topics 1-4 Credit hours

Study of an advanced topic not normally covered in other courses. 3 lec-2 lab.

Grade Mode: Normal Grading Mode

NRRM 585 Independent Study 1-4 Credit hours

Requires conducting of individual survey/research projects beyond the requirements for undergraduates. Such projects will be individualized to meet the needs of students while accomplishing some practical need in the field.

Grade Mode: Normal Grading Mode

NRRM 586 Independent Study 1-4 Credit hours

Requires conducting of individual survey/research projects beyond the requirements for undergraduates. Such projects will be individualized to meet the needs of students while accomplishing some practical need in the field.

Grade Mode: Normal Grading Mode

NRRM 587 Independent Study 1-4 Credit hours

Requires conducting of individual survey/research projects beyond the requirement for undergraduates. Such projects will be individualized to meet the needs of students while accomplishing some practical need in the field.

Grade Mode: Normal Grading Mode

NRRM 588 Independent Study 1-4 Credit hours

Requires conducting of individual survey/research projects beyond the requirements for undergraduates. Such projects will be individualized to meet the need of students while accomplishing some practical need in the field.

Grade Mode: Normal Grading Mode

Neurology (NEU)

NEU 742 Neurology Clerkship 1-18 Credit hours

Grade Mode: Pass/Fail Grading Mode

NEU 803 Neurosurgery 1-18 Credit hours

Grade Mode: Pass/Fail Grading Mode

NEU 805 Neurolog/Neurosurgery Research 1-18 Credit hours

Grade Mode: Pass/Fail Grading Mode

NEU 813 Pediatric Neurology 1-18 Credit hours

Grade Mode: Pass/Fail Grading Mode

NEU 827 Neurology Sub Internship 1-18 Credit hours

This course is a 4th year rotation with the goal of providing students with an in-depth internship in the management of acute neurologic conditions requiring hospitalization.

Grade Mode: Pass/Fail Grading Mode

NEU 829 Clinical Neurology 1-18 Credit hours

Grade Mode: Pass/Fail Grading Mode

NEU 868 Clinical Neurology Externship 1-12 Credit hours

Grade Mode: Pass/Fail Grading Mode

Nursing (NUR)

NUR 580 Special Topics 1-4 Credit hours

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Normal Grading Mode

NUR 581 Special Topics 1-4 Credit hours

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Normal Grading Mode

NUR 582 Special Topics 1-4 Credit hours

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Normal Grading Mode

NUR 583 Special Topics 1-4 Credit hours

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Normal Grading Mode

NUR 584 Special Topics	1-4 Credit hours	NUR 618 Teaching in Nursing	3 Credit hours
Program of study not normally covered in other courses. Topics vary from semester to semester.		Investigates the responsibilities of the educator in contemporary nursing. Emphasis is upon the instructional process. Practicum allows student to practice the role of the teacher in a variety of educational experiences. (PR: NUR 616)	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
NUR 585 Independent Study	1-4 Credit hours	NUR 619 Practicum: Teach Nursing	6 Credit hours
Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill needs of individual students.		Guided experience in didactic teaching of nursing clinical teaching, supervision and evaluation of students. PRE: NUR 618	
Attributes: No Textbook Required		Pre-req: NUR 618 (may be taken concurrently) and NUR 606.	
Grade Mode: Normal Grading Mode		Concurrent PR: NUR 618	
NUR 586 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill needs of individual students.		NUR 620 Adv Pathophysiology I	2 Credit hours
Grade Mode: Normal Grading Mode		Advanced knowledge of body systems altered by disease and/or injury. The body systems or diseases studied will include: cell, cardiovascular, pulmonary, digestive, musculoskeletal, neurologic and reproductive across the lifespan.	
NUR 587 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill needs of individual students.		NUR 621 Adv Pathophysiology II	2 Credit hours
Grade Mode: Normal Grading Mode		Advanced knowledge of body systems altered by disease and/or injury including: hematologic, genes, immunity, cancer, endocrine, renal, urologic, and integumentary across the lifespan.	
NUR 588 Independent Study	1-4 Credit hours	Pre-req: NUR 620.	
Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill needs of individual students.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		NUR 622 Advanced Physical Assessment	5 Credit hours
NUR 602 Theoretical Found in NUR	3 Credit hours	Introduction to knowledge and skills essential for comprehensive health assessments, analysis of data, formulation of diagnoses, development of the therapeutic plans and implementation of health promotion and maintenance activities. Practicum included. (PR or CR: NUR 602)	
Provides students with opportunity to relate a philosophical and theoretical base to concepts and processes inherent in nursing. Emphasis is on analysis of nursing theories and their relationship and application to research and practice.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		NUR 624 Adv Family Nursing Practice I	5 Credit hours
NUR 604 Leadership in Nursing	3 Credit hours	Provides advanced knowledge of common and acute self-limiting health problems of individuals and families of various age groups. Includes pathology and therapeutic modalities related to specific health problems. Practicum included. (PR: NUR 622 CR: NUR 606)	
Explores the theoretical basis for effective leadership in nursing. Emphasis is placed on analysis of leadership, characteristics and behaviors of leaders, and the role of the nurse leader.		Pre-req: NUR 622.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
NUR 606 Advanced Nursing Research	3 Credit hours	NUR 626 Adv Family Nursing III	5 Credit hours
Provides the opportunity to develop a research approach to nursing situations. Focus is upon the development of a research proposal. (PR or CR: NUR 602)		Provides advanced knowledge of chronic illness and the long-term management of health care problems. Includes pathology and therapeutic modalities related to management of chronic health problems. Practicum included. (PR: NUR 624)	
Pre-req: NUR 602.		Pre-req: NUR 624.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
NUR 608 Issues in Health Care	3 Credit hours	NUR 642 Org Dynamics in Nursing	3 Credit hours
Explores and evaluates concerns germane to contemporary nursing. Focus is upon the role of nursing in addressing health issues affected by social, economical, political and technological forces.		Focus is upon the organizational dynamics as they apply to the nurse manager in health care delivery systems.	
Grade Mode: Normal Grading Mode		Pre-req: NUR 604 (may be taken concurrently).	
NUR 616 Curr Dev in Nursing	3 Credit hours	Concurrent PR: NUR 604	
Introduces the various components in the curriculum development process. Emphasis is on philosophy, objectives, curriculum designs and program evaluation. Factors influencing curriculum development implementing evaluation and nursing curriculum patterns are examined. (NUR 602)		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		NUR 644 Financial Str In Nur Adm	3 Credit hours
		Examines the financial management role of the nurse administrator in relation to economic, political, and societal trends.	
		Pre-req: NUR 606 (may be taken concurrently).	
		Concurrent PR: NUR 606	
		Grade Mode: Normal Grading Mode	

NUR 646 Nur Manage Health Care I**6 Credit hours**

Focuses on the application of theories and principles related to nursing management. Practicum included. (NUR 642, NUR 644).

Pre-req: NUR 606 and NUR 642 and NUR 644.

Grade Mode: Normal Grading Mode

NUR 648 Nur Manage Health Care II**6 Credit hours**

Practicum focuses upon the application of the role components of the nurse manager in selected health care settings. (PR: 646).

Pre-req: NUR 646.

Grade Mode: Normal Grading Mode

NUR 663 Advanced Pharmacology I**2 Credit hours**

Focus on the science of drugs and the application to patient care across the lifespan. Principles of pharmacology covered are: infectious diseases, fluids and electrolytes, peripheral nervous and cardiovascular systems.

Grade Mode: Normal Grading Mode

NUR 664 Advanced Pharmacology II**2 Credit hours**

Focus is on the science of drugs and application to patient care across the lifespan. Drugs affecting the blood, respiratory, gastrointestinal, central nervous, endocrine system, anti-inflammatory, antiallergic and immunologic drugs.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

NUR 681 Thesis**1-6 Credit hours**

Individual research in a selected area of nursing under direction of a faculty member.

Pre-req: NUR 606.

Grade Mode: Normal Grading Mode

NUR 695 Internship: Adv Family Nur**6 Credit hours**

Focus is upon the role of the family nurse practitioner using the case management approach in a supervised contractual work study arrangement with a health care agency. (450 hrs. minimum) (PR: NUR 626)

Pre-req: NUR 626.

Grade Mode: Normal Grading Mode

NUR 720 Adv Pharm Nurse Anes I**4 Credit hours**

Study of general principles of pharmacology, pharmacokinetic, pharmacodynamic, and biochemistry concepts, as they relate to specific anesthetic and adjunct drugs. It will also emphasize integration of this information into clinical areas regarding anesthetic uses, dosages, and side effects of these classes of drugs.

Grade Mode: Normal Grading Mode

NUR 721 Adv Pharm Nurse Anesth II**3 Credit hours**

This course is a continuation of Pharmacology I with an emphasis on drugs acting on the Autonomic Nervous System, local anesthetic agents, drugs for pain management, and cardiovascular drugs.

Grade Mode: Normal Grading Mode

NUR 735 Clinical Practice Inquiry**3 Credit hours**

Integration of conceptual, theoretical, and empirical knowledge as a basis for evidence-based practice in nurse anesthesia. Examination of the processes required to develop best practice models through the systematic analysis of research.

Pre-req: NUR 741.

Grade Mode: Normal Grading Mode

NUR 741 Adv HC Prac/Phys As**6 Credit hours**

The Introduction of Health Care Clinical Practicum provides the student with a beginning knowledge and proficiency in all phases of anesthetic management (pre-anesthesia, induction, maintenance, post-anesthesia)

Grade Mode: Credit/No Credit Grade Only

NUR 741-A Health Care Practicum**5 Credit hours**

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.

Pre-req: NUR 741.

Grade Mode: Normal Grading Mode

NUR 741-C Health Care Practicum**5 Credit hours**

Continuation of MPNA 741-A

Pre-req: NUR 741-B.

Grade Mode: Normal Grading Mode

NUR 741A Health Care Clinical Practicum**1 Credit hour**

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.

Pre-req: NUR 741.

Grade Mode: Credit/No Credit Grade Only

NUR 741B Nurse Anesth Prof Practice**3 Credit hours**

Continuation of NUR 741.

Pre-req: NUR 741.

Grade Mode: Credit/No Credit Grade Only

NUR 741C Health Care Practicum**6 Credit hours**

Continuation of NUR 741.

Pre-req: NUR 741.

Grade Mode: Credit/No Credit Grade Only

NUR 744 Regional Anesthesia**1 Credit hour**

Continuation and conclusion of materials started in NUR 741.

Pre-req: NUR 741.

Grade Mode: Normal Grading Mode

Obstetrics/Gynecology (OBG)

OBG 710 Obstetrics/Gyn Clerkship**8 Credit hours**

Grade Mode: Normal Grading Mode

OBG 712 OB-GYN Clerkship RPAP**4 Credit hours**

Comprehensive coverage at the introductory level of Obstetrics and Gynecology in the Rural Physician Assistant Program. The reduction in credit to accommodate altered schedule.

Grade Mode: Normal Grading Mode

OBG 713 Ob/Gyn Clerkship Kellogg**4 Credit hours**

Comprehensive coverage at the introductory level of obstetrics & gynecology (in the Kellogg curriculum). The reduction in credit from the standard clerkship to accommodate Kellogg schedule.

Grade Mode: Normal Grading Mode

OBG 742 OBG Clerkship**1-18 Credit hours**

Grade Mode: Pass/Fail Grading Mode

OBG 780 Elective Special Projects**1-18 Credit hours**

Grade Mode: Pass/Fail Grading Mode

OBG 785 Independent Study**1-15 Credit hours**

Independent Study in Obstetrics/Gynecology is designed to allow the student opportunity to work with a faculty member on a topic of special interest.

Grade Mode: Credit/No Credit Grade Only**OBG 813 Gynecologic Surgery****1-18 Credit hours****Grade Mode:** Pass/Fail Grading Mode**OBG 814 Pediatric/Adoles Gynecology****1-18 Credit hours**

Fourth year elective designed to expand on the knowledge base and information gathering and clinical reasoning skills that were introduced in the third year clerkship.

Grade Mode: Pass/Fail Grading Mode**OBG 820 Obstetrics & Gynecology****1-18 Credit hours****Grade Mode:** Normal Grading Mode**OBG 825 Family Planning****1-18 Credit hours****Grade Mode:** Normal Grading Mode**OBG 827 Sub-I in Obstetrics****1-18 Credit hours**

Year IV Subinternship in Obstetrics four week duration.

Grade Mode: Pass/Fail Grading Mode**OBG 830 Obstetrics & Gynecology****1-18 Credit hours****Grade Mode:** Normal Grading Mode**OBG 831 Obstetrics & Gynecology****1-18 Credit hours****Grade Mode:** Normal Grading Mode**OBG 835 Maternal-Fetal Medicine****1-18 Credit hours**

To provide the principles of Maternal-Fetal Medicine, going beyond a basic discourse in obstetrics and provide sophisticated material in the clinical and basic sciences of Maternal-Fetal Medicine.

Grade Mode: Pass/Fail Grading Mode**OBG 840 Ob/Gyn Subinternship****1-15 Credit hours****Pre-req:** OBG 710.**Grade Mode:** Normal Grading Mode**OBG 850 GYN Oncology****1-18 Credit hours**

This elective is designed for students who anticipate residency in Obstetrics and Gynecology, General Surgery or Oncologic subspecialties. Interest in operating room involvement and patient care an absolute requirement.

Grade Mode: Pass/Fail Grading Mode**OBG 868 Obstetrics Externship****1-18 Credit hours**

Out-of-State Externship

Grade Mode: Pass/Fail Grading Mode**OBG 888 Rural Health Initia Elec Alt****1-18 Credit hours**

Acquaints students with issues of rural community health and wellness. Provides students with knowledge, attitudes and skills to participate in a changing health care environment.

Grade Mode: Normal Grading Mode**OBG 898 Obstetrics & Gynecology****1-18 Credit hours****Grade Mode:** Normal Grading Mode**OBG 899 Clerkship in Ob/Gyn****1-18 Credit hours****Grade Mode:** Normal Grading Mode

Ophthalmology (OPH)

OPH 804 Ophthalmology**1-18 Credit hours**

This elective will acquaint the senior medical student with the techniques of examination of the eye, common fundus pathology, cataracts, glaucoma, common external problems and ophthalmic emergencies. The student may also be exposed to ophthalmic surgery, pre-op and post-operative care.

Grade Mode: Normal Grading Mode

Orthopaedics (ORT)

ORT 807 Orthopaedics**1-18 Credit hours****Grade Mode:** Normal Grading Mode**ORT 808 Intro Musculoskeletal Medicine****1-18 Credit hours**

A fourth year elective in non-operative musculoskeletal care is offered, providing experience in multidisciplinary management of diseases of the musculoskeletal system. Rotations may include inpatient medical management of orthopaedic patients, non-operative sports medicine, general clinical orthopaedics, rheumatology, osteoporosis and physical therapy. This course is Pass/Fail. There is no call requirement.

Grade Mode: Pass/Fail Grading Mode**ORT 809 Orthopaedic Research Elective****1-18 Credit hours**

A research elective offered in the field of orthopaedics, primarily to 4th year medical students. Students interested in enrolling must first contact the course directors to discuss research opportunities that are available or may be accommodated by the department. Students will be expected to complete their project in the time allotted. Clinical work is proscribed unless it is germane to the project.

Grade Mode: Pass/Fail Grading Mode**ORT 827 Sub-I in Orthopaedics****1-18 Credit hours**

A fourth year subinternship in orthopaedic surgery is offered, providing experience in office and hospital management of diseases of the musculoskeletal system. Preference is given to those considering matching in orthopaedic surgery.

Grade Mode: Pass/Fail Grading Mode**ORT 868 Orthopedic Externship****1-12 Credit hours****Grade Mode:** Pass/Fail Grading Mode

Pathology (PTH)

PTH 620 Pathology**7 Credit hours**

General principles of pathology, systemic pathology, and holistic integration with laboratory medicine and autopsy- clinical-and-cytologic material.

Grade Mode: Normal Grading Mode**PTH 621 Pathology****7 Credit hours**

General principles of pathology, systemic pathology, and holistic integration with laboratory medicine and autopsy- clinical-and-cytologic material.

Grade Mode: Normal Grading Mode**PTH 720 Pathology****1-18 Credit hours****Grade Mode:** Normal Grading Mode**PTH 721 Pathology****7 Credit hours****Grade Mode:** Normal Grading Mode**PTH 780 Elective Special Projects****1 Credit hour****Grade Mode:** Normal Grading Mode

PTH 785 Independent Study
Grade Mode: Credit/No Credit Grade Only

PTH 802 Specialization Pathology
Grade Mode: Normal Grading Mode

PTH 803 The Practice of Pathology
Grade Mode: Pass/Fail Grading Mode

PTH 868 Pathology Externship
 Out-of-State Externship
Grade Mode: Pass/Fail Grading Mode

PTH 899 Clerkship in Pathology
Grade Mode: Normal Grading Mode

Pediatrics (PED)

PED 713 Peds Clerkship Kellogg 4 Credit hours
 Comprehensive coverage at the introductory level of pediatrics (in the Kellogg curriculum). The reduction in credit from standard clerkship to accommodate Kellogg curriculum.
Grade Mode: Normal Grading Mode

PED 730 Pediatric Clerkship 8 Credit hours
Grade Mode: Normal Grading Mode

PED 742 PED Clerkship 1-18 Credit hours
Grade Mode: Pass/Fail Grading Mode

PED 780 Elective Special Projects 1 Credit hour
Grade Mode: Normal Grading Mode

PED 785 Independent Study 1-15 Credit hours
Grade Mode: Credit/No Credit Grade Only

PED 801 Ambulatory Pediatrics 1-18 Credit hours
Grade Mode: Pass/Fail Grading Mode

PED 803 Primary Care Pediatrics 1-18 Credit hours
Grade Mode: Pass/Fail Grading Mode

PED 805 Clinical Neonatology 1-18 Credit hours
Grade Mode: Pass/Fail Grading Mode

PED 806 Pediatric Community Med 1-18 Credit hours
Grade Mode: Pass/Fail Grading Mode

PED 807 Pediatric Critical Care 1-18 Credit hours
 Intensive care management of the critically ill child.
Grade Mode: Pass/Fail Grading Mode

PED 808 Cardiology 1-18 Credit hours
Grade Mode: Pass/Fail Grading Mode

PED 809 Pediatric Research 1-18 Credit hours
 To introduce students to clinical research. Expose students to practical application of biostatistics. Prepare students for professional presentations.
Grade Mode: Pass/Fail Grading Mode

PED 811 Subinternship Pediatrics 1-18 Credit hours
Grade Mode: Normal Grading Mode

PED 812 Pediatric Gastroenterology 1-18 Credit hours
 This elective will introduce the student to the pediatric subspecialty of gastroenterology. They will participate in supervised clinical evaluation of patients on the hospital ward and in the ambulatory setting.
Grade Mode: Pass/Fail Grading Mode

PED 813 Pediatric Neurology 1-18 Credit hours
 This elective will introduce the student to the pediatric subspecialty of neurology. It will incorporate neuro- anatomy, neurophysiology, neurochemistry, developmental and metabolic neurology into one foundation in approaching neurological problems in infancy and childhood.
Grade Mode: Normal Grading Mode

PED 814 Adolescent Medicine 1-18 Credit hours
 This elective is designed to introduce the fourth year student to the spectrum of Adolescent Health Care. The student will be exposed to the multi-disciplinary approach to adolescent health care.
Grade Mode: Pass/Fail Grading Mode

PED 815 Subspecialty Potpourri 1-18 Credit hours
Grade Mode: Normal Grading Mode

PED 820 PED Hematology/Oncology 1-18 Credit hours
 This elective will introduce the student to the sub- speciality of hematology/oncology and will involve them in the management and care of inpatients as well as outpatients with a broad spectrum of hematologic and oncologic disorders.
Grade Mode: Pass/Fail Grading Mode

PED 825 Child Development & Behavior 1-18 Credit hours
 This elective will introduce the student to the subspecialty of Child Development and Behavior. Developmental problems in different age groups are diagnosed and treatment plans are formulated. Follow- up cases will also be seen.
Grade Mode: Pass/Fail Grading Mode

PED 827 Sub-I in Pediatrics 1-18 Credit hours
 The student will function as a member of the house staff team observing and participating in the delivery of care of the pediatric hospital patient from the initial admission with the attending and resident. The complete evaluation of the patient, the planning of the clinical appraisal and care will be under the management of the student. All procedures, laboratory follow-through and therapeutic management of the patient will be coordinated with the pediatric resident to whom the student is assigned.
Grade Mode: Pass/Fail Grading Mode

PED 868 Pediatrics Externship 1-18 Credit hours
 Out-of-State Externship
Grade Mode: Pass/Fail Grading Mode

PED 888 Rural Health Initia Elec Alt 1-18 Credit hours
 Acquaints students with issues of rural community health and wellness. Provides students with knowledge, attitudes and skills to participate in a changing health care environment.
Grade Mode: Normal Grading Mode

PED 895 Infectious Diseases 1-18 Credit hours
Grade Mode: Normal Grading Mode

PED 896 Endocrinology 1-18 Credit hours
Grade Mode: Normal Grading Mode

PED 898 Allergy/Immunology 1-18 Credit hours
Grade Mode: Pass/Fail Grading Mode

PED 899 Clerkship in Pediatrics 1-18 Credit hours
Grade Mode: Normal Grading Mode

Pharmaceutical Sciences (MSPS)

MSPS 511 Grad Research Seminar 1 Credit hour

This course lays the foundation in oral communication for graduate students in pharmaceutical sciences. It provides experience in scientific presentation with an emphasis on defense of data and interpretation.

Grade Mode: Normal Grading Mode

MSPS 512 Med Chem & Drug Disc 1 Credit hour

This course gives an overview of drug discovery principles and techniques for the practicing medicinal chemist.

Grade Mode: Normal Grading Mode

MSPS 513 Biopharm 2 1 Credit hour

Topics include mechanisms immediate and sustained drug release in formulations; novel drug delivery systems; drug pre-formulation; the drug approval process; drug preparation, liberation, absorption and stability of dosage forms.

Grade Mode: Normal Grading Mode

MSPS 514 Resb Conduct Research 1 Credit hour

This course will help graduate students in pharmaceutical science become familiar with the general ethical issues that will arise through the course of basic science research. This course will help graduate students understand how to conduct ethical research, identify and focus on unethical situations in research, and how to solve future unethical dilemmas that may arise in the workplace.

Grade Mode: Normal Grading Mode

MSPS 531 Regulatory Affairs 3 Credit hours

An overview of USFDA's regulation on drug. Topics covered include pharmaceutical regulatory agencies and organizations around the world and their International Regulatory Audits for Pharma, International Conference on Harmonization (ICH) guidelines, Pharmacopoeias and national formulary, US Food and Drug Administration (USFDA): History of USFDA Law and Regulation, GLP, MMP, NDA, and ANDA.

Grade Mode: Normal Grading Mode

MSPS 542 Science Seminars 1 Credit hour

This course will help graduate students in the pharmaceutical sciences learn the basics of scientific communication and how to critically evaluate scientific literatures. Students must complete four versions of this course for credit. For the first three course offering, the student will receive a "CR" (credit) or "NC" (no credit). Upon completion of the fourth version of the course the student will receive a letter grade.

Grade Mode: Normal Grading Mode

MSPS 581 Special Topics 1-3 Credit hours

Special Topics

Grade Mode: Normal Grading Mode

MSPS 585 Independent Study 1-3 Credit hours

Independent Study

Grade Mode: Normal Grading Mode

MSPS 586 Problem Report 1-3 Credit hours

Problem Report

Grade Mode: Normal Grading Mode

MSPS 612 Pharm Analysis 1 Credit hour

Pharmaceutical Analysis

Grade Mode: Normal Grading Mode

MSPS 613 Pharmcometrics Recitation 1 Credit hour

Pharmacometrics recitation

Grade Mode: Normal Grading Mode

MSPS 632 Prod Dev by Quality Design 3 Credit hours

Product Development by Quality by Design

Grade Mode: Normal Grading Mode

MSPS 699 Thesis 1-6 Credit hours

Thesis

Grade Mode: Normal Grading Mode

Pharmacology (PMC)

PMC 610 Intro Pharmacology 3 Credit hours

Grade Mode: Normal Grading Mode

PMC 615 Pharmacology Reviews 1 Credit hour

Grade Mode: Normal Grading Mode

PMC 620 Medical Pharmacology 8 Credit hours

An introduction to the basic concepts of drug actions and therapeutic principles governing drug therapy. Emphasis is placed on general mechanisms, therapeutic uses and toxicity of prototypic drugs.

Pre-req: BIC 620.

Grade Mode: Normal Grading Mode

PMC 621 Medical Pharmacology I 6 Credit hours

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.

Pre-req: BMS 600.

Grade Mode: Normal Grading Mode

PMC 622 Medical Pharmacology II 2 Credit hours

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 mens and womens health, dermatological agents, and toxicology.

Pre-req: BMS 600.

Grade Mode: Normal Grading Mode

PMC 625 Drug Metabolism 3 Credit hours

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.

Grade Mode: Normal Grading Mode

PMC 630 Chem Aspects Pharmacology 3 Credit hours

An introduction to the chemical principles of pharmacology. The chemical classification, acid-base chemistry and stereo- chemical properties of drugs and the reactivity of drugs with biological systems will be discussed.

Grade Mode: Normal Grading Mode

PMC 633 Vistas in Pharmacology 3 Credit hours

Pre-req: PMC 620.

Grade Mode: Normal Grading Mode

PMC 635 Neuropharmacology 3 Credit hours

A study of the actions of drugs on the nervous system.

Pre-req: BMS 600.

Grade Mode: Normal Grading Mode

PMC 639 Neuropharm Res Tech**3 Credit hours**

Class participants will be exposed to state-of-the-art neuropharmacology research techniques while in the laboratories of neuropharmacology faculty.

Grade Mode: Credit/No Credit Grade Only

PMC 640 Behavioral Pharmacology**3 Credit hours**

Behavioral methods for assaying drug action.

Pre-req: PMC 635.

Grade Mode: Normal Grading Mode

PMC 643 Intro Cardiopulmonary Pharm**3 Credit hours**

A general overview of the principles of pharmacology and the mechanisms and effects of cardiovascular and respiratory drugs.

Grade Mode: Normal Grading Mode

PMC 645 Adv Cardiopulmonary Pharm**3 Credit hours**

An indepth presentation of pharmacological aspects of cardiovascular and pulmonary systems. Current knowledge, principles and methods used in cardiopulmonary research will be discussed.

Pre-req: PMC 620 or PMC 643.

Grade Mode: Normal Grading Mode

PMC 650 General Toxicology**3 Credit hours**

Pre-req: PMC 620.

Grade Mode: Normal Grading Mode

PMC 655 Toxicology Reviews**1 Credit hour**

This course will provide a presentation and discussion of current literature in the area of toxicology. Fundamental principles and new discoveries will be emphasized.

Grade Mode: Normal Grading Mode

PMC 675 Special Topics**1-4 Credit hours**

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode

PMC 676 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

PMC 677 Special Topics**1-4 Credit hours**

Grade Mode: Normal Grading Mode

PMC 720 Medical Pharmacology**8 Credit hours**

Grade Mode: Normal Grading Mode

PMC 780 Elective Special Projects**1 Credit hour**

Grade Mode: Normal Grading Mode

PMC 785 Clinical Pharmacology**1-18 Credit hours**

Independent Study of Pharmacology

Grade Mode: Pass/Fail Grading Mode

PMC 868 PMC Externship**1-18 Credit hours**

Out-of-State Externship

Grade Mode: Pass/Fail Grading Mode

Pharmacy (PHAR)

PHAR 511 Clinical Immunology**1 Credit hour**

Skills 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.

Grade Mode: Normal Grading Mode

PHAR 521 Integrated Laboratory I**2 Credit hours**

This is a laboratory course to provide hands-on experience that complements didactic presentations in PHAR 531 and PHAR 532.

Pre-req: PHAR 531.

Co-req: PHAR 532

Grade Mode: Normal Grading Mode

PHAR 522 Fund Med Chem**2 Credit hours**

An introductory course providing the fundamental basics of drug action. Specifically, the course will cover the physicochemical properties of drugs, basic principles of medical chemistry and structure activity relationships, including drug-receptor interactions, theories of drug action and drug metabolism.

Grade Mode: Normal Grading Mode

PHAR 531 Biopharmaceutics I**3 Credit hours**

Topics covered include the physicochemical 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.

Grade Mode: Normal Grading Mode

PHAR 532 Biopharmaceutics II**3 Credit hours**

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 dosage.

Pre-req: PHAR 531.

Co-req: PHAR 521

Grade Mode: Normal Grading Mode

PHAR 541 Pharmacy Practice I**4 Credit hours**

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.

Grade Mode: Normal Grading Mode

PHAR 542 Immunology and Microbiology**4 Credit hours**

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 disease.

Grade Mode: Normal Grading Mode

PHAR 543 Pharmacy Practice II**4 Credit hours**

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.

Pre-req: PHAR 541.

Grade Mode: Normal Grading Mode

PHAR 544 Prin of Disease & Drug Action**4 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 545 Therapeutics I****4 Credit hours**

Students will learn about the therapeutic use, human physiology, pharmacologic and chemical properties of over-the-counter medication and non-medication interventions for both treatment and prevention of disease.

Pre-req: PHAR 541.**Grade Mode:** Normal Grading Mode**PHAR 546 Pharmaceutical Biochemistry****4 Credit hours**

This course is designed to provide biochemistry fundamentals to PharmD students. Topics covered include structures and properties of water and biomolecules (proteins, lipids, and nucleic acids), enzymes and enzyme kinetics, membranes, receptors, transporters, signaling, human metabolism, hormonal regulation of metabolism, and basics of genomics, gene regulation, and proteins synthesis. Examples of basic principles covered in this class will be illustrated by use of the top 200 drugs.

Grade Mode: Normal Grading Mode**PHAR 611 Integrated Laboratory II****1 Credit hour**

Practical hands-on experience in modern scientific methods used in biochemistry, pharmaceuticals, pharmacology, pharmacometrics; and analytical methods employed to detect, characterize, and quantitate naturally occurring substances and drug molecules.

Grade Mode: Normal Grading Mode**PHAR 612 Therapeutic Drug Dosing****1 Credit hour**

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.

Grade Mode: Normal Grading Mode**PHAR 621 Pharmacy Law & Ethics****2 Credit hours**

An applied analysis of federal and West Virginia state law and ethical standards in the practice of Pharmacy and Pharmaceutical Care.

Grade Mode: Normal Grading Mode**PHAR 622 Drug Info & Comm Skills****2 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 631 Pharmacometrics****3 Credit hours**

Topics covered include the basic theory of pharmacokinetics and pharmacodynamics; process and mechanisms controlling the rate and extent of drug absorption and systemic availability; bioavailability and bioequivalence.

Grade Mode: Normal Grading Mode**PHAR 632 PPM Leadership****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 633 Patient Care Skills Lab****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 634 PPM Finance****3 Credit hours**

The contemporary practice of pharmacy in the healthcare system as it fits into the business environment. Healthcare systems, pharmacoeconomics, planning, evaluating, and decision-making through financial report analysis/case study are stressed.

Grade Mode: Normal Grading Mode**PHAR 635 Research Outcomes Patient Care****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 661 Therapeutics II****6 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 671 Therapeutics III****7 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 711 Med Therapy Management****1 Credit hour**

The student will learn to resolve medication-related problems to reduce costs and improve outcomes.

Grade Mode: Normal Grading Mode**PHAR 712 Capstone Diabetes Care****1 Credit hour**

Diabetes care capstone.

Grade Mode: Normal Grading Mode**PHAR 721 Therapeutics 7****2 Credit hours**

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 co-morbidities and other health conditions.

Grade Mode: Normal Grading Mode**PHAR 722 PPM Patient Safety****2 Credit hours**

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.

Grade Mode: Normal Grading Mode

- PHAR 731 Case Studies** **3 Credit hours**
Students will apply the principles of patient care, practice management, and public health to drug therapy issues through student-centered, problem-based instructional processes.
Grade Mode: Normal Grading Mode
- PHAR 732 Clin Aspects Rx Meds** **3 Credit hours**
A discussion of the clinical aspects of medications will be covered with an emphasis on 1) pharmaceutical calculations and 2) analysis of the differences between various drugs and drug classes.
Grade Mode: Normal Grading Mode
- PHAR 733 Residency Preparation** **3 Credit hours**
This course will help to prepare the pharmacy student for completion of postgraduate training, exploring processes including research project design and execution, interviewing, residency applications, and professional development.
Grade Mode: Normal Grading Mode
- PHAR 734 Medications of Abuse** **3 Credit hours**
This course discusses medications of abuse and their impact on society, reviews the history of substance use disorder relating them to current affairs and the impact on society.
Grade Mode: Normal Grading Mode
- PHAR 741 Ther-Endocrine** **4 Credit hours**
Students will learn about the therapeutic use of medication and non-medication interventions for reproduction, and treatment and prevention of endocrine and genitourinary diseases.
Grade Mode: Normal Grading Mode
- PHAR 751 Neuro & Psychiatric Dis** **5 Credit hours**
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.
Grade Mode: Normal Grading Mode
- PHAR 761 HemeOnc Nutrition Hepa MS** **6 Credit hours**
Students will learn treatment/prevention of heme-onc, nutrition, hepatic and musculoskeletal diseases including the pathophysiology, pharmacology and therapy. This course emphasizes the pharmacist as a health care provider.
Grade Mode: Normal Grading Mode
- PHAR 781 Veterinary Pharmacy** **3 Credit hours**
To instruct students in the administration, clinical pharmacology, clinical applications, diseases, medication safety and comparative dosing of veterinary medications that a pharmacist may encounter in the community pharmacy setting.
Grade Mode: Normal Grading Mode
- PHAR 801 Special Topics I** **1-6 Credit hours**
An opportunity for individual students to gain advanced experiences in practice, research, or service. Students will identify mentor and jointly develop individualized learning outcomes and a learning plan.
Grade Mode: Normal Grading Mode
- PHAR 802 Special Topics II** **1-6 Credit hours**
An opportunity for students to didactically explore advanced topics within the profession of pharmacy.
Grade Mode: Normal Grading Mode
- PHAR 811 Pharm Prac Exp I (IPPE 1)** **1 Credit hour**
Grade Mode: Normal Grading Mode
- PHAR 812 Pharm Prac Exp II (IPPE II)** **1 Credit hour**
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.
Grade Mode: Normal Grading Mode
- PHAR 813 IPPE 3 Community 2** **1 Credit hour**
Builds on the foundation of the Community Pharmacy 1 experience. The student will demonstrate critical thinking and problem solving skills, topical compounding skills, and professional attitude and behaviors.
Grade Mode: Normal Grading Mode
- PHAR 814 Intro Phar Institutions 2** **1 Credit hour**
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.
Grade Mode: Normal Grading Mode
- PHAR 815 Phar Prac Exp 5 IPPE 5** **1 Credit hour**
Introduces pharmacist student to the ambulatory care setting. Student will demonstrate the ability to develop a therapeutic plan that includes the selection of appropriate drug therapy based on patient characteristics.
Grade Mode: Normal Grading Mode
- PHAR 816 Inpatient Clinical Skills** **1 Credit hour**
Introduces the pharmacy student to the clinical skills in an institutional setting needed to be successful. Student will demonstrate appropriate drug dosing and drug selection based on patient characteristics.
Grade Mode: Normal Grading Mode
- PHAR 817 Intro Phar Prac Exp IPPE 7** **1 Credit hour**
Students are exposed to the role and responsibilities of a pharmacy team leader, manager, or director and the application of management strategy, tools, and responsibilities.
Grade Mode: Normal Grading Mode
- PHAR 818 Education IPPE 8** **1 Credit hour**
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.
Grade Mode: Normal Grading Mode
- PHAR 819 Long Care of Patient** **1 Credit hour**
This course will provide the student with pharmacy care of a patient over an extended period of time. Students will be exposed to the role and responsibilities of the pharmacist. The student will demonstrate knowledge of the medical regimen and an understanding of why the medical regimen was or was not modified over a period of time.
Grade Mode: Normal Grading Mode
- PHAR 821 IPPE Institutional** **2 Credit hours**
The Introductory Pharmacy Practice Experience in Institutions is designed to allow the student to demonstrate knowledge and skill learned in the classroom while concurrently gaining understanding to the systems and function of the pharmacy in an institutional setting.
Grade Mode: Normal Grading Mode

PHAR 881 APPE 1-General Medicine**5 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 882 APPE 2-Amb Care/Prim Care****5 Credit hours**

The Amb Care / Prim 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.

Grade Mode: Normal Grading Mode**PHAR 883 APPE 3-Advanced Community****5 Credit hours**

This is a 5-week advanced pharmacy practice experience in a community pharmacy setting that focuses on enhancing a student's ability to provide patient-centered pharmacy care services such as disease management, medication therapy management, preventative health screening, immunizations, specialty compounding, patient education, or other advanced patient care activities.

Grade Mode: Normal Grading Mode**PHAR 884 APPE 4-Adv Institutional****5 Credit hours**

This is a 5-week experiential rotation in an approved health system that prepares the student to function within 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 function as a staff hospital pharmacist.

Grade Mode: Normal Grading Mode**PHAR 885 APPE 5-Geriatrics****5 Credit hours**

This 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 patient.

Grade Mode: Normal Grading Mode**PHAR 886 APPE 6-Diverse Populations****5 Credit hours**

This is a 5-week required advanced pharmacy practice experience in a community, ambulatory, or other pharmacy setting to a medically under-served population. Students will utilize a variety of skills obtained throughout the curriculum. 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).

Grade Mode: Normal Grading Mode**PHAR 887 APPE 7 & 8-Electives****5 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHAR 891 Pharmacy Capstone****4 Credit hours**

Pharmacy capstone experience where students are challenged to demonstrate acquisition of pharmacy skill, knowledge, and behavior competency.

Grade Mode: Normal Grading Mode

Philosophy (PHL)

PHL 500 Ancient Philosophy**3 Credit hours**

Advanced study of major philosophers drawn from the ancient Greek and Roman period.

Grade Mode: Normal Grading Mode**PHL 501 Modern Philosophy****3 Credit hours**

Advanced study of major movements in philosophy from the 17th century on, movements such as rationalism, empiricism, idealism, and existentialism. (PR: Any philosophy course)

Grade Mode: Normal Grading Mode**PHL 520 Metaphysics****3 Credit hours**

A study of what Aristotle called "first philosophy" or the study of being -- later called metaphysics.

Grade Mode: Normal Grading Mode**PHL 521 Philosophy of Knowledge****3 Credit hours**

Advanced study of the nature and possibility of knowledge. (PR: Any philosophy course)

Grade Mode: Normal Grading Mode**PHL 551 Phil of History & Culture****3 Credit hours**

Ancient and modern theories of the meaning and consequence of history and culture.

Grade Mode: Normal Grading Mode**PHL 555 Philosophy of Religion****3 Credit hours**

Theories of the nature and functions of religion, including the meaning of religious language and problems of belief.

Grade Mode: Normal Grading Mode**PHL 560 Phil of Politics & Power****3 Credit hours**

Advanced study of the significance or the place in human reality of political organization, negotiation, strategy and power. (PR: Any philosophy course)

Grade Mode: Normal Grading Mode**PHL 565 Existential Philosophy****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PHL 570 Philosophy of Logic****3 Credit hours**

Advanced study of the nature of logic: whether logic is possible at all, how far it applies, and whether and how there can be conflicting logics. (PR: Any philosophy course)

Grade Mode: Normal Grading Mode**PHL 580 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**PHL 581 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**PHL 582 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**PHL 583 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode

PHL 585 Independent Study
Grade Mode: Normal Grading Mode

1-4 Credit hours

PHL 586 Independent Study
Grade Mode: Normal Grading Mode

1-4 Credit hours

PHL 587 Independent Study
Grade Mode: Normal Grading Mode

1-4 Credit hours

PHL 588 Independent Study
Attributes: No Textbook Required
Grade Mode: Normal Grading Mode

1-4 Credit hours

PHL 599 Humanities Seminar
Grade Mode: Normal Grading Mode

3 Credit hours

Physical Science (PS)

PS 500 Astronomy **3 Credit hours**

A study of the stars and planets and galaxies, planetary motion, cosmology and cosmography. Designed to assist teachers and others to develop an interest in astronomy.

Pre-req: PS 500L (may be taken concurrently).

Concurrent PR: PS 500L

Co-req: PS 500L

Grade Mode: Normal Grading Mode

PS 500L Astronomy Laboratory **1 Credit hour**

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.

Co-req: PS 500

Grade Mode: Normal Grading Mode

PS 510 Remote Sensing w Applications **4 Credit hours**

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.

Grade Mode: Normal Grading Mode

PS 511 Image Processing/Modeling **4 Credit hours**

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 510)

Pre-req: PS 510.

Grade Mode: Normal Grading Mode

PS 580 Special Topics **1-4 Credit hours**

Grade Mode: Normal Grading Mode

PS 581 Special Topics **1-4 Credit hours**

Grade Mode: Normal Grading Mode

PS 582 Special Topics **1-4 Credit hours**

Grade Mode: Normal Grading Mode

PS 583 Special Topics **1-4 Credit hours**

Grade Mode: Normal Grading Mode

PS 585 Independent Study **1-4 Credit hours**

Grade Mode: Normal Grading Mode

PS 586 Independent Study **1-4 Credit hours**

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

PS 587 Independent Study **1-4 Credit hours**

Grade Mode: Normal Grading Mode

PS 588 Independent Study **1-4 Credit hours**

Grade Mode: Normal Grading Mode

PS 646 Sem Rec Develop Phys Sci **3 Credit hours**

Grade Mode: Normal Grading Mode

PS 648 Mod Physics for Teachers **3-5 Credit hours**

A course designed to provide additional background material in atomic and nuclear physics for teachers. Lecture and laboratory.

Grade Mode: Normal Grading Mode

PS 649 Electronics for Teachers **3-5 Credit hours**

A course in basic theory of electronics for teachers. Lecture and laboratory.

Grade Mode: Normal Grading Mode

PS 650 Special Topics **1-4 Credit hours**

Advanced special topics to provide additional group research and classroom/laboratory opportunities.

Grade Mode: Normal Grading Mode

PS 651 Special Topics **1-4 Credit hours**

Advanced special topics to provide additional group research and classroom/laboratory opportunities.

Grade Mode: Normal Grading Mode

PS 660 Independent Studies **1-4 Credit hours**

Advanced independent study topics to provide additional individual research and classroom/laboratory opportunities.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

PS 661 Independent Studies **1-4 Credit hours**

Advanced independent study topics to provide additional individual research and classroom/laboratory opportunities.

Grade Mode: Normal Grading Mode

PS 670 Advanced Practicum **1-4 Credit hours**

Advanced problem solving, geobiophysical modeling, and project development techniques in the physical sciences.

Pre-req: PS 510 and PS 511.

Grade Mode: Normal Grading Mode

PS 681 Thesis Research **1-6 Credit hours**

Credit earned by pursuing directed original research in a physical science area. A grade of PR may be reported at the close of each semester.

Grade Mode: Normal Grading Mode

PS 682 Thesis Research **1-6 Credit hours**

Credit earned by pursuing directed original research in a physical science area. A grade of PR may be reported at the close of each semester.

Grade Mode: Normal Grading Mode

Physical Therapy (PT)

PT 700 Gross Anatomy for PT **5 Credit hours**

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.

Grade Mode: Normal Grading Mode

PT 701 Neuroanatomy**4 Credit hours**

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.

Grade Mode: Normal Grading Mode**PT 702 Neuro Evaluation****1 Credit hour**

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.

Grade Mode: Normal Grading Mode**PT 704 Neurorehabilitation****4 Credit hours**

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.

Grade Mode: Normal Grading Mode**PT 710 Intro to Human Movement****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PT 711 Human Movement I****4 Credit hours**

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.

Grade Mode: Normal Grading Mode**PT 712 Human Movement II****4 Credit hours**

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.

Grade Mode: Normal Grading Mode**PT 713 Human Movement III****2 Credit hours**

Assessment of constraints to normal movement, application of standardized tools for assessment of movement dysfunction, examination of statistical data (population specific reliability, validity, sensitivity, specificity, odds ratios) of said tools.

Grade Mode: Normal Grading Mode**PT 720 Advanced Clinical Physiology****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PT 721 Applied Ex Phys****3 Credit hours**

Physiological effects of exercise and training in healthy individuals and individuals with pathological dysfunction.

Grade Mode: Normal Grading Mode**PT 731 Clinical Skills****3 Credit hours**

Theory/practice of essential physical therapy skills, including clinical decision making, interview, postural and functional assessment, safe patient handling techniques of positioning, bed mobility, transfers, and use of assistive devices.

Grade Mode: Normal Grading Mode**PT 732 Therapeutic Interventions****3 Credit hours**

This 3 credit hour course introduces students to teaching and learning principles through the application of physical, thermal, and mechanical modalities and therapeutic interventions. Therapeutic interventions include activities to improve joint and muscles.

Grade Mode: Normal Grading Mode**PT 741 Medical Pathology in PT I****2 Credit hours**

Pathological conditions, and medical and surgical considerations for treatment of genetic, gastrointestinal renal, endocrine and metabolic, immune, hematologic, and infectious disorders in patients treated by physical therapists.

Grade Mode: Normal Grading Mode**PT 742 Medical Pathology in PT II****2 Credit hours**

Pathological conditions, and medical and surgical considerations for treatment of musculoskeletal disorders in patients treated by physical therapists.

Grade Mode: Normal Grading Mode**PT 744 Med Pathology in PT IV****3 Credit hours**

This course reviews the functional neuroanatomy and neuropathology correlated with select neuropathological conditions or injury, focusing on etiology, epidemiology, medical/surgical considerations, neural substrates of cognitive, perceptual, and sensorimotor function in patients treated by physical therapists.

Grade Mode: Normal Grading Mode**PT 746 Medical Tests and Measurements****1 Credit hour**

Basic principles of medical diagnostic tests, such as laboratory tests, medical imaging, sonography and EKG, commonly encountered in physical therapy.

Grade Mode: Normal Grading Mode**PT 747 Pharmacology in Rehab****2 Credit hours**

Examination of the effects of commonly used prescription, over the counter and homeopathic drugs. Focus on method of action, indications, contraindications, side effects and impact on physical therapy patients.

Grade Mode: Normal Grading Mode**PT 750 Foundations of Phys Ther****2 Credit hours**

Introduces students to medical terminology, historical foundations, and contemporary practice of physical therapy, traditional and emerging roles and responsibilities and professional behaviors of the physical therapist and issues of self-awareness and communications.

Grade Mode: Normal Grading Mode**PT 751 Legal & Ethical Issues in PT****2 Credit hours**

Development of cultural competence, analysis and practice of communications skills including documentation, professionalism, group dynamics and leadership to assume roles of practitioner, instructor, supervisor, and leader.

Grade Mode: Normal Grading Mode**PT 752 Professional Practice II****2 Credit hours**

Introduction to legislative process, liability, and legal and ethical issues, including considerations of task delegation and supervision of patients/clients, physical therapist assistants, staff, and students.

Grade Mode: Normal Grading Mode**PT 753 Professional Practice II****2 Credit hours**

Teaching and learning principles, practitioner and clinical instructor roles, clinical education program, faculty, and student responsibilities, clinical and program evaluative instruments, patient advocacy and preparation for community service opportunities.

Grade Mode: Normal Grading Mode

- PT 754 Health Care Delivery Systems** **1 Credit hour**
Micro and macro principles of healthcare delivery systems, sites, and organizations and pro bono services. Legalities of appropriate documentation for third party payers and federal insurance programs are addressed.
Grade Mode: Normal Grading Mode
- PT 755 Service Learning Practicum** **1 Credit hour**
Allows participation in service learning programs emphasizing advocacy for the health needs of the region, as well as coordination with community agencies.
Grade Mode: Pass/Fail Grading Mode
- PT 756 Administration in PT** **3 Credit hours**
Emphasis on administration of clinical practice in multiple settings. Information about licensure, attainment and retention of employment, professional organization membership, residency and fellowship programs, and specialization.
Grade Mode: Normal Grading Mode
- PT 758 PM&BC in PT Practice** **1 Credit hour**
Introduction to patient motivation and behavioral change in physical therapy practice. Emphasis on practical strategies to promote healthy patient/client change leading to improved human movement and overall health
Grade Mode: Normal Grading Mode
- PT 761 EBP I** **2 Credit hours**
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.
Grade Mode: Normal Grading Mode
- PT 762 EBP II** **1 Credit hour**
Principles, concepts, and basic skills required to conduct clinical research in physical therapy. Topics include research design, sampling, bias, sensitivity and specificity, questionnaire design, statistical computing, conceptual review of literature.
Grade Mode: Normal Grading Mode
- PT 763 EBP II** **2 Credit hours**
Students are guided through the process of a Systematic Literature Review development on a topic selected by the student and their Faculty Research Advisor and learn to apply principles of research to the clinical decision making process and to make recommendations for practice.
Grade Mode: Normal Grading Mode
- PT 764 EBP III** **1 Credit hour**
Continuation of Evidence Based Practice III where students receive continued guidance in the completion of the faculty led capstone project begun in EBP III. Presentation of capstone required before graduation.
Grade Mode: Normal Grading Mode
- PT 765 EBP IV** **1 Credit hour**
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.
Attributes: No Textbook Required
Grade Mode: Normal Grading Mode
- PT 766 EBP V** **1 Credit hour**
Continuation of Evidence Based Practice V where students receive continued guidance in the completion of the faculty led capstone project begun in EBP III. Presentation of capstone required before graduation.
Grade Mode: Normal Grading Mode
- PT 767 EBP VI** **1 Credit hour**
Continuation of Evidence Based Practice VI where students receive continued guidance in the completion of the faculty led capstone project begun in EBP III culminating with presentation of completed capstone.
Attributes: No Textbook Required
Grade Mode: Normal Grading Mode
- PT 771 Clin Application Seminar I** **1 Credit hour**
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.
Grade Mode: Pass/Fail Grading Mode
- PT 772 Clin Application Seminar II** **1 Credit hour**
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.
Attributes: No Textbook Required
Grade Mode: Pass/Fail Grading Mode
- PT 773 Clin Application Seminar III** **1 Credit hour**
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 musculoskeletal dysfunction of the extremities.
Grade Mode: Pass/Fail Grading Mode
- PT 774 Clin Application Seminar IV** **1 Credit hour**
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.
Grade Mode: Pass/Fail Grading Mode
- PT 775 Clin Application Seminar V** **1 Credit hour**
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 cardiopulmonary and complex neuromuscular dysfunction.
Grade Mode: Pass/Fail Grading Mode
- PT 776 Clin Application Seminar VI** **1 Credit hour**
Continued application of information and clinical skills learned in concurrent and prior DPT coursework in a small group discussion and pseudo-clinical setting. Interdisciplinary management of patients with complex concerns.
Grade Mode: Pass/Fail Grading Mode
- PT 777 Clin Application Seminar VII** **1 Credit hour**
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 health promotion and chronic disease prevention.
Grade Mode: Pass/Fail Grading Mode

PT 781 Musculoskeletal I**3 Credit hours**

The basic principles of orthopedic medicine including an overview of etiology, diagnosis, and surgical management will be covered. Physical Therapy examination, evaluation, diagnosis, and treatment of extremities and spine will be emphasized.

Grade Mode: Normal Grading Mode**PT 782 Musculoskeletal II****4 Credit hours**

Advanced concepts of musculoskeletal examination, evaluation, diagnosis and treatment of the extremities and spine will be covered. An evidence-informed/clinical reasoning-based manual therapy approach will be used including mobilization and manipulation.

Grade Mode: Normal Grading Mode**PT 783 Cardiopulmonary in PT****4 Credit hours**

An overview of cardiovascular and pulmonary systems pathologies, medical diagnosis and management and physical therapy diagnosis, examination, assessment and management of related physiological and movement dysfunctions.

Grade Mode: Normal Grading Mode**PT 784 Integumentary****3 Credit hours**

Review of structure, function, and applied pathophysiology of the integumentary system. Translate knowledge towards PT examination and management of common integumentary impairments with focus on prevention, restoration, and optimizing independence.

Grade Mode: Normal Grading Mode**PT 785 Health Promo and Nutrition****2 Credit hours**

Development and maintenance of healthy lifestyles for patients and clients. Focus on disease prevention, nutritional needs, and the benefits of exercise as well as managing individuals with injury or disease.

Grade Mode: Normal Grading Mode**PT 786 Rehab in Select Pops I****3 Credit hours**

Principles of evaluation and treatment in the areas of pediatrics and geriatrics. Emphasis placed on biopsychosocial aspects of developmental disabilities, coordination of care and complexities of multi-system and multi-organ disease.

Grade Mode: Normal Grading Mode**PT 787 Rehab in Select Pops II****2 Credit hours**

Principles of evaluation and management of patients with amputation and/or neuromuscular disorders to maximize functional independence. Focus on prosthetic and orthotic prescription, components, fabrication, fit, and use during functional activities.

Grade Mode: Normal Grading Mode**PT 788 Rehab in Select Pops III****1 Credit hour**

Principles of physical therapy management of select patient populations including bariatrics, women's health, oncology, and selected progressive and chronic diseases.

Grade Mode: Normal Grading Mode**PT 789 MSK III****1 Credit hour**

Advanced diagnosis and management approaches for complex orthopedic and sports PT populations will be covered. Differential diagnosis of upper and lower quarter pathology, along with specialized treatments unique to this population will be emphasized.

Grade Mode: Normal Grading Mode**PT 791 Clinical Internship I****4 Credit hours**

Supervised clinical education experience emphasizing continued development and reinforcement of clinical skills in clinical settings. Competence is expected in areas of the material presented to date in the curriculum.

Grade Mode: Pass/Fail Grading Mode**PT 792 Clinical Internship II****6 Credit hours**

Supervised clinical education experience emphasizing continued development and reinforcement of clinical skills in various clinical settings. Competence is expected in areas of the material presented to date in the curriculum.

Grade Mode: Pass/Fail Grading Mode**PT 793 Clinical Internship III****8 Credit hours**

Supervised clinical education experience emphasizing continued development and reinforcement of clinical skills in various clinical settings. Competence is expected in areas of the material presented to date in the curriculum.

Attributes: No Textbook Required**Grade Mode:** Pass/Fail Grading Mode**PT 798 Independent Study****1-4 Credit hours**

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 Chair of School of Physical Therapy)

Grade Mode: Normal Grading Mode**PT 799 Integration & Review****1 Credit hour**

Integration and review of clinical physical therapy principles and concepts in preparation for the National Physical Therapy Board Examination.

Grade Mode: Credit/No Credit Grade Only

Physics (PHY)

PHY 505 Optics Lab**2 Credit hours**

A course in optical experiments encompassing geometrical and physical optics. This course is to be taken with Physics 304.

Pre-req: PHY 304 (may be taken concurrently).**Concurrent PR:** PHY 304**Grade Mode:** Normal Grading Mode**PHY 515 Electronics Lab****2 Credit hours**

A course in laboratory measurements encompassing transistors, integrated circuits, and their associated circuits. This course is to be taken with Physics 314.

Grade Mode: Normal Grading Mode**PHY 520 Astrophysics****3 Credit hours**

A detailed study of core problems in Astrophysics such as orbital dynamics, radiation processes, stellar structure and evolution, galactic dynamics, and cosmology.

Grade Mode: Normal Grading Mode**PHY 521 Modern Physics Lab****2 Credit hours**

Laboratory exercises on modern physics topics encompassing both experiments of historic significance and current applications. To be taken with Physics 320, or equivalent.

Grade Mode: Normal Grading Mode

PHY 525 Solid State Physics	3 Credit hours	PHY 585 Independent Study	1-4 Credit hours
The purpose of this course is to provide a broad introduction to the structures and physical properties of solids, which are of extraordinary importance in the modern world.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PHY 586 Independent Study	1-4 Credit hours
PHY 535 Computational Physics	3 Credit hours	Attributes: No Textbook Required	
A course in using numerical methods and computer programming languages for solving complex physics problems and for the simulation of various physical processes. 2 lec-2 lab.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PHY 587 Independent Study	1-4 Credit hours
PHY 542 Quantum Mechanics	3 Credit hours	Grade Mode: Normal Grading Mode	
Mathematical formalism of quantum mechanics, particles in potential fields, perturbation theory and other approximation methods, scattering, applications to simple systems. 3 lec.		PHY 588 Independent Study	1-4 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PHY 543 Quantum Mechanics II	3 Credit hours	PHY 600 Electricity and Magnetism I	4 Credit hours
This is the second part of a two-semester introduction to quantum mechanics. Emphasis is on applications of quantum theory including approximation techniques and the study of more realistic quantum systems.		A study of electrostatics and associated boundary-value problems, electric multipoles and macroscopic media, dielectrics, magnetostatics, time-varying fields, Maxwell equations and conservation laws, plane electromagnetic waves and wave propagation.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PHY 544 Advanced Lab	2 Credit hours	PHY 608 Statistical Mechanics	4 Credit hours
Developments in producing and detecting correlated photon pairs has enabled implementation of undergraduate laboratories demonstrating fundamental quantum mechanical principles. This laboratory also incorporates fundamental solid state and materials science experiments.		The course introduces thermodynamics and statistical mechanics to graduate students of physics and other science and engineering disciplines as two complimentary approaches to study physical properties of systems in equilibrium.	
Pre-req: PHY 525 (may be taken concurrently) with a minimum grade of D and PHY 542 (may be taken concurrently) with a minimum grade of D.		Grade Mode: Normal Grading Mode	
Concurrent PR: PHY 525 and PHY 542		PHY 610 Special and Gen Relativity	3 Credit hours
Grade Mode: Normal Grading Mode		General relativity, the classical theory of one of the four fundamental forces, is not a standard course offer. 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.	
PHY 545 Math Methods of Physics	3 Credit hours	Grade Mode: Normal Grading Mode	
An introduction to the theory of orthogonal functions, curvilinear coordinate systems, vector and tensor fields and their applications in Physics. Problems are drawn from different areas of physics. 3 lec.		PHY 620 Modern Astrophysics I	3 Credit hours
Grade Mode: Normal Grading Mode		Modern Astrophysics is firmly grounded in the fundamental principles of physics, and will offer students the opportunity to use the physics they have learned in understanding the nature of the universe. This course provides a graduate-level introduction to astrophysics, focusing on stellar structure and evolution.	
PHY 546 MTH Methods of Physics II	3 Credit hours	Grade Mode: Normal Grading Mode	
A second semester of a full year course on methods of solving problems in physics: calculus of variations, ordinary partial differential equations and special functions with real physics problems.		PHY 625 Condensed Matter Physics	3 Credit hours
Pre-req: PHY 545.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PHY 547 Mechanics for Teachers	4 Credit hours	PHY 630 Classical Mechanics	4 Credit hours
An indepth study of mechanics for education majors specializing in Physics with emphasis on problem solving techniques, demonstrations, experiments and computer applications. (PR: PHY 203, MTH 122 and MTH 140)		Study of variational principles and Lagrange's equations, the two-body central force problem, the kinematics and dynamics of rigid-body motion, Hamilton equations of motion, canonical transformations, Hamilton-Jacobi theory, and small oscillations.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PHY 580 Special Topics	2-4 Credit hours	PHY 631 Seminar	1 Credit hour
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PHY 581 Special Topics	1-4 Credit hours	PHY 632 Seminar	1 Credit hour
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PHY 582 Special Topics	1-4 Credit hours	PHY 640 Fundamentals of Physics	4 Credit hours
Grade Mode: Normal Grading Mode		A course in fundamental concepts of physics. Subject content varies. Designed primarily to strengthen conceptual understanding of teachers.	
PHY 583 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode			

PHY 642 Adv Quantum Mechanics 4 Credit hours

This course covers advanced topics of quantum mechanics at the graduate level. Topics include fundamental issues, approximation methods and applications.

Pre-req: PHY 630 (may be taken concurrently) with a minimum grade of D.

Concurrent PR: PHY 630

Grade Mode: Normal Grading Mode

PHY 645 Methods of Math. Physics 4 Credit hours

This course will review and develop theories of real and complex analysis, group theory, tensors, special functions, differential and integral transforms, emphasizing their application to electrodynamics, quantum statistical mechanics, etc.

Grade Mode: Normal Grading Mode

PHY 661 Special Topics 1-3 Credit hours

Grade Mode: Normal Grading Mode

PHY 662 Special Topics 1-3 Credit hours

Grade Mode: Normal Grading Mode

PHY 682 Thesis Research 1-6 Credit hours

Grade Mode: Normal Grading Mode

PHY 685 Independent Study 1-4 Credit hours

Advanced Independent Study in Physics.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

PHY 686 Independent Study 1-4 Credit hours

Advanced Independent Study in Physics.

Grade Mode: Normal Grading Mode

Physiology (PHS)

PHS 626 Neurophysiology I 1 Credit hour

To study and understand the basic functional principles of the cells of the nervous system, and organization of cells into functional systems.

Pre-req: BMS 600.

Grade Mode: Normal Grading Mode

PHS 627 Neurophysiology II 1 Credit hour

To study and understand the major functional systems of the brain.

Pre-req: PHS 626.

Grade Mode: Normal Grading Mode

PHS 628 Mammalian Neurophysiology 2 Credit hours

This course is a basic introductory, survey course covering neurophysiology from sub-cellular level to behavioral level.

Grade Mode: Normal Grading Mode

PHS 629 Mammalian Physiology 6 Credit hours

A study of mammalian systems including pulmonary, renal, cardiovascular, gastrointestinal, endocrinological and nervous systems. Emphasis will be placed on homeostatic mechanisms and on experimental approaches to physiology.

Grade Mode: Normal Grading Mode

PHS 630 Experimental Physiology 1 Credit hour

A laboratory course in mammalian physiology which includes instruction in surgical preparation, bioinstrumentation technique and open-chest surgery in dogs.

Grade Mode: Normal Grading Mode

PHS 631 Physiology Practicum 2 Credit hours

Experience in laboratory instruction of medical and graduate students in the mammalian physiology laboratory.

Grade Mode: Normal Grading Mode

PHS 632 Physiology of Sleep 1 Credit hour

Detailed examination of changes in EEG, EMG, cardiorespiratory function and ocular motility during sleep.

Pre-req: PHS 629.

Grade Mode: Normal Grading Mode

PHS 634 Advanced Neurophysiology 1-2 Credit hours

Bioelectric potentials. A.C. and D.C. potentials, trans-cortical potentials, E.E.G., corneo-retinal potential, blood-CSF potential, etc.

Pre-req: PHS 629.

Grade Mode: Normal Grading Mode

PHS 638 Adv Cardiovascular Phys 1-2 Credit hours

Pre-req: PHS 629.

Grade Mode: Normal Grading Mode

PHS 639 Neurophys Res Tech 3 Credit hours

Class participants will be exposed to state-of-the-art neurophysiology research techniques while in the laboratories of neurophysiology faculty.

Grade Mode: Credit/No Credit Grade Only

PHS 661 Endocrinology 3 Credit hours

An in depth study of the endocrine system with special emphasis on the role of experimentation in the development of concepts in endocrine physiology (PR: BMS 600 or Equivalent; Permission)

Pre-req: BMS 600.

Grade Mode: Normal Grading Mode

PHS 666 Physiology of the Cell 3 Credit hours

An in-depth study of selected specific topics in cell physiology.

Pre-req: BMS 600.

Grade Mode: Normal Grading Mode

PHS 667 Experimental Appr to Phys 4 Credit hours

This course introduces students to the fundamental principles and research underlying the normal functioning of the cardiovascular, respiratory, renal, endocrine, reproductive, nervous, and gastrointestinal systems.

Pre-req: BMS 601 and BMS 602.

Grade Mode: Normal Grading Mode

PHS 675 Special Topics 1-4 Credit hours

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode

PHS 676 Special Topics 1-4 Credit hours

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode

PHS 677 Special Topics 1-4 Credit hours

Present course material on special areas of research or topics which are not routinely covered in existing courses.

Grade Mode: Normal Grading Mode

PHS 701 Physiology 8 Credit hours

Grade Mode: Normal Grading Mode

PHS 780 Elective Special Projects 1 Credit hour

Grade Mode: Normal Grading Mode

PHS 785 Independent Study**1-15 Credit hours**

Independent Study in Physiology is designed to allow the student the opportunity to work with a faculty member on a topic of special interest.

Grade Mode: Credit/No Credit Grade Only**PHS 820 Medical Physiology****1-18 Credit hours****Grade Mode:** Normal Grading Mode

Political Science (PSC)

PSC 502 Politics of the Undead**3 Credit hours**

A graduate survey of political thought, international relations theory, and political economy through the pop cultural lens of vampires, zombies, and other undead creatures.

Grade Mode: Normal Grading Mode**PSC 503 War and Popular Culture****3 Credit hours**

A graduate survey of evolving depictions of political violence in film, television, graphic novels, video games, and popular music.

Grade Mode: Normal Grading Mode**PSC 505 UN & Global Organizations****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 506 International Relations****3 Credit hours**

Study of major issues in world politics, with emphasis on theoretical approaches, problems of war and peace, and contemporary trends.

Grade Mode: Normal Grading Mode**PSC 508 Middle Eastern Politics****3 Credit hours**

Study of the Arab States and such nations as Israel, Iran and Turkey in the contemporary setting.

Grade Mode: Normal Grading Mode**PSC 509 Western Democratic Politics****3 Credit hours**

Study of such nations as Canada and those of Western Europe, particularly Great Britain and France.

Grade Mode: Normal Grading Mode**PSC 510 Post Soviet Politics****3 Credit hours**

Study of the Soviet Union and Eastern Europe.

Grade Mode: Normal Grading Mode**PSC 511 Latin American Politics****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 512 Internat Political Economy****3 Credit hours**

This course will examine the evolution and structure of the global economic system with emphasis on the development of the Liberal International Economic Order.

Grade Mode: Normal Grading Mode**PSC 515 International Law****3 Credit hours**

Study of theories, origins, sources, development, present state, and trends of international law as a factor in various aspects of international politics.

Grade Mode: Normal Grading Mode**PSC 516 Politics of Development****3 Credit hours**

A survey of major theories development and modernization and issues confronting developing nations around the world.

Grade Mode: Normal Grading Mode**PSC 517 Homeland Security & Civil Lib****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 518 American Political Thought II****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 519 Women and Pol Thought****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 520 Cur World/Regional Issues****3 Credit hours**

An intensive study of specific world or regional problems, such as the politics of world hunger. The role of multi-national corporations, imperialism, third world communist movements, etc.

Grade Mode: Normal Grading Mode**PSC 521 American Political Thought I****3 Credit hours**

Study of the development and influence of American Political Thought with an emphasis on the linkage of ideas to political and economic forces.

Grade Mode: Normal Grading Mode**PSC 523 American Foreign Policy****3 Credit hours**

The study of descriptive, analytical, and normative aspects of American foreign policy with emphasis on contemporary problems and issues.

Grade Mode: Normal Grading Mode**PSC 524 Comparative Foreign Pol****3 Credit hours**

Application of the comparative method to foreign policy decision-making and outputs. Comparisons within or between geographic regions.

Grade Mode: Normal Grading Mode**PSC 525 Classical Political Thought****3 Credit hours**

Selective 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.

Grade Mode: Normal Grading Mode**PSC 526 Modern Political Thought****3 Credit hours**

Selective 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.

Grade Mode: Normal Grading Mode**PSC 527 Shapers and Definers****3 Credit hours**

A study of political leaders who have shaped and defined the American constitutional tradition. A study of political leaders who have shaped and defined the American constitutional tradition.

Grade Mode: Normal Grading Mode

PSC 528 Islam and Politics**3 Credit hours**

A study of Islamic political ideas, practices and institutions and their impact on the rise and development of contemporary Islamic movements, organizations and states.

Grade Mode: Normal Grading Mode**PSC 529 Politics of Confl & Rev****3 Credit hours**

Study of major theories of conflict and revolution with emphasis on cross-national explanations and outcomes.

Grade Mode: Normal Grading Mode**PSC 530 Political Ideologies****3 Credit hours**

This course examines modern political ideologies including Liberalism, Conservatism, Anarchism, Socialism, Fascism, and Environmentalism with emphasis on the original texts.

Grade Mode: Normal Grading Mode**PSC 531 Politics of Global Terrorism****3 Credit hours**

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. Draws upon both classic and contemporary sources of political theory to address basic political issues inherent in public problems.

Grade Mode: Normal Grading Mode**PSC 532 Nonprofit Management****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 533 Public Adm & Policy Dev****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 536 The American Judiciary****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 540 Power In American Society****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 542 Politics and Welfare****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 544 Dictatorship & Democracy****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 545 Environmental Politics****3 Credit hours**

This 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.

Grade Mode: Normal Grading Mode**PSC 550 Administrative Law****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 552 Public Personnel Admin****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 553 Government Budgetary Admin****3 Credit hours**

Study of organization, administration, and accountability in the management of public funds, with emphasis on the political decision-making processes of budget formulation, representation, and execution.

Grade Mode: Normal Grading Mode**PSC 554 Politics of the Workplace****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 560 Civil Rights & Liberties****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSC 561 Urban Prob & Pub Policy****3 Credit hours**

Study of policy problems of metropolitan areas in terms of structures, alternatives, and outcomes.

Grade Mode: Normal Grading Mode**PSC 566 Appalachian Politics****3 Credit hours**

Explores Appalachia as both a geographical region and a political construct, focusing on how politics shapes regional identity and the region's relationship to the United States.

Grade Mode: Normal Grading Mode**PSC 578 Politics and Video Games****3 Credit hours**

An exploration of the power dynamics and politics at play in video games, the video game industry, and gaming culture.

Grade Mode: Normal Grading Mode**PSC 580 Special Topics****1-4 Credit hours**

To offer a course on some special topic which is not adequately treated in the regular course offerings.

Grade Mode: Normal Grading Mode**PSC 581 Special Topics****1-4 Credit hours**

To offer a course on some special topic which is not adequately treated in the regular course offerings.

Grade Mode: Normal Grading Mode

PSC 582 Special Topics	1-4 Credit hours	PSC 616 Public Adm Scope and Practice	3 Credit hours
To offer a course on some special topic which is not adequately treated in the regular course offerings.		Orientation to the field of Public Administration, ethics, professional standards and skills. Review of foundations, theories, and scope. Study of public management heritage and current trends and issues.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSC 583 Special Topics	1-4 Credit hours	PSC 618 Sem Public Administration	3 Credit hours
To offer a course on some special topic which is not adequately treated in the regular course offerings.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSC 620 Comparataive Public Admin	3 Credit hours
PSC 584 Constitutional Law	3 Credit hours	This course will serve as an introduction to the comparative study of public administration. Students will be introduced to several key areas of comparative administration research, including different methods used for analysis.	
Introduction to the principles of American constitutional law and analysis of constitutional issues, emphasizing leading Supreme Court cases.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSC 621 Urban Administration	3 Credit hours
PSC 585 Independent Study	1-4 Credit hours	Principles and methods of urban administration in the U.S.	
These numbers are reserved for tutorials, directed and independent research, problem reports, etc.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSC 622 Constitutions	3 Credit hours
PSC 586 Independent Study	1-4 Credit hours	A study of constitutions, their duration, distribution of power, contribution to a stable government and the rule of law. While the course is comparative, major emphasis is on the United States.	
These numbers are reserved for tutorials, directed and independent research, problem reports, etc.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSC 629 Seminar Political Thought	3 Credit hours
PSC 587 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
These numbers are reserved for tutorials, directed and independent research, problem reports, etc.		PSC 648 Sem State Govt & Politics	3 Credit hours
Grade Mode: Normal Grading Mode		West Virginia government and political problems will receive special attention although other states may be considered.	
PSC 588 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
These numbers are reserved for tutorials, directed and independent research, problem reports, etc.		PSC 650 Seminar	3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSC 600 Research Design	3 Credit hours	PSC 651 Seminar	3-6 Credit hours
Philosophy of Science as applied to empirical political inquiry; elements of good research design, measurement theory, writing and critiquing research reports. (PR: PSC 211 or Permission)		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSC 652 Sem Political Behavior	3 Credit hours
PSC 601 Reading-Political Science	2-3 Credit hours	Grade Mode: Normal Grading Mode	
Readings to meet the needs and interests of individual students.		PSC 660 Sem in Policy Analysis	3 Credit hours
Grade Mode: Normal Grading Mode		Development of theoretical and methodological skills in the analysis of public problems and the use of policy in problem solving.	
PSC 604 Data Analysis	3 Credit hours	Grade Mode: Normal Grading Mode	
A study of quantitative methods used in empirical research with an emphasis upon applied statistical analysis; writing and critiquing research reports.		PSC 675 Legislative Internship	6 Credit hours
Grade Mode: Normal Grading Mode		Intensive work experience in the West Virginia legislative processes coupled with a seminar involving directed reading and the preparation of a paper. This is a cooperative program with West Virginia University and the Office of Legislative Services with only selected students participating.	
PSC 606 Seminar Judicial Politics	3 Credit hours	Attributes: No Textbook Required	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSC 609 Sem Internat Relations Theory	3 Credit hours	PSC 676 Internship / Practicum	3-6 Credit hours
Grade Mode: Normal Grading Mode		Supervised internship / practicum where students apply public administration principles in an approved field setting.	
PSC 611 Am Legislative Process	3 Credit hours	Attributes: No Textbook Required	
Grade Mode: Normal Grading Mode		Grade Mode: Credit/No Credit Grade Only	
PSC 612 Sem Am Executive Process	3 Credit hours	PSC 680 Master's Thesis Workshop	3 Credit hours
Grade Mode: Normal Grading Mode		A writing workshop/seminar in which students will prepare their Master's Thesis Prospectus.	
PSC 614 Sem Comp Political System	3 Credit hours	Grade Mode: Credit/No Credit Grade Only	
Grade Mode: Normal Grading Mode		PSC 681 Thesis	1-6 Credit hours
		Grade Mode: Normal Grading Mode	

Psychiatry (PSI)

PSI 701 Ethics and Behavioral Medicine Grade Mode: Normal Grading Mode	3 Credit hours
PSI 710 Human Sexuality Grade Mode: Normal Grading Mode	1 Credit hour
PSI 713 Psych Clerkship-Kellogg/RPAP Comprehensive coverage at the introductory level of psychiatry (in the Kellogg curriculum). The reduction in credit from standard clerkship to accommodate Kellogg. Grade Mode: Normal Grading Mode	1-8 Credit hours
PSI 721 Psychopathology Grade Mode: Normal Grading Mode	2 Credit hours
PSI 730 Psychiatry Clerkship Grade Mode: Normal Grading Mode	8 Credit hours
PSI 742 Psychiatry Clerkship Grade Mode: Pass/Fail Grading Mode	1-18 Credit hours
PSI 780 Elective Special Projects Grade Mode: Normal Grading Mode	1 Credit hour
PSI 785 Independent Study Grade Mode: Credit/No Credit Grade Only	1-15 Credit hours
PSI 801 Child/Adolescent Psychia Grade Mode: Pass/Fail Grading Mode	1-18 Credit hours
PSI 802 Community Psychiatry I Grade Mode: Normal Grading Mode	1-18 Credit hours
PSI 803 Community Psych-Geriatric Grade Mode: Normal Grading Mode	1-18 Credit hours
PSI 804 Psychiatric Consultation Grade Mode: Pass/Fail Grading Mode	1-18 Credit hours
PSI 805 Substance Abuse Grade Mode: Normal Grading Mode	1-18 Credit hours
PSI 806 Community Psychiatry II Grade Mode: Normal Grading Mode	1-18 Credit hours
PSI 807 Emergency Psychiatry Grade Mode: Normal Grading Mode	1-18 Credit hours
PSI 811 Psychiatry-Family Therapy Grade Mode: Normal Grading Mode	1-18 Credit hours
PSI 812 Psychiatry-Rural Health Grade Mode: Normal Grading Mode	1-18 Credit hours
PSI 815 Mgt of Terminal Illness The primary objective of this elective will be for a student to obtain hands-on, intensive, and well-supervised experience in the management of end-of-life situations involving patients, family members and other health care providers. Grade Mode: Normal Grading Mode	1-18 Credit hours
PSI 820 Psychiatry-Human Behavior Grade Mode: Pass/Fail Grading Mode	1-18 Credit hours
PSI 825 Psychiatry Family Pract Grade Mode: Normal Grading Mode	1-18 Credit hours
PSI 827 Psychiatry Sub-I Grade Mode: Pass/Fail Grading Mode	4-18 Credit hours

PSI 850 Clinical Adm in Psychiatry Fourth year elective with the Clinical Director of a 90-bed psychiatric facility to acquaint student with clinical/ administrative issues, creative problem solving and strategic plans. Grade Mode: Normal Grading Mode	1-18 Credit hours
PSI 868 PSI Externship Out-of-State Externship Grade Mode: Pass/Fail Grading Mode	1-18 Credit hours
PSI 888 Rural Health Initia Ele Alter Acquaints students with issues of rural community health and wellness. Provides students with knowledge, attitudes and skills to participate in a changing health care environment. Grade Mode: Normal Grading Mode	1-18 Credit hours
PSI 899 Clerkship in Psychiatry Grade Mode: Normal Grading Mode	1-18 Credit hours

Psychology (PSY)

PSY 502 Adv Social Psychology Advanced study of selected topics in social psychology. Grade Mode: Normal Grading Mode	3 Credit hours
PSY 503 Applied Social Psychology Examination of the applications of social psychological methods, theories, principles and research findings to the understanding of social problems. Grade Mode: Normal Grading Mode	3 Credit hours
PSY 506 Psychometrics Mental test theory and applications. Grade Mode: Normal Grading Mode	3 Credit hours
PSY 508 Abnormal Psychology Study of the nature, causes and treatment of maladaptive human behavior. Grade Mode: Normal Grading Mode	3 Credit hours
PSY 515 Child Psychology Grade Mode: Normal Grading Mode	3 Credit hours
PSY 516 Psychology of Learning Critical study of the major theories of learning and related research. Grade Mode: Normal Grading Mode	3 Credit hours
PSY 517 Inter Behavioral Stat An intermediate level presentation of descriptive and inferential statistics as applied in behavioral research. 2 lec-2 lab. Grade Mode: Normal Grading Mode	3 Credit hours
PSY 518 Psychology of Personnel Psychological principles and methods applied to functions in personnel administration. Grade Mode: Normal Grading Mode	3 Credit hours
PSY 519 Theories of Personality Grade Mode: Normal Grading Mode	3 Credit hours
PSY 520 Intro to I-O Psychology 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. Grade Mode: Normal Grading Mode	3 Credit hours

PSY 526 Cross Cultural Psychology	3 Credit hours	PSY 605 Ethic Legal & Prof Issue Psych	3 Credit hours
Emic and etic cultural concepts are considered from an American (subcultural) and international perspective. Cultural influences on healing, health and service are covered.		Introduction to ethical standards and issues, laws which influence psychological practice and current challenges facing psychology as a profession.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSY 527 Computer Applic in PSY	3 Credit hours	PSY 606 Adv Social Psychology	3 Credit hours
An introduction to computer applications in psychology, emphasizing data collection, management, organization, analysis and reporting.		Advanced study of selected topics in social psychology.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSY 533 Curr Models of Psychotherapy	3 Credit hours	PSY 608 Differ Diagnosis & Treat Plan	3 Credit hours
Introduction to theoretical models and related therapeutic strategies which influence the practice of modern psycho- therapy.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSY 610 Assessment of Adults	3 Credit hours
PSY 540 Physiological Psychology	3 Credit hours	Principles and methods of psychological assessment for adults. Key issues in test construction and training in report writing. (PR: Admission to Clinical Psychology CR: PSY 620)	
The relationships between physiological functions and bio- chemical processes and behavior.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSY 611 Assessment of Children	3 Credit hours
PSY 543 Health Psychology	3 Credit hours	Principles and methods of psychological assessment for children. Key issues in test construction and training and report writing. (PR: PSY 610, CR: PSY 621)	
Introduction to the contribution of psychology to the promotion and maintenance of health and the prevention and treatment of illness.		Pre-req: PSY 621 (may be taken concurrently).	
Grade Mode: Normal Grading Mode		Concurrent PR: PSY 621	
PSY 560 History & Systems Psych	3 Credit hours	Grade Mode: Normal Grading Mode	
Overview of Psychology from historical perspective.		PSY 615 Adv Developmental Psychology	3 Credit hours
Grade Mode: Normal Grading Mode		Interpretation, evaluation, and selection of tests of ability, aptitude, attainment, interest and personality.	
PSY 565 Love/Intimacy and Attachment	3 Credit hours	Grade Mode: Normal Grading Mode	
Examination of how childhood attachments, bonds, and relationships affect and influence adult perspectives on love, expectations, intimacy, fidelity, and commitment.		PSY 616 Human Memory/Inform Proc	3 Credit hours
Grade Mode: Normal Grading Mode		Theory and research relating to human learning, memory and decision processes.	
PSY 575 Race Culture and Dev Processes	3 Credit hours	Grade Mode: Normal Grading Mode	
Examine the roles that race, ethnicity, and culture play in the physical, cognitive, intellectual, and social developmental processes of people of color.		PSY 617 Applied Dev Psych	3 Credit hours
Grade Mode: Normal Grading Mode		Application of Research in Developmental Psychology to issues of causes of clinical problems, issues of parenting, and factors to be taken into account in interventions.	
PSY 580 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSY 618 Psychopharmacology	1 Credit hour
PSY 581 Special Topics	1-4 Credit hours	Survey of psychotropic drug substances with emphasis on neuropharmacological bases of drug action, current research methods and therapeutic implications.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSY 582 Special Topics	1-4 Credit hours	PSY 619 Psychotherapy with Children	3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSY 583 Special Topics	1-4 Credit hours	PSY 620 Assessment Adults Practicum	1-3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Credit/No Credit Grade Only	
PSY 585 Independent Study	1-4 Credit hours	PSY 621 Assessment Children Practicum	1-3 Credit hours
Grade Mode: Normal Grading Mode		Grade Mode: Credit/No Credit Grade Only	
PSY 586 Independent Study	1-4 Credit hours	PSY 622 Research Sem in Psych	3 Credit hours
Attributes: No Textbook Required		This seminar covers advanced topics in research design and methodology. Students will explore various methods available to address specific research questions in the behavioral sciences.	
Grade Mode: Normal Grading Mode		Pre-req: PSY 517 with a minimum grade of D.	
PSY 587 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode			
PSY 588 Independent Study	1-4 Credit hours		
Grade Mode: Normal Grading Mode			
PSY 600 Teaching Psychology	3 Credit hours		
Grade Mode: Normal Grading Mode			

PSY 623 Experimental Design	3 Credit hours	PSY 656 Research in Psychology	1-3 Credit hours
An introduction to the design and interpretation of behavioral research. Emphasis is upon tests of significance and assumptions governing their application.		Grade Mode: Normal Grading Mode	
Pre-req: PSY 517 or (PSYC 521 or PSYC 521G).		PSY 657 Research in Psychology	1-3 Credit hours
Grade Mode: Normal Grading Mode		Attributes: No Textbook Required	
		Grade Mode: Normal Grading Mode	
PSY 624 Multivariate Analysis	3 Credit hours	PSY 670 Clinical Practicum	1-3 Credit hours
Multivariate analysis in behavioral research including multiple regression, analysis of variance, canonical correlation, and principal components and factor analysis.		Supervised application of principles of therapy and evaluation in a clinical setting. CR/NC grading.	
Pre-req: PSY 623 or PSY 652.		Pre-req: PSY 608 or PSYC 608G and PSY 633.	
Grade Mode: Normal Grading Mode		Grade Mode: Credit/No Credit Grade Only	
PSY 627 Social Psych Bases of Groups	3 Credit hours	PSY 671 Clinical Practicum	1-3 Credit hours
Grade Mode: Normal Grading Mode		Supervised application of principles of therapy and evaluation in a clinical setting. CR/NC grading.	
PSY 630 Adult Diagnosis & Therapy	3 Credit hours	Pre-req: PSY 608 and PSY 633.	
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: Admission to clinical psychology graduate program; instructor permission.)		Attributes: No Textbook Required	
Grade Mode: Normal Grading Mode		Grade Mode: Credit/No Credit Grade Only	
PSY 632 Behavior Therapy	3 Credit hours	PSY 672 Cognition and Emotion	3 Credit hours
Principles and techniques of the behavior therapies, and theories that underlie the behavioral approach.		Theory and research findings in learning/memory, attention, problem solving, decision making, concept formation and perception. Emphasis will be on the cognitive and emotional factors that influence learning/memory and thinking.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
PSY 633 Individual Psychotherapy	3 Credit hours	PSY 674 Biological Bases of Behavior	3 Credit hours
A survey of the basic skills and techniques used in treating various forms of psychopathology.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		PSY 675 Pract Teach PSY	1-3 Credit hours
PSY 634 Group Therapy	3 Credit hours	Supervised teaching experience in introductory psychology, including development of lectures, classroom demonstrations, quizzes, tests, extra credit activities and syllabi.	
Different types of group psychotherapy as appropriate for various problems and populations; intensive experience in at least two methods.		Pre-req: PSY 600.	
Pre-req: PSY 633.		Attributes: No Textbook Required	
Grade Mode: Normal Grading Mode		Grade Mode: Credit/No Credit Grade Only	
PSY 635 Child/Fam Diagn Therapy	3 Credit hours	PSY 676 Pract Teach PSY	1-3 Credit hours
The 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.		Supervised teaching experience in introductory psychology, including development of lectures, classroom demonstrations, quizzes, tests, extra credit activities and syllabi.	
Grade Mode: Normal Grading Mode		Pre-req: PSY 600.	
PSY 650 Performance Appraisal	3 Credit hours	Grade Mode: Credit/No Credit Grade Only	
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: Permission of the instructor.)		PSY 680 Clinical Internship	1-6 Credit hours
Pre-req: PSY 518 or MGT 620G.		Placement in an approved mental health setting for minimum of 400 hours. Supervised by on-site personnel in addition to psychology faculty.	
Grade Mode: Normal Grading Mode		Pre-req: PSY 671 or PSYC 725G.	
PSY 651 Adv Nonparametric Statistics	3 Credit hours	Attributes: No Textbook Required	
Pre-req: PSY 517.		Grade Mode: Credit/No Credit Grade Only	
Grade Mode: Normal Grading Mode		PSY 681 Thesis	1-6 Credit hours
PSY 652 Advanced Regression Techniques	3 Credit hours	Pre-req: PSY 517.	
Pre-req: PSY 517 or PSYC 521G.		Attributes: No Textbook Required	
Grade Mode: Normal Grading Mode		Grade Mode: Credit/No Credit Grade Only	
PSY 654 Single Subject Analysis	3 Credit hours	PSY 683 I-O Psych Internship	3 Credit hours
Pre-req: PSY 517.		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. (PR: Psy 518 or PSY 520 and Permission.)	
Grade Mode: Normal Grading Mode		Pre-req: PSY 518 and PSY 604 and PSY 624.	
		Grade Mode: Credit/No Credit Grade Only	

PSY 685 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours	PSY 708 Integrated Assessment II Covers integrated, battery-based assessment of children with emphasis on test selection and construction, validity, reliability, special populations, cultural and individual differences, and preparation of professional reports. Grade Mode: Normal Grading Mode	3 Credit hours
PSY 686 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours	PSY 709 Int Assessment Pract II Covers instrument administration for the psychological assessment of children; includes multiple diagnostic procedures. Grade Mode: Credit/No Credit Grade Only	1 Credit hour
PSY 687 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours	PSY 710 Adv Psych Assessment This course will offer coverage in advanced topics in psychological assessment. These topics will include geriatric assessment, assessment of addictions, neuro- psychological screening, forensic assessment, and cross- cultural assessment issues. (PR: Admission to Psy.D. program or permission of instructor.) Grade Mode: Normal Grading Mode	3 Credit hours
PSY 688 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours	PSY 712 Geropsychology An examination of normal and abnormal processes of aging, including common social, cognitive, health, and psycho- pathological problems, will be studied. Issues of community resources, assessment and therapy will be discussed. (PR: Admission to Psy.D. program or permission of instructor) Grade Mode: Normal Grading Mode	3 Credit hours
PSY 690 Seminar Reports on current problems and literature in psychology and related fields; professional ethics. Grade Mode: Normal Grading Mode	1-3 Credit hours	PSY 713 Adv Assess Practicum 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. Grade Mode: Credit/No Credit Grade Only	3 Credit hours
PSY 691 Seminar Reports on current problems and literature in psychology and related fields; professional ethics. Grade Mode: Normal Grading Mode	1-3 Credit hours	PSY 714 Adv Assess Practicum 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. Grade Mode: Credit/No Credit Grade Only	3 Credit hours
PSY 692 Seminar Reports on current problems and literature in psychology and related fields; professional ethics. Grade Mode: Normal Grading Mode	1-3 Credit hours	PSY 717 Adv Quantitative Analysis An advanced level presentation of inferential statistics as applied in behavioral research as a part of experimental design and literature review. Pre-req: PSY 517 or PSY 723. Grade Mode: Normal Grading Mode	3 Credit hours
PSY 693 Seminar Reports on current problems and literature in psychology and related fields; professional ethics. Grade Mode: Normal Grading Mode	1-3 Credit hours	PSY 723 Clin Res Meth in Psych 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. Pre: Admission to Psy.D. Program or permission. Attributes: No Textbook Required Grade Mode: Normal Grading Mode	3 Credit hours
PSY 694 Seminar Reports on current problems and literature in psychology and related fields; professional ethics. Grade Mode: Normal Grading Mode	1-3 Credit hours	PSY 726 Adv St Cross Cult Psych Comprehensive, broad scope course covering research topics, definitions and methodology; behavioural health needs of minorities; cultural perspectives on health/healing/wellness; international applications of psychological theory/practice. Grade Mode: Normal Grading Mode	3 Credit hours
PSY 695 Seminar Reports on current problems and literature in psychology and related fields; professional ethics. Grade Mode: Normal Grading Mode	1-3 Credit hours		
PSY 697 Sem: Adv Res in Psychology This seminar will provide advanced coverage of topics related to the design of research in psychology. Students in the seminar will gain experience planning an independent research project. Pre-req: PSY 517 or PSY 623. Grade Mode: Normal Grading Mode	3 Credit hours		
PSY 706 Integrated Assessment I Covers integrated, battery-based assessment of adults with emphasis on test selection and construction, validity, reliability, special populations, cultural and individual differences, and preparation of professional reports. Pre-req: PSY 707 (may be taken concurrently). Concurrent PR: PSY 707 Grade Mode: Normal Grading Mode	3 Credit hours		
PSY 707 Int Assessment Pract I Covers instrument administration for the psychological assessment of adults; includes multiple diagnostic procedures. Pre-req: PSY 706 (may be taken concurrently). Concurrent PR: PSY 706 Grade Mode: Credit/No Credit Grade Only	1 Credit hour		

PSY 731 Psychotherapy I**3 Credit hours**

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)

Grade Mode: Normal Grading Mode**PSY 732 Psychotherapy II****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**PSY 733 Psychotherapy III****3 Credit hours**

Ad 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)

Grade Mode: Normal Grading Mode**PSY 750 Clinical Health Psychology****3 Credit hours**

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.)

Attributes: No Textbook Required**Grade Mode:** Normal Grading Mode**PSY 752 Rural Community Psych I****3 Credit hours**

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.)

Grade Mode: Normal Grading Mode**PSY 753 Supervision in Clin Psy****3 Credit hours**

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 permission of instructor.)

Grade Mode: Normal Grading Mode**PSY 755 Rural Community Psych II****3 Credit hours**

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)

Grade Mode: Normal Grading Mode**PSY 756 Independent Study****1-4 Credit hours**

This is a doctoral level course which will permit students to explore topics in-depth that are not part of the regular curriculum. Faculty supervision is required.

Grade Mode: Normal Grading Mode**PSY 764 Adv Human Sexuality****3 Credit hours**

An examination of the knowledge and theory which explain important areas of sexual behavior. Topics emphasize sexual orientations, sexual dysfunctions, gender identity, paraphilias, compulsive and coercive behavior. PR: Admission to Psy.D. program or permission of instructor.)

Grade Mode: Normal Grading Mode**PSY 769 Pract in Clinical Psychology****1-3 Credit hours**

Supervised application of principles of therapy and evaluation in a clinical setting. (PR: PSY 671 or Consent)

Grade Mode: Credit/No Credit Grade Only**PSY 770 Adv Practicum in Clin Psy****3 Credit hours**

Students provide supervised clinical services at an approved field site. Pr: Admission to Psy.D. Completion of PSY 670-671 and Permission.

Grade Mode: Credit/No Credit Grade Only**PSY 771 Adv Practicum in Clin Psy****3 Credit hours**

Students provide supervised clinical services at an approved field site. Pre: Admission to Psy.D Completion of PSY 670-671 and Permission.

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**PSY 772 Rural Pract I****3 Credit hours**

Supervised two semester sequence providing field experience in rural mental health settings. (PR: PSY 755; 752; 770; 771)

Pre-req: PSY 770 and PSY 771.**Grade Mode:** Credit/No Credit Grade Only**PSY 773 Rural Practicum II****3 Credit hours**

Supervised two semester sequence providing field experience in rural mental health settings. (PR: PSY 755; 752; 770; 771)

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**PSY 780 Pre-Doctoral Internship****1-9 Credit hours**

Culminating training experience within the Psy. D. program. Students complete full-time, full year placement (or 2 year equivalent) at a APA/ APPIC accredited site or one approved by clinical faculty.

Grade Mode: Credit/No Credit Grade Only**PSY 781 Pre-doctoral Internship****1-9 Credit hours**

Culminating training experience within the Psy. D. program. Students complete full-time, full year placement (or 2 year equivalent) at an APA/ APPIC accredited site or one approved by clinical faculty.

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**PSY 782 Pre-doctoral Internship****1-9 Credit hours**

Culminating training experience within the Psy. D. program. Students complete full-time, full year placement (or 2 year equivalent) at an APA/ APPIC accredited site or one approved by clinical faculty.

Grade Mode: Credit/No Credit Grade Only**PSY 783 Pre-Doctoral Internship****1-9 Credit hours**

Culminating training experience within the Psy. D. program. Students complete full-time, full year placement (or 2 year equivalent) at an APA/ APPIC accredited site or one approved by clinical faculty.

Grade Mode: Credit/No Credit Grade Only**PSY 790 Sem: Clinical Psychology****1-3 Credit hours****Grade Mode:** Normal Grading Mode**PSY 791 Sem: Clinical Psychology****1-3 Credit hours****Grade Mode:** Normal Grading Mode**PSY 792 Sem: Clinical Psychology****1-3 Credit hours****Grade Mode:** Normal Grading Mode**PSY 793 Sem: Clinical Psychology****1-3 Credit hours**

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.

Grade Mode: Normal Grading Mode

PSY 794 Sem: Clinical PSY**1-3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSY 795 Sem: Clinical Psychology****1-3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSY 796 Sem: Clinical PSY****1-3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PSY 799 Doctoral Research****3-9 Credit hours**

Doctoral research project under the supervision of research committee and chair. (Prerequisites: Permission of Program)

Attributes: No Textbook Required**Grade Mode:** Credit/No Credit Grade Only

Public Health (PH)

PH 601 Intro Public Health**1 Credit hour**

An introduction to public health, including its foundation and history, principles and characteristics of the discipline, professional roles, and individual career development and planning.

Grade Mode: Normal Grading Mode**PH 602 Public Health Biology****2 Credit hours**

Reviews biological bases of public health issues, including principles of disease development, including genetics, oncogenesis, and immunology. May be waived for those holding appropriate degrees in biological or clinical sciences.

Grade Mode: Normal Grading Mode**PH 603 Intro to Rural Health****3 Credit hours**

Introduction to the particular issues of rural health, both domestically in the U.S. and internationally.

Grade Mode: Normal Grading Mode**PH 610 Intro to PH****2 Credit hours**

This course introduces students to the field of public health, how it works, and provides students with an opportunity to become familiar with essential concepts and resources in public health.

Grade Mode: Normal Grading Mode**PH 611 Epidemiology****3 Credit hours**

An introduction to basic concepts of including risk, study design, and analysis. Students apply these techniques to examine outbreaks, and evaluate preventives, diagnostics and treatments.

Grade Mode: Normal Grading Mode**PH 615 Health Sys Research****3 Credit hours**

An introduction to research in public health. Students examine prerequisites to successful study, as well as issues including funding, protocol design, data management, analysis, collaboration, and publication.

Co-req: PH 611, PH 621**Grade Mode:** Normal Grading Mode**PH 616 Clinical Trials****3 Credit hours**

An examination of methods and issues in conducting clinical research. Includes critical aspects of study design, protocol development, recruitment and consent, and assessment of outcomes.

Pre-req: PH 611 and PH 621.**Grade Mode:** Normal Grading Mode**PH 617 Meth Comp Study****3 Credit hours**

Examination of methods to determine the relative value of preventive, diagnostic and treatment alternatives for efficacy, cost, and practical application. Models include meta-analysis, comparative effectiveness trials, and data mining.

Pre-req: PH 611 and PH 621.**Grade Mode:** Normal Grading Mode**PH 620 PH Issues****2 Credit hours**

Provide practical situations and contemporary issues in public health where students apply knowledge and theoretical concepts from coursework, strengthen existing skills/analytic thinking, and apply public health core competencies.

Grade Mode: Normal Grading Mode**PH 621 Statistical Methods I****3 Credit hours**

Introduction to statistical principles and methods. Includes descriptive and inferential statistics. Students will gain experience in the use of SPSS software, and in the interpretation and communication of statistical tests.

Grade Mode: Normal Grading Mode**PH 622 Statistical Methods II****2 Credit hours**

Examination of procedures including multiple linear and logistic regression, survival analysis, advanced non-parametric tests, repeated measures. Students gain experience in the use of SAS software for data management and analysis.

Pre-req: PH 621.**Grade Mode:** Normal Grading Mode**PH 631 Environmental Health****2 Credit hours**

Introduction to environmental health principles, practices and policy. Students gain knowledge of the study, assessment, prevention and mitigation of exposures adversely affecting health.

Pre-req: PH 621.**Grade Mode:** Normal Grading Mode**PH 641 Social Behavioral Aspects PH****2 Credit hours**

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 changes in health status.

Grade Mode: Normal Grading Mode**PH 642 Health Communications****2 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 650 MPH Practicum****6 Credit hours**

To provide students with opportunity to apply concepts and knowledge from the MPH curriculum and demonstrate competency in the public health practice setting.

Grade Mode: Credit/No Credit Grade Only

PH 651 Public Health Services**2 Credit hours**

An introduction to public health management, planning, implementation and evaluation. Students gain an integrated understanding of public health resources and their effective utilization to improve health.

Grade Mode: Normal Grading Mode**PH 653 Rural Health Addiction****2 Credit hours**

Introduction to the public health issues of, and interventions for, alcohol, tobacco, and drug addiction in the Appalachian region, with a special emphasis on opioid addiction and drug overdose.

Grade Mode: Normal Grading Mode**PH 655 Intro Health Policy****2 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 656 Topics in Health Policy****3 Credit hours**

A study of current issues of health policy, including major issues of health reform. Students apply their skills to formulate, package, and present their own health policy proposal.

Grade Mode: Normal Grading Mode**PH 657 Public Health Prog Eval****3 Credit hours**

This course deals with the application of research methods to evaluate public health programs and health services.

Pre-req: PH 621 with a minimum grade of D.**Grade Mode:** Normal Grading Mode**PH 660 Environmental PH****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 661 Chronic Disease****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 662 Control of Inf Disease****3 Credit hours**

Examination of infectious diseases from a public health perspective, including strategies for prevention, treatment, control and eradication.

Pre-req: PH 611.**Grade Mode:** Normal Grading Mode**PH 663 Health Behavior****3 Credit hours**

This course introduces students to the models of health behavior as it applies to public health.

Grade Mode: Normal Grading Mode**PH 671 Community Health****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 672 Global Health****3 Credit hours**

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.

Pre-req: PH 611.**Grade Mode:** Normal Grading Mode**PH 678 Principles Epi in PH****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**PH 686 Health Information Technology****3 Credit hours**

An introduction to health information technology applications and issues, as well as the growing impact of advances in biotechnology on public health.

Grade Mode: Normal Grading Mode**PH 689 Community Outreach Health****3 Credit hours**

Applied and experiential course in designing and implementing a community health outreach project for the improvement of health in rural Appalachia.

Grade Mode: Normal Grading Mode**PH 691 Health Promo & Disease Prevent****3 Credit hours**

This graduate course provides students with a broad knowledge base of health promotion and disease prevention in public health.

Grade Mode: Normal Grading Mode**PH 692 Seminar****1 Credit hour**

Introduction to health science literature review and critique, as well as presentation of research and practicum reports.

Grade Mode: Normal Grading Mode**PH 693 Law and Ethics****3 Credit hours**

Introduction to the legal and ethical foundations of public health practice, including study of how individuals, practitioners, organizations and government address key issues.

Grade Mode: Normal Grading Mode**PH 694 Practicum****3 Credit hours**

Applied public health experience conducted under guidance of a faculty advisor and site preceptor, including a specific set of proposed project and learning objectives, and utilizing a community partner.

Pre-req: PH 611 and PH 621 and PH 641 and PH 686 and PH 693.**Attributes:** No Textbook Required**Grade Mode:** Credit/No Credit Grade Only**PH 695 Research****3 Credit hours**

Student research project, under guidance of the faculty advisor.

Student project may include work towards thesis.

Pre-req: PH 611 and PH 621.**Grade Mode:** Credit/No Credit Grade Only**PH 696 Capstone****3 Credit hours**

Course provides a structured and mentored process for students to produce written and oral components of a capstone project on a selected topic or question. (PR: Prior or current PH 694 or PH 695)

Pre-req: PH 694 (may be taken concurrently) or PH 695 (may be taken concurrently).

Concurrent PR: PH 694 or PH 695**Grade Mode:** Normal Grading Mode

Radiology (RAD)

RAD 780 Elective Special Projects Grade Mode: Normal Grading Mode	1-18 Credit hours
RAD 810 Radiology Grade Mode: Pass/Fail Grading Mode	1-18 Credit hours
RAD 811 Radiology Grade Mode: Normal Grading Mode	1-18 Credit hours
RAD 868 RAD Externship Out-of-State Externship Grade Mode: Pass/Fail Grading Mode	1-18 Credit hours
RAD 888 Rural Radiology Grade Mode: Normal Grading Mode	1-18 Credit hours
RAD 898 Radiation Oncology Grade Mode: Normal Grading Mode	1-18 Credit hours

Religious Studies (RST)

RST 519 Rel Thought in West World An analysis of the major schools of religious thought as they have developed in the West. Grade Mode: Normal Grading Mode	3 Credit hours
RST 550 Sociology of Religion An investigation into the nature of religion as a social phenomenon. Grade Mode: Normal Grading Mode	3 Credit hours
RST 580 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours
RST 581 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours
RST 582 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours
RST 583 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours
RST 585 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours
RST 586 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours
RST 587 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours
RST 588 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours
RST 599 Humanities Seminar Grade Mode: Normal Grading Mode	3 Credit hours

Safety Technology (SFT)

SFT 536 Safety Ed for Elem Teachers Grade Mode: Normal Grading Mode	1 Credit hour
SFT 540 Indust Fire Protection An introductory course that explores the relationship between engineering and fire prevention. Topics include: water supplies, sprinkler systems, behavior of fire and materials, fire protection, fire extinguishers, and other systems. Grade Mode: Normal Grading Mode	3 Credit hours

SFT 553 International Safety & Health 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. Grade Mode: Normal Grading Mode	3 Credit hours
SFT 554 Indust Hygiene I Environmental protection as related to industrial settings. Air/water quality, noise and chemical pollution and hazardous material control. Grade Mode: Normal Grading Mode	3 Credit hours
SFT 555 Environmental Prog/Sampling Grade Mode: Normal Grading Mode	3 Credit hours
SFT 558 Hospital Safety The course covers the various aspects of safety and health in professional health care services. Grade Mode: Normal Grading Mode	3 Credit hours
SFT 561 Workers Comp Introductory principles of workers' compensation and how it relates to the safety professional. Grade Mode: Normal Grading Mode	3 Credit hours
SFT 565 Incident Investigation Tech 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. Grade Mode: Normal Grading Mode	3 Credit hours
SFT 575 System Safety Engineering Grade Mode: Normal Grading Mode	3 Credit hours
SFT 580 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours
SFT 581 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours
SFT 582 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours
SFT 583 Special Topics Grade Mode: Normal Grading Mode	1-4 Credit hours
SFT 585 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours
SFT 586 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours
SFT 587 Independent Study Grade Mode: Normal Grading Mode	1-4 Credit hours
SFT 589 Process Safety Mgmt A study of the latest industrial safety information which will assist the student in designing a program to reduce or eliminate all incidents which downgrade the system. Grade Mode: Normal Grading Mode	3 Credit hours
SFT 591 Workshop Grade Mode: Normal Grading Mode	1-4 Credit hours
SFT 592 Workshop Grade Mode: Normal Grading Mode	1-4 Credit hours
SFT 593 Workshop Grade Mode: Normal Grading Mode	1-4 Credit hours
SFT 594 Workshop Grade Mode: Normal Grading Mode	1-4 Credit hours

SFT 597 Occup Sft & Health Prog Dev 3 Credit hours

Safety functions in industry. Principles of organization and application of safety programs. Prevention, correction, and control methods are outlined and evaluated.

Grade Mode: Normal Grading Mode

SFT 599 Dev & Mgt of Occup Safety Prog 3 Credit hours

A study of safety programs at the state and local levels including the administrative, instructional, and protective aspects of a comprehensive safety program in schools, occupations, home and public.

Grade Mode: Normal Grading Mode

SFT 601 Safety in Transportation 3 Credit hours

Concerned with safe, efficient movement of people and goods. Involves highway, air, water, pipeline, and rails.

Grade Mode: Normal Grading Mode

SFT 606 Field Esp Safety Specialist 3 Credit hours

Grade Mode: Normal Grading Mode

SFT 610 Intro to Prof Safety & Health 3 Credit hours

An analysis of the educational philosophies and the application of these philosophies to occupational safety. A study of the effect of occupational safety on modern living.

Grade Mode: Normal Grading Mode

SFT 630 Current Lit & Res in Safety 3 Credit hours

An analysis and study of selected works of national and international authors concerning significant works in Occupational Safety.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

SFT 645 Saf Engineering Equip Design 3 Credit hours

The design and engineering of facilities and equipment to meet the physical needs of the human as well as enhancing production.

Grade Mode: Normal Grading Mode

SFT 647 Industrial Hygiene II 3 Credit hours

Concerned with environmental health and safety hazards that arise out of or occur during work of employees.

Grade Mode: Normal Grading Mode

SFT 647L Quan Indus Hygiene Lab 3 Credit hours

A laboratory course designed to complement Industrial Hygiene.

Grade Mode: Normal Grading Mode

SFT 648 Industrial Ventilation 3 Credit hours

This course will cover the techniques of development, design maintenance, and troubleshooting of industrial ventilation systems. Also the types of ventilation systems used for different types of toxic materials.

Pre-req: SFT 647 or SED 647.

Grade Mode: Normal Grading Mode

SFT 649 Biophysical Hazards & Monitor 3 Credit hours

Grade Mode: Normal Grading Mode

SFT 650 Internship Safety Specialist 3-12 Credit hours

Attributes: No Textbook Required

Grade Mode: Credit/No Credit Grade Only

SFT 651 Toxicology & Epidemiology 3 Credit hours

Grade Mode: Normal Grading Mode

SFT 652 Industrial Noise & Vibration 3 Credit hours

Pre-req: (SFT 554 or SED 554) or (SFT 647 or SED 647).

Grade Mode: Normal Grading Mode

SFT 660 Appl Ergon and Hum Factors Eng 3 Credit hours

A study of how humans interact with the work environment, focusing on human capabilities and limitations, repetitive motion disorders, the human/machine interface and workspace design.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

SFT 661 Adv Occup Ergonomics 3 Credit hours

Pre-req: SFT 660 or SED 660.

Grade Mode: Normal Grading Mode

SFT 662 Methods in Work Analysis 3 Credit hours

Grade Mode: Normal Grading Mode

SFT 663 Work Environment Issues 3 Credit hours

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.

Grade Mode: Normal Grading Mode

SFT 669 Traffic Safety Management 3 Credit hours

Grade Mode: Normal Grading Mode

SFT 679 Problem Report 1-3 Credit hours

Grade Mode: Normal Grading Mode

SFT 681 Thesis 1-6 Credit hours

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

SFT 690 Seminar 1-4 Credit hours

Grade Mode: Normal Grading Mode

SFT 691 Seminar 1-4 Credit hours

Grade Mode: Normal Grading Mode

SFT 692 Seminar 1-4 Credit hours

Grade Mode: Normal Grading Mode

School Psychology (SPSY)

SPSY 523 Independent Research 1-3 Credit hours

Course designed to provide the student with the opportunity to work with a school psychology program professor on a research problem mutually agreed upon in terms of a specific plan of study. (PR: Permission of the instructor)

Grade Mode: Normal Grading Mode

SPSY 601 Prof Comp I Schools 3 Credit hours

This course is designed as an introduction to schools as organizations and systems.

Grade Mode: Normal Grading Mode

SPSY 603 Prof Comp II School Psych 3 Credit hours

This course provides an opportunity to teach the historical roots of contemporary psychology and school psychology and to help students contemplate the future of school psychology. (PR: SPSY 601)

Pre-req: SPSY 601.

Grade Mode: Normal Grading Mode

SPSY 606 Adol Substance Abuse 3 Credit hours

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.

Grade Mode: Normal Grading Mode

SPSY 616 Typ & Atyp Child Dev**3 Credit hours**

This is a multicultural, reading and writing intensive course that presents information on typical and atypical human development.

Grade Mode: Normal Grading Mode

SPSY 617 Ind Svc I Consultation**3 Credit hours**

This course is an introduction to the theory and practice of consultation and will prepare students to serve as consultants within public schools.

Grade Mode: Normal Grading Mode

SPSY 618 Dir Svc I Instruct & Bmod**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

SPSY 619 Dir Svc II-Ind Grp Csl**3 Credit hours**

This course is a direct interventions course focusing on individual and group therapy for children.

Grade Mode: Normal Grading Mode

SPSY 620 Ind Svc II Prevention**3 Credit hours**

This course is an introduction to the science and practice of primary prevention. Pre: SPSY 617.

Pre-req: SPSY 617.

Grade Mode: Normal Grading Mode

SPSY 621 Data-Based Decision I**3 Credit hours**

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 kit".

Grade Mode: Normal Grading Mode

SPSY 622 Data-Based Decision II**3 Credit hours**

This course is an intermediate problem-solving course designed to provide students with a variety of assessment measures to add to their professional "tool kit".

Grade Mode: Normal Grading Mode

SPSY 624 Data-Based Decision III**3 Credit hours**

Review of standard assessment instruments used in school psychology practice emphasizing those aspects of specialized testing consistent with diagnostic needs of the individual child or groups of children. (PR: SPSY 622)

Grade Mode: Normal Grading Mode

SPSY 674 Bio Bases School Psych**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

SPSY 675 Cognitive/Emo Bases Sch Psy**3 Credit hours**

SPSY 675 is a reading and writing intensive course that presents information of the psychological foundations of school psychology.

Grade Mode: Normal Grading Mode

SPSY 700 Special Topics**1-6 Credit hours**

Courses in specialized areas of school psychology on issues in the practice of school psychology. (PR: Permission of the instructor.)

Grade Mode: Normal Grading Mode

SPSY 701 Behavior Therapy**3 Credit hours**

Grade Mode: Normal Grading Mode

SPSY 710 Application of MTSS**3 Credit hours**

The focus of this course will be to integrate elements of consultation, assessment, and intervention into a comprehensive Multi-Tiered System of Support for behavior and academics from the perspective of a school psychologist.

Pre-req: SPSY 621 with a minimum grade of C and SPSY 622 with a minimum grade of C.

Grade Mode: Normal Grading Mode

SPSY 720 Counseling With Youth Ad**3 Credit hours**

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.

Pre-req: PSY 619.

Grade Mode: Normal Grading Mode

SPSY 738 Practicum I**3 Credit hours**

The initial practicum in school psychology is designed to provide a structured, experiential link between early coursework and practical experience. Pre: SPSY 601, SPSY 616, SPSY 621.

Pre-req: SPSY 621 and SPSY 616.

Grade Mode: Credit/No Credit Grade Only

SPSY 739 Practicum II**3 Credit hours**

The second practicum in school psychology is designed to provide a structured, experiential link between intermediate coursework and practical experience. Pre: SPSY 738.

Pre-req: SPSY 738.

Grade Mode: Credit/No Credit Grade Only

SPSY 740 Practicum III**1-6 Credit hours**

During this capstone experience, students will provide a full range of school psychological services in a multi-disciplinary training setting supervised by credentialed school psychologists.

Grade Mode: Credit/No Credit Grade Only

SPSY 745 Internship in Sch Psych**1-12 Credit hours**

Grade Mode: Credit/No Credit Grade Only

SPSY 750 Ed S Thesis Research**3 Credit hours**

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.

Grade Mode: Credit/No Credit Grade Only

SPSY 751 Program Evaluation**3 Credit hours**

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.

Pre-req: PSY 517 and SPSY 623.

Grade Mode: Credit/No Credit Grade Only

Social Studies (SOS)

SOS 561 Professional Development**1-4 Credit hours**

These courses are designed to meet the specific in-service needs of public school teachers. Credit in these courses can be used for certificate renewal and salary upgrading but cannot be used in degree programs.

Attributes: Not Degree Applicable

Grade Mode: Credit/No Credit Grade Only

Social Work (SWK)

SWK 501 Foundations of Gen Practice I 3 Credit hours

This is the first in a sequence of two courses designed to develop the practice knowledge and skills necessary for MSW students to begin professional social work practice. The purpose of this course is to provide an overview of generalist practice.

Grade Mode: Normal Grading Mode

SWK 511 Foundations of HBSE 3 Credit hours

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.

Grade Mode: Normal Grading Mode

SWK 521 Foundations of Social Policy 3 Credit hours

The initial focus of this course is to provide students with an historical background of social welfare and social work. Students will learn how to analyze social policies focused on the social welfare institution.

Grade Mode: Normal Grading Mode

SWK 531 Foundations of Gen Practice II 3 Credit hours

This is the second of two courses in MSW social work practice focused on preparing the student for entry into professional social work. Particular emphasis placed on the micro level of practice, working with individuals and families.

Grade Mode: Normal Grading Mode

SWK 541 Foundations of Research 3 Credit hours

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.

Grade Mode: Normal Grading Mode

SWK 551 Foundations of Field Practicum 1-9 Credit hours

This course is part of the field practicum experience where students are supervised in a social welfare agency for 400 clock hours. Building on foundation practice skills, students will apply knowledge, values, and skills to the generalist practice experience under the supervision of a licensed social worker.

Pre-req: SWK 501 and SWK 511.

Grade Mode: Credit/No Credit Grade Only

SWK 580 Special Topics 1-4 Credit hours

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

SWK 581 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

SWK 582 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

SWK 583 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

SWK 585 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

SWK 586 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

SWK 587 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

SWK 613 Adv Human Behavior Social Env 3 Credit hours

Social Work 613 is 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.

Grade Mode: Normal Grading Mode

SWK 615 Psychopathology 3 Credit hours

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.

Grade Mode: Normal Grading Mode

SWK 622 Int Health Policy & Services 3 Credit hours

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 students to synthesize and apply this learning to the practice of policy in the behavioral health service arena.

Grade Mode: Normal Grading Mode

SWK 623 Mil MH & Impact of Trauma 3 Credit hours

The course explores the effects of deployment and combat stress on the physical and mental health of active duty U.S. service members and their families.

Grade Mode: Normal Grading Mode

SWK 630 Int MH, Substance Use & Trauma 3 Credit hours

this course identifies and explains ways to which clients with a diagnosis of trauma and co-occurring mental health and substance use can be treated simultaneously.

Grade Mode: Normal Grading Mode

SWK 631 Int Health Models & Pract 3 Credit hours

This course prepares social workers to work collaboratively with cross disciplinary teams of providers. Social workers will be prepared to work in a variety of roles and functions, and possess the necessary skills to engage with highly diverse populations.

Grade Mode: Normal Grading Mode

SWK 633 Adv Clin SW Prac Ind Fam 3 Credit hours

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 healthcare settings.

Grade Mode: Normal Grading Mode

SWK 634 Adv SW Prac Gps Com & Org 3 Credit hours

This course provides the knowledge and skills needed to understand community, group, and organizational behaviors and the planned change process. Particular focus will be on rural and underserved populations.

Grade Mode: Normal Grading Mode

SWK 642 Adv Social Research I 3 Credit hours

This course introduces students to the philosophical and methodological issues of qualitative research. The course focuses on practicing various methods with the goal of producing a small qualitative study.

Grade Mode: Normal Grading Mode

SWK 643 Adv SW Research II 3 Credit hours

Program and intervention development and evaluation research in health settings; issues and skill development in program design and methods for evaluation.

Grade Mode: Normal Grading Mode

SWK 650 Und Military Culture**3 Credit hours**

The purpose of this course is to train students to understand the military culture within which military families function. The course looks at stressors such as deployment, diversity of military family structures and a range of diversity filters which impact the military family and military culture.

Grade Mode: Normal Grading Mode**SWK 653 Adv Field Practicum****1-9 Credit hours**

This course provides concentration year students with an agency-based field instruction and classroom seminar for advanced learning and practice opportunities. The practicum takes place during the second semester of the concentration year.

Grade Mode: Credit/No Credit Grade Only**SWK 655 Comorb Ment & Phy Disorders****3 Credit hours**

The course focuses on behavioral health issues as related to prevention, assessment, treatment, and evaluation, and the effective implementation with all individuals to include military and military affiliated individuals, including veterans and their families.

Co-req: SWK 634**Grade Mode:** Normal Grading Mode**SWK 670 Adv Theory & Pract Child****3 Credit hours**

The course builds a framework for social work interventions using normative developmental supports and mental health case planning. Students will develop advanced clinical social work practice knowledge and skills for working with children and adolescents with mental health risks.

Grade Mode: Normal Grading Mode**SWK 673 Family & Community Violence****3 Credit hours**

This course provides content covering various types of violence through the lifespan. Specifically, child abuse, school violence, juvenile violence, family violence, workplace violence, and elder abuse will be analyzed and discussed. The course will consider the risk factors, current policies, practices and interventions with vulnerable populations.

Grade Mode: Normal Grading Mode**SWK 681 Suicidology****3 Credit hours**

The course explores concepts of suicide as a public health issue. The course provides students with an understanding of suicide language and evidenced based clinical practice techniques.

Grade Mode: Normal Grading Mode**SWK 682 Human Trafficking****3 Credit hours**

Human Trafficking is grounded in fundamental concepts related to trafficking of human beings. Multiple forms of human exploitation as well as implications for social policy and interventions are discussed.

Grade Mode: Normal Grading Mode

Sociology (SOC)

SOC 501 Population and Human Ecology**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**SOC 508 The Family****3 Credit hours**

Theoretical analysis of the family as a primary social institution.

Grade Mode: Normal Grading Mode**SOC 513 Social Movements & Soc Change****3 Credit hours**

Analysis of large-scale social change, including intentional social movements and revolutions.

Grade Mode: Normal Grading Mode**SOC 520 Criminology****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**SOC 523 Social Class, Power & Conflict****3 Credit hours**

Theoretical analysis of economic and political inequality and the role of social conflict in the process of large-scale social organization.

Grade Mode: Normal Grading Mode**SOC 525 Race and Ethnicity****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**SOC 528 Medical Sociology****3 Credit hours**

Social organization of modern medicine and allied health delivery systems.

Grade Mode: Normal Grading Mode**SOC 532 Sociology of Appalachia****3 Credit hours**

Study of the economics, politics, and social relations of Appalachia, including contemporary debates.

Grade Mode: Normal Grading Mode**SOC 533 Sociology of Work****3 Credit hours**

Study of the organization and structure of the workplace as a social system; the meaning and organizations of work; managerial functions; management-labor relations; and human relations in industry.

Grade Mode: Normal Grading Mode**SOC 540 Intro to the Soc of Aging****3 Credit hours**

An introduction to the social processes and consequences of growing older for both the individual and society.

Grade Mode: Normal Grading Mode**SOC 542 Urban Sociology****3 Credit hours**

The sociology of urban and metropolitan communities.

Grade Mode: Normal Grading Mode**SOC 543 Evaluation Research****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**SOC 550 Sociology of Religion****3 Credit hours**

An investigation into the nature of religion as a social phenomenon.

Grade Mode: Normal Grading Mode**SOC 551 Science Knowledge & Tech****3 Credit hours**

Studies science knowledge and technology as a human endeavor.

Examines the processes and products, controversies, social impacts, interactions between science and other social institutions like religion and politics.

Pre-req: SOC 200.**Grade Mode:** Normal Grading Mode**SOC 552 Soc Of Death & Dying****3 Credit hours**

The study of death and dying as a societal and cultural phenomenon.

Explores how institutions within our society deal with death.

Grade Mode: Normal Grading Mode

SOC 555 Sociology of Sex and Gender	3 Credit hours	SOC 600 Classical Sociological Theory	3 Credit hours
Analysis of social differentiation and inequality by gender, with a focus on the contemporary U.S.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
SOC 560 The Holocaust and Genocide	3 Credit hours	SOC 601 Contemp Sociological Theory	3 Credit hours
An examination of the Holocaust and other genocides from an interdisciplinary social science perspective.		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.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
SOC 566 Culture and Environment	3 Credit hours	SOC 602 Contemp Social Change	3 Credit hours
This course will examine the symbolic and structural dimensions of struggles over defining, organizing, and controlling the natural environment from a biocultural perspective.		Theories of social change and their used in analyzing social change of today.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
SOC 568 National Identity	3 Credit hours	SOC 603 Behavioral Science I	3 Credit hours
Exploration of the cultural, political and economic processes that contribute to the creation and maintenance of the modern nation state as an imagined community.		Seminar in behavioral science theory.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
SOC 570 Soc Field Experience	3-6 Credit hours	SOC 604 Behavioral Science II	3 Credit hours
Supervised field work in a social organization or community working on practical problems.		Seminar in behavioral science theory.	
Grade Mode: Normal Grading Mode		Grade Mode: Normal Grading Mode	
SOC 571 Soc Field Experience	3-6 Credit hours	SOC 605 Qual Res Methods and Analysis	3 Credit hours
Supervised field work in a social organization or community working on practical problems.		Seminar in qualitative research methods and analysis. Topics covered include coding, using qualitative software, generating theory, participant observation, intensive interview, internet inquiry, focus groups, documents, and content analysis.	
Pre-req: SOC 506.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		SOC 606 Quantitative Res Meth Analysis	3 Credit hours
SOC 580 Special Topics	1-4 Credit hours	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.	
Study of topics not covered in regularly scheduled courses.		Grade Mode: Normal Grading Mode	
Grade Mode: Normal Grading Mode		SOC 609 Professional Development	3 Credit hours
SOC 581 Special Topics	1-4 Credit hours	Career preparation for teaching, research, and non-academic settings.	
Study of topics not covered in regularly scheduled courses.		Grade Mode: Credit/No Credit Grade Only	
Grade Mode: Normal Grading Mode		SOC 614 Applied Demography	3 Credit hours
SOC 582 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Study of topics not covered in regularly scheduled courses.		SOC 615 Applied Demography	3 Credit hours
Grade Mode: Normal Grading Mode		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.	
SOC 583 Special Topics	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Study of topics not covered in regularly scheduled courses.		SOC 620 Criminology	3 Credit hours
Grade Mode: Normal Grading Mode		Seminar in crime and delinquency.	
SOC 585 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Individual study of topics not offered in regularly scheduled courses.		SOC 640 Problems Aging Society	3 Credit hours
Grade Mode: Normal Grading Mode		Seminar in current and anticipated social consequences of aging for individuals and society and societal responses to this process.	
SOC 586 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Individual study of topics not offered in regularly scheduled courses.		SOC 645 Social Statistics II	3 Credit hours
Grade Mode: Normal Grading Mode		Intermediate level statistical analysis including analysis of variance and covariance.	
SOC 587 Independent Study	1-4 Credit hours	Grade Mode: Normal Grading Mode	
Individual study of topics not offered in regularly scheduled courses.			
Grade Mode: Normal Grading Mode			
SOC 588 Independent Study	1-4 Credit hours		
Individual study of topics not offered in regularly scheduled courses.			
Grade Mode: Normal Grading Mode			

SOC 655 Feminist Social Theory**3 Credit hours**

Diverse theoretical perspectives on the origins and nature of gender, inequality. Emphasis on contemporary debates and their political implications.

Grade Mode: Normal Grading Mode**SOC 668 Seminar****1-3 Credit hours**

Topics vary from semester to semester.

Grade Mode: Normal Grading Mode**SOC 679 Problem Report****1-3 Credit hours**

The preparation of a written report on a research problem or field study in sociology.

Grade Mode: Normal Grading Mode**SOC 681 Thesis****1-6 Credit hours**

Individual research in a selected field of sociology under the direction of a member of the department.

Grade Mode: Normal Grading Mode**SOC 685 Independent Study****1-4 Credit hours**

Individual study of topics not offered in regularly scheduled courses.

Grade Mode: Normal Grading Mode

Spanish (SPN)

SPN 507 For Lang Tchng Methods**3 Credit hours**

Analysis and practical application of methods of teaching foreign language, including professional development, language pedagogy, and language standards. To be taken concurrently with CI 470

Grade Mode: Normal Grading Mode**SPN 511 Pre Mod Latin American Lits****3 Credit hours**

A study of representative Latin American literary works from Pre-Colonial, Colonial and 19th Century. Course taught in Spanish.

Pre-req: SPN 315 and SPN 316 or SPN 323 and SPN 324.**Grade Mode:** Normal Grading Mode**SPN 512 Cont Latin American Lit****3 Credit hours**

A study of a selection of Latin American authors and works representative of the major literary movements in Latin America, from Modernism to the present. Course taught in Spanish.

Grade Mode: Normal Grading Mode**SPN 513 Lit Genres & Issues Latin Am****3 Credit hours**

Study of Poetry, Fiction, Drama, Essays, etc. in Latin America. At the discretion of the instructor literary genres could be crossed with approaches such as gender, race, religion, ethnicity etc. Course taught in Spanish.

Grade Mode: Normal Grading Mode**SPN 514 Mdv Ren & Gld Cnt Spanish Lit****3 Credit hours**

Study of 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.

Grade Mode: Normal Grading Mode**SPN 515 Spn Lit 18th & 19th Centuries****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**SPN 516 Cont Spn Lit****3 Credit hours**

Study of the representative Spanish authors and the major literary movements in peninsular literature from the Generation of 1898 to the present. Course taught in Spanish

Grade Mode: Normal Grading Mode**SPN 533 Int Adv Spn Gram****3 Credit hours**

This course will review and expand specific, advanced Spanish language structural points. It will include daily intensive practice in four linguistic skills. Course taught in Spanish.

Grade Mode: Normal Grading Mode**SPN 536 Cult & Soc in Cont Spain****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**SPN 561 Adv Syntax & Stylistics****3 Credit hours**

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.

Grade Mode: Normal Grading Mode**SPN 580 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**SPN 581 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**SPN 582 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**SPN 583 Special Topics****1-4 Credit hours****Grade Mode:** Normal Grading Mode**SPN 585 Independent Study****1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode**SPN 586 Independent Study****1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode**SPN 587 Independent Study****1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode**SPN 588 Independent Study****1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode**SPN 610 Read Span or Span Am Lit****1-3 Credit hours**

Readings designed for the graduate student who has the interest and the ability to study in depth a certain author, genre, or literary movement.

Grade Mode: Normal Grading Mode

SPN 611 Latin American Poetry**3 Credit hours**

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.

Grade Mode: Normal Grading Mode**SPN 612 Spanish Amer Romanticism****3 Credit hours**

Leading writers and trends in thought and versification of the romantic period.

Grade Mode: Normal Grading Mode**SPN 613 Texts 20th Cent Lat Amer****3 Credit hours**

Overview of the various ways in which literary and non-literary Latin American texts have interacted during the 20th century. Course taught in Spanish.

Pre-req: SPN 656.**Grade Mode:** Normal Grading Mode**SPN 614 Thms & Stls Spanish Poetry****3 Credit hours**

Survey of Castilian/Spanish poetry with emphasis on the cultural and intellectual contexts in which it is produced. Course taught in Spanish.

Pre-req: SPN 656.**Grade Mode:** Normal Grading Mode**SPN 615 Latin American Theater****3 Credit hours**

Course introduces students to Latin American Theatre within framework of literary and discursive subversion theatre and realism. Course taught in Spanish.

Grade Mode: Normal Grading Mode**SPN 618 Soc and Lit Spanish Thtr****3 Credit hours**

Application of dramatic theories to samples of Castilian/Spanish theatre. Emphasis will be placed on the cultural contexts of the plays read. Course taught in Spanish.

Pre-req: SPN 656.**Grade Mode:** Normal Grading Mode**SPN 620 Spanish Romanticism****3 Credit hours**

The trends and characteristics of the Romantic Movement in the writings of its leading exponents in lyric poetry, non- dramatic prose, and the theatre.

Grade Mode: Normal Grading Mode**SPN 625 Spanish Lit of 20Th Cent****3 Credit hours**

Emphasis on prose, poetry and the theatre since 1936, including writers in exile.

Grade Mode: Normal Grading Mode**SPN 646 Trd & In Frms Spanish Prs****3 Credit hours**

Development of Castilian/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.

Pre-req: SPN 656.**Grade Mode:** Normal Grading Mode**SPN 650 Special Topics****1-4 Credit hours**

Independent Research in selected areas of Spanish or Spanish American Literature that are not available in other courses in the catalog.

Grade Mode: Normal Grading Mode**SPN 651 Special Topics****1-4 Credit hours**

Independent Research in selected areas of Spanish or Spanish American Literature that are not available in other courses in the catalog.

Grade Mode: Normal Grading Mode**SPN 652 Special Topics****1-4 Credit hours**

Independent Research in selected areas of Spanish or Spanish American Literature that are not available in other courses in the catalog.

Grade Mode: Normal Grading Mode**SPN 653 Special Topics****1-4 Credit hours**

Independent Research in selected areas of Spanish or Spanish American Literature that are not available in other courses in the catalog.

Grade Mode: Normal Grading Mode**SPN 655 Int Spn Lings****3 Credit hours**

General survey of Spanish linguistics, both theoretical (phonetics, phonology, syntax and semantics) and applied (pragmatics, discourse analysis, sociolinguistics, and bilingualism). Course taught in Spanish.

Grade Mode: Normal Grading Mode**SPN 656 Crt Thry Spn/Latin Amer Lit****3 Credit hours**

Study of 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.

Grade Mode: Normal Grading Mode**SPN 679 Problem Report****1-3 Credit hours****Grade Mode:** Normal Grading Mode**SPN 681 Thesis****1-6 Credit hours****Grade Mode:** Normal Grading Mode

Sport Tourism Hospitality Mgt (STHM)

STHM 505 Sport Psychology**3 Credit hours**

An examination of theory, research, and application of psychological principles related to sport and exercise.

Grade Mode: Normal Grading Mode**STHM 511 Ethics in Sports****3 Credit hours**

A philosophical examination of both the fundamental ethical principles, as well as, the most common ethical dilemmas and controversies found in sports.

Grade Mode: Normal Grading Mode**STHM 516 Facility Design & Management****3 Credit hours**

This course covers quantity, location, and design standards for facilities. Includes safety, functionality, durability, and maintenance requirements in planning and design.

Grade Mode: Normal Grading Mode**STHM 525 Sport in Film****3 Credit hours**

The relationship between sports and feature motion pictures are analyzed in the historical, social and cultural contexts.

Grade Mode: Normal Grading Mode**STHM 530 Sport Law****3 Credit hours**

The study of the basic principles of the legal system as they operate in the environment of American sport.

Grade Mode: Normal Grading Mode**STHM 540 Women in Sport****3 Credit hours**

The history of women in sport, gender equity, opportunities for women in intercollegiate and professional sports (such as participant, coach, trainer, journalist, agent and promoter), and physiological perspectives.

Grade Mode: Normal Grading Mode

STHM 552 Sports Analytics**3 Credit hours**

By using various tools such as sport analytics, key performance indicators (KPI), balanced scorecard, and other techniques, this course focuses on exploring, identifying and solving problems using data.

Grade Mode: Normal Grading Mode

STHM 575 Sem Sport MGT MKT**3 Credit hours**

This course is designed to provide students with an overview of all aspects involved in the Sports Management and Marketing field through classroom lectures, guest speakers, and field trips.

Grade Mode: Normal Grading Mode

STHM 580 Special Topics**1-4 Credit hours**

Special topics are experimental courses that offered by the Sport, Tourism and Hospitality Management department.

Grade Mode: Normal Grading Mode

STHM 581 Special Topics**1-4 Credit hours**

Special topics are experimental courses that offered by the Sport, Tourism and Hospitality Management department.

Grade Mode: Normal Grading Mode

STHM 582 Special Topics**1-4 Credit hours**

Special topics are experimental courses that offered by the Sport, Tourism and Hospitality Management department.

Grade Mode: Normal Grading Mode

STHM 583 Special Topics**1-4 Credit hours**

Special topics are experimental courses that offered by the Sport, Tourism and Hospitality Management department.

Grade Mode: Normal Grading Mode

STHM 596 Olympic Games**3 Credit hours**

Exploring the important role of the Olympic Movement in politics since the modern Olympic Movement in 1896.

Grade Mode: Normal Grading Mode

STHM 615 Legal Concerns in STHM**3 Credit hours**

This course is designed to prepare students with the knowledge and the ability to apply the legal doctrines that will enhance their ability to problem-solve effectively and make prudent management and operational decisions.

Grade Mode: Normal Grading Mode

STHM 624 Current Issues in STHM**3 Credit hours**

An in-depth look at current issues affecting all areas of the Sport, Tourism and Hospitality Management field.

Grade Mode: Normal Grading Mode

STHM 643 Sport in Social Process**3 Credit hours**

An in depth analysis of the processes by which sport evolved as a significant component of modern American life.

Grade Mode: Normal Grading Mode

STHM 652 Organ Behav Sprt Leis Indus**3 Credit hours**

Examine the complexity of human behavior in organizational settings in sport and leisure industry, and the role of managers and leaders in affecting that behavior.

Grade Mode: Normal Grading Mode

STHM 660 Internship**3-6 Credit hours**

The placement of an individual into a Sport, Tourism and Hospitality agency to observe and participate in its operation.

Grade Mode: Normal Grading Mode

STHM 671 Research in Sports Studies**3 Credit hours**

This course provides student with a fundamental understanding of research principles, concepts, methods, techniques, and application related to sports studies.

Grade Mode: Normal Grading Mode

STHM 674 Sport Finance Economics**3 Credit hours**

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.

Grade Mode: Normal Grading Mode

STHM 675 MKT MGT of Sport Industry**3 Credit hours**

Advanced level of marketing concepts in sports industry.

Pre-req: ESS 670 with a minimum grade of D or STHM 671 with a minimum grade of D.

Grade Mode: Normal Grading Mode

STHM 681 Thesis**1-6 Credit hours**

Research opportunities in the STHM field are broad. Students can choose to work with one of the faculty members on a research direction which the faculty and student choose.

Grade Mode: Normal Grading Mode

STHM 685 Independent Study**1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode

STHM 686 Independent Study**1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode

STHM 687 Independent Study**1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode

STHM 688 Independent Study**1-4 Credit hours**

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.

Grade Mode: Normal Grading Mode

STHM 696 Seminar in STHM**3 Credit hours**

Course is designed to provide students with an overview to all aspects involved in the Sport, Tourism and Hospitality field through classroom lectures, guest speakers, and field trips.

Grade Mode: Normal Grading Mode

Statistics (STA)

STA 512 Regression Analysis 3 Credit hours

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.

Pre-req: STA 545 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 513 Experimental Designs 3 Credit hours

Principles of experimentation; Analysis of variance; Latin square and related designs; Factorial designs, Response Surface; Robustness; Nested and Split-Plot designs.

Pre-req: STA 545 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 518 Biostatistics 3 Credit hours

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.

Grade Mode: Normal Grading Mode

STA 520 Nonparametric Statistics 3 Credit hours

Coverage of a variety of nonparametric or distribution-free markets for practical statistical inference problems in hypothesis testing and estimation, including rank procedures and randomization procedures.

Pre-req: STA 545 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 525 Sampling Design & Estimation 3 Credit hours

Coverage of the theory and applications of a variety of sampling designs; sample size determination; ratio and regression estimates; comparisons among the designs.

Grade Mode: Normal Grading Mode

STA 535 Statistical Data Mining 3 Credit hours

Introduction to statistical learning techniques for analyzing high dimensional data. Topics include data mining strategy, explanatory analysis, predictive modeling techniques and model assessment.

Grade Mode: Normal Grading Mode

STA 545 Probability and Statistics I 3 Credit hours

Probability spaces, conditional probability, and applications. Random variables, distributions, expectations, and moments.

Grade Mode: Normal Grading Mode

STA 546 Probability and Statistics II 3 Credit hours

Probability spaces, conditional probability, and applications. Random variables, distributions, expectations, and moments.

Pre-req: STA 545 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 564 Statistical Computing 3 Credit hours

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: STA 545 or STA 546)

Pre-req: STA 545 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 570 Applied Survival Analysis 3 Credit hours

Survival and hazard functions, parametric and non-parametric methods, models and inferences for survival data, proportional hazard, and regression diagnosis.

Pre-req: STA 545 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 580 Special Topics 1-4 Credit hours

Courses on special topics in statistics not listed among current course offerings.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

STA 585 Independent Study 1-4 Credit hours

A faculty supervised, individualized course of study of a topic in statistics.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

STA 634 Stat Mtds for Researchers 3 Credit hours

Aspects of statistical modeling including model building, adequacy assessment, inference, and prediction. Applications to social biological, and medical sciences; engineering; and industry.

Grade Mode: Normal Grading Mode

STA 660 Stochastic Processes 3 Credit hours

Theory and applications of Markov chains. (PR: MTH 545)

Pre-req: STA 545 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 661 Adv Math Statistics 3 Credit hours

Topics in mathematical statistics including distribution theory for functions of random variables, convergence concepts, sufficient statistics, finding optimal estimates for parameters, optimal test of hypotheses. (PR: MTH 546)

Pre-req: STA 546 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 662 Appl Multivariate Stat Methods 3 Credit hours

Introduction to multivariate statistical analyses and methodologies of various types of datasets that are commonly encountered in medical, business, engineering, science, and any other data intensive disciplines.

Pre-req: STA 546 with a minimum grade of C.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

STA 663 Time Series Forecasting 3 Credit hours

Finding statistical models to represent various time-dependent phenomena and processes; coverage of a variety of forecasting techniques, with an emphasis on adaptive, regression, and Box-Jenkins procedures.

Pre-req: STA 545 with a minimum grade of C.

Grade Mode: Normal Grading Mode

STA 664 Bayesian Statistics 3 Credit hours

An introduction to Bayesian Statistics with focus on Bayesian Modeling, inference and Data Analysis. Applications will be studies with appropriate statistical software.

Pre-req: STA 545 with a minimum grade of D.

Grade Mode: Normal Grading Mode

STA 665 Advanced Stat Learning 3 Credit hours

An overview of concepts and techniques in advanced statistical learning. Topics include supervised/unsupervised learning, kernel smoothing methods, trees, random forests, association rules, neural networks and support vector machines.

Pre-req: STA 535 with a minimum grade of D.

Grade Mode: Normal Grading Mode

STA 670 Independent Study 1-4 Credit hours

A faculty supervised, individualized course of study of a topic in statistics.

Grade Mode: Normal Grading Mode

STA 681 Thesis 1-6 Credit hours

Investigate a theoretical or applied statistics problem under faculty mentorship.

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

STA 690 Special Topics 1-4 Credit hours

Courses on special topics in statistics not listed among the current course offerings.

Grade Mode: Normal Grading Mode

Surgery (SUR)

SUR 710 Surgery Clerkship 8 Credit hours

Grade Mode: Normal Grading Mode

SUR 712 Surgery RPAP 4 Credit hours

The purpose of this course is to provide the RPAP student with the requirements that must be met by the end of their RPAP experience for successful completion of the Surgical Clerkship Rotation.

Grade Mode: Normal Grading Mode

SUR 713 Surg Clerkship Kellogg 6 Credit hours

Comprehensive coverage at the introductory level of surgery (in the Kellogg curriculum). The reduction in credit from the standard clerkship to accommodate the Kellogg schedule.

Grade Mode: Normal Grading Mode

SUR 742 Surgery Clerkship 1-18 Credit hours

Grade Mode: Pass/Fail Grading Mode

SUR 744 Required Surgery 4 Credit hours

Grade Mode: Normal Grading Mode

SUR 780 Elective Special Projects 1 Credit hour

Grade Mode: Normal Grading Mode

SUR 785 Independent Study 1-15 Credit hours

Grade Mode: Credit/No Credit Grade Only

SUR 801 General Surgery 1-18 Credit hours

Grade Mode: Pass/Fail Grading Mode

SUR 802 Adv Emergency Medicine 1-18 Credit hours

Grade Mode: Normal Grading Mode

SUR 803 Neurosciences 1-18 Credit hours

Pre-req: SUR 710.

Grade Mode: Normal Grading Mode

SUR 804 Ophthalmology 1-18 Credit hours

Pre-req: SUR 710.

Grade Mode: Normal Grading Mode

SUR 805 Oral Surgery 1-18 Credit hours

Grade Mode: Normal Grading Mode

SUR 806 Anesthesiology 1-18 Credit hours

Grade Mode: Pass/Fail Grading Mode

SUR 807 Orthopedics 1-18 Credit hours

Pre-req: SUR 710.

Grade Mode: Normal Grading Mode

SUR 808 Otolaryngology 1-18 Credit hours

Grade Mode: Pass/Fail Grading Mode

SUR 809 Plastic Surgery 1-18 Credit hours

Grade Mode: Pass/Fail Grading Mode

SUR 810 Thoracic Cardiovasc Surg 1-18 Credit hours

Grade Mode: Normal Grading Mode

SUR 811 Urology 1-18 Credit hours

Grade Mode: Pass/Fail Grading Mode

SUR 812 Trauma Intensive Care 1-18 Credit hours

The purpose of the trauma rotation is to allow the MSIV student to enhance his/her knowledge base and develop the pharmacotherapeutic skills required for the provision of care to critically ill trauma patients and burn patients. The student will become familiar with pharmacotherapy for critically ill and injured patients, review key guidelines and landmark trials and become familiar in how to assume patient care responsibility.

Grade Mode: Pass/Fail Grading Mode

SUR 813 Surgical Anatomy 1-18 Credit hours

Pre-req: SUR 710.

Grade Mode: Pass/Fail Grading Mode

SUR 814 Surgical Research 1-18 Credit hours

Grade Mode: Pass/Fail Grading Mode

SUR 815 Pediatric Surgery 1-18 Credit hours

Grade Mode: Normal Grading Mode

SUR 825 Ambulatory Care 1-18 Credit hours

Grade Mode: Normal Grading Mode

SUR 827 Sub-I in General Surgery 1-18 Credit hours

The surgical sub-internship is a focused month designed to have students directly participate in the care of surgical patients; that is, initial evaluation, formulation of differential diagnoses, establishment of treatment plans and eventual daily care of the patient. Students will actively participate on rounds, daily care tasks, procedures and conferences.

Grade Mode: Pass/Fail Grading Mode

SUR 833 Surgical ICU 1-18 Credit hours

Course designed to allow student to gain experience with monitoring and evaluation critically ill surgical patients.

Grade Mode: Pass/Fail Grading Mode

SUR 868 Surgery Externship 1-18 Credit hours

Out-of-State Externship

Grade Mode: Pass/Fail Grading Mode

SUR 888 Rural Health Initia Elec Alt 1-18 Credit hours

Acquaints students with issues of rural community health and wellness. Provides students with knowledge, attitudes and skills to participate in a changing health care environment.

Grade Mode: Normal Grading Mode

SUR 899 Clerkship in Surgery 1-18 Credit hours

Pre-req: SUR 710.

Grade Mode: Normal Grading Mode

Technology and Engineering (TE)

TE 600 Orientation CITE Grad Studies 0 Credit hours

Orientation course covering skills such as technical communication, quantitative reasoning, research methods, ethics and professionalism, team work, and discipline-specific information.

Grade Mode: Credit/No Credit Grade Only

TE 650 Special Topics 4 Credit hours

Occasional offerings of current topics in technology and engineering, providing important supplementary material for participating students.

Grade Mode: Credit/No Credit Grade Only

TE 651 Special Topics 1-4 Credit hours

Occasional offerings of current topics in technology and engineering, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode

TE 652 Special Topics 1-4 Credit hours

Occasional offerings of current topics in technology and engineering, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode

TE 653 Special Topics 1-4 Credit hours

Occasional offerings of current topics in technology and engineering, providing important supplementary material for participating students.

Grade Mode: Normal Grading Mode

TE 685 Independent Study 1-4 Credit hours

An approved study of special interest, that is appropriate for the student's program of study, concerning technology and engineering. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode

TE 686 Independent Study 1-4 Credit hours

An approved study of special interest, that is appropriate for the student's program of study, concerning technology and engineering. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode

TE 687 Independent Study 1-4 Credit hours

An approved study of special interest, that is appropriate for the student's program of study, concerning technology and engineering. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode

TE 688 Independent Study 1-4 Credit hours

An approved study of special interest, that is appropriate for the student's program of study, concerning technology and engineering. Carried out under the supervision of a faculty member.

Grade Mode: Normal Grading Mode

TE 698 Comp Project Formulation 3 Credit hours

Comprehensive project proposal is developed, approved, and work begun, under supervision. Technical report writing, oral presentations, and communication skills. (PR: EM 660) S/U Grading.

Pre-req: EM 660.

Grade Mode: Credit/No Credit Grade Only

TE 699 Comprehensive Project 3 Credit hours

Completion of comprehensive project under the supervision of a faculty member. Includes final written submittal and public oral presentation. (PR: TE 698) S/U Grading.

Attributes: No Textbook Required

Grade Mode: Credit/No Credit Grade Only

Technology Management (TM)

TM 600 Program Introduction Seminar 1 Credit hour

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.

Pre-req: TM 610 (may be taken concurrently).

Concurrent PR: TM 610

Grade Mode: Normal Grading Mode

TM 610 Mgmt of Innovation & Tech 3 Credit hours

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 approaches to technology.

Grade Mode: Normal Grading Mode

TM 612 Econ & Financial Analysis 3 Credit hours

Tools and techniques for analyzing companies and their financial statements and for evaluating financial alternatives, including discounted cash flow, net present value and return on investment. (PR: TM 610)

Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

TM 615 Info Tech Strategies 3 Credit hours

This course provides sound principles for managing information technology computers and telecommunications systems as well as the processes and procedures for applying the principles. (PR: TM 610)

Grade Mode: Normal Grading Mode

TM 620 Technology Planning 3 Credit hours

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. (PR: Full Admission to TM program, or permission of TM Program Director)

Grade Mode: Normal Grading Mode

TM 630 Qual & Prod Methods 3 Credit hours

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: TM 610)

Grade Mode: Normal Grading Mode

TM 640 Intelligent Transpor Systems 3 Credit hours

Overview of transportation telemetrics and introduction to intelligent transportation systems. Communications and computing technologies in transportation. Overview of issues: traffic safety, public transportation.

Grade Mode: Normal Grading Mode

TM 650 Special Topics 1-4 Credit hours

Ocasional 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).

Grade Mode: Normal Grading Mode

TM 651 Special Topics 1-4 Credit hours

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).

Grade Mode: Normal Grading Mode

TM 652 Special Topics 1-4 Credit hours

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).

Grade Mode: Normal Grading Mode

TM 653 Special Topics 1-4 Credit hours

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).

Grade Mode: Normal Grading Mode

TM 659 Digital Access Pol & Strats 3 Credit hours

An introductory course for creating digital accessibility policies and plans for the workplace. Includes strategies to create accessible documents, evaluate web site accessibility, and investigate assistive technologies.

Grade Mode: Normal Grading Mode

TM 660 Computing & Info Sys Tech 3 Credit hours

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)

Pre-req: TM 615 (may be taken concurrently).

Concurrent PR: TM 615

Grade Mode: Normal Grading Mode

TM 664 Health Informatics 3 Credit hours

Introduction of various aspects of medical informatics, including medical literature search and retrieval, management and analysis of data, modeling and simulation, data communications, on-line databases, and clinical decision analysis.

Grade Mode: Normal Grading Mode

TM 667 Mod Mfg Concepts 3 Credit hours

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.

Grade Mode: Normal Grading Mode

TM 668 Computer Integrated Mfg 3 Credit hours

Grade Mode: Normal Grading Mode

TM 685 Independent Study 1-4 Credit hours

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).

Grade Mode: Normal Grading Mode

TM 686 Independent Study 1-4 Credit hours

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).

Grade Mode: Normal Grading Mode

TM 687 Independent Study 1-4 Credit hours

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).

Grade Mode: Normal Grading Mode

TM 688 Independent Study 1-4 Credit hours

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).

Grade Mode: Normal Grading Mode

TM 698 TM Internship 3 Credit hours

Supervised on-the-job experience. The student will work in a technology company or technical department within an organization. (PR: Permission)

Attributes: No Textbook Required

Grade Mode: Credit/No Credit Grade Only

TM 699 TM Capstone Project 3 Credit hours

An individualized technology management capstone project, which will be planned and carried out under the supervision of a faculty member and a work-site supervisor. (PR: Full Admission to TM program, and completion of 28 hrs. min. toward TM degree).

Grade Mode: Credit/No Credit Grade Only

Theatre (THE)

THE 536 Children's Theatre 3 Credit hours

Theory, direction, and staging of plays for children.

Grade Mode: Normal Grading Mode

THE 537 Directing I 3 Credit hours

Introduction to theories, principles, techniques, and history of directing.

Grade Mode: Normal Grading Mode

THE 538 Directing II 3 Credit hours

In-depth study of directorial approaches. Analysis of contemporary movements and leaders in the field. Students must stage productions as part of class requirement.

Pre-req: THE 537.

Grade Mode: Normal Grading Mode

THE 539 Directing for the Camera 3 Credit hours

Projects in directing for the camera. Video taping of selected directing exercises.

Pre-req: THE 537.

Grade Mode: Normal Grading Mode

THE 580 Special Topics 1-4 Credit hours

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Normal Grading Mode

THE 581 Special Topics 1-4 Credit hours

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Normal Grading Mode

THE 582 Special Topics 1-4 Credit hours

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Normal Grading Mode

THE 583 Special Topics**1-4 Credit hours**

Program of study not normally covered in other courses. Topics vary from semester to semester.

Grade Mode: Normal Grading Mode

THE 585 Independent Study**1-4 Credit hours**

Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill the needs of individual students.

Grade Mode: Normal Grading Mode

THE 586 Independent Study**1-4 Credit hours**

Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill the needs of individual students.

Grade Mode: Normal Grading Mode

THE 587 Independent Study**1-4 Credit hours**

Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill the needs of individual students.

Grade Mode: Normal Grading Mode

THE 588 Independent Study**1-4 Credit hours**

Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill the needs of individual students.

Grade Mode: Normal Grading Mode

THE 591 Theatre Workshop**1-4 Credit hours**

Practical, participatory courses for advanced students and professionals. Experience in new techniques, theories, and principles.

Grade Mode: Normal Grading Mode

THE 592 Theatre Workshop**1-4 Credit hours**

Practical, participatory courses for advanced students and professionals. Experience in new techniques, theories, and principles.

Grade Mode: Normal Grading Mode

THE 593 Theatre Workshop**1-4 Credit hours**

Practical, participatory courses for advanced students and professionals. Experience in new techniques, theories, and principles.

Grade Mode: Normal Grading Mode

THE 594 Theatre Workshop**1-4 Credit hours**

Practical, participatory courses for advanced students and professionals. Experience in new techniques, theories, and principles.

Grade Mode: Normal Grading Mode

Faculty

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.

University Calendar First Semester 2020-2021

August 14, Friday

End of summer school

August 17, Monday – August 21, Friday

Registration/schedule adjustment

August 15, Saturday

Residence halls open for freshmen

August 18, Tuesday – August 21, Friday

Week of Welcome for freshmen

August 20, Thursday

Residence halls open for upperclassmen

August 24, Monday, 8 a.m.

First day of classes

August 24, Monday – August 28, Friday, 8 a.m. – 5 p.m.

Late registration/schedule adjustment (add-drop)

August 28, Friday

Last day to add a class

August 31, Monday

Withdrawal ("W") period begins

September 5, Saturday – September 7, Monday

University computing services unavailable

September 7, Monday

Labor Day holiday-university closed

September 11, Friday

Application for December graduation due in academic Dean's office

September 25, Friday

Last day to withdraw from 1st 8 weeks courses

October 5, Monday, Noon

Freshmen/Sophomore midterm grades due

October 9, Friday

1st 8 weeks courses end

October 12, Monday

2nd 8 weeks courses begin

October 23, Friday

Last day to withdraw from a full semester individual course

October 26, Monday

Students should schedule appointments with advisors to prepare for advance registration.

(Required for students who have mandatory advising holds)

October 26, Monday

Recommended date to apply for May 2021 graduation

October 26, Monday – December 4, 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 withdraw from 2nd 8 weeks courses

November 13, Friday

Approved thesis/dissertation must be submitted to the ETD website for Graduate College review

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 27, Friday

Thanksgiving Break – classes dismissed

November 26, Thursday – November 27, Friday

Thanksgiving Holiday – University closed

November 29, Sunday, 9:00 a.m.

Residence halls open

November 30, Monday

Classes resume using only online/distance instruction

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 – exams will be held online

Some common finals

December 7, Monday

Exam day – exams will be held online

December 8, Tuesday

Exam day – exams will be held online

December 9, Wednesday

Study day

Exams resume at 3:00 p.m. for Wednesday evening classes

December 10, Thursday

Exam day – exams will be held online

December 11, Friday

Exam day – exams will be held online

December 12, Saturday, TBD

Winter Commencement, Big Sandy Superstore Arena

Official December graduation date

December 13, Sunday, Noon

Residence halls close

December 14, Monday, Noon

Final grades due

ETD must be approved by the Graduate College and all other requirements must be met for degree completion

December 23, 2020, Wednesday – January 1, 2021, Friday

Winter Break – University closed

Second Semester 2020-2021

January 4, Monday

University reopens

January 4, Monday – January 15, Friday

Registration/schedule adjustments

January 17, Sunday, 9 a.m.

Residence halls open

January 18, Monday

Martin Luther King, Jr. Holiday-University closed

January 19, Tuesday, 8 a.m.

First day of classes

January 19, Tuesday – January 22, Friday

Late registration/schedule adjustment (add-drop period)

January 22, Friday

Last day to add/drop classes

January 25, Monday

Withdrawal ("W") period begins

February 12, Friday

Applications for May graduation due in academic Dean's office

February 19, Friday

Last day to withdraw from a 1st 8 weeks courses

March 1, Monday, Noon

Freshman/sophomore midterm grades due

March 5, Friday

1st 8 weeks courses end

March 8, Monday

2nd 8 weeks courses begin

March 15, Monday

Students should schedule appointments with advisors to prepare for advance

registration for summer and fall. (Required for students with mandatory advising holds.)

March 15, Monday – March 19, Friday

Advance registration for summer sessions (open only to currently enrolled students)

March 19, Friday

Classes dismissed-Spring holiday

March 22, Monday

Last day to withdraw from a full semester individual course

March 22, Monday

Advance registration for summer sessions begin (open to admitted/readmitted students)

March 22, Monday

Recommended date to apply for July, August, and December 2021 graduation

March 22, Monday – April 23, Friday

Complete withdrawals only

April 2, Friday

Last day to withdraw from a 2nd 8 weeks courses

April 2, Friday

Approved thesis/dissertation must be submitted to the ETD website for Graduate College review

April 5, Monday – April 16, Friday

Advance registration for fall semester (open only to currently enrolled students)

April 19, Monday – April 23, Friday

Dead week

April 19, Monday

Advance registration for fall semester begins (open to admitted/readmitted students except first-time fall undergraduates)

April 23, Friday

Last class day

Last day to completely withdraw from spring semester

April 24, Saturday

Exam day for Saturday classes

Some common finals

April 26, Monday

Exam Day

April 27, Tuesday

Exam Day

April 28, Wednesday

Study Day

Exams resume at 3 p.m. for Wednesday evening classes

April 29, Thursday

Exam day

April 29, Thursday

Approved thesis/dissertation must be submitted to the EDT website

April 30, Friday

Exam Day

May 1, Saturday, TBD at Big Sandy Superstore Arena

Commencement

Official May graduation date

May 2, Sunday, Noon

Residence halls close

May 3, Monday, Noon

Final grades due

ETD must be approved by the Graduate College and all other requirements must be met for degree completion

May 10, Monday – August 13, Friday

Summer school sessions

May 29, Saturday – May 31, Monday

University computer services unavailable

May 31, Monday

Memorial Day holiday-university closed

July 5, Monday

Independence Day holiday-university closed

Summer Sessions 2021

Intercession

May 7, Friday, 8 a.m. – 5 p.m.

Regular registration

May 10, Monday

First day of classes

Late registration/schedule adjustment (add/drop) closes at 5:00 p.m.

May 11, Tuesday

Withdrawal ("W") period begins

May 21, Friday

Last day to withdraw from an individual course

May 24, Monday – June 3, Thursday

Complete withdrawals only

May 29, Saturday – May 31, Monday

University computer services unavailable

May 31, Monday

Memorial Day Holiday – University closed

June 3, Thursday

Last class day

Last day to completely withdraw from Intercession

June 4, Friday

Final exam day

June 7, Monday, Noon

Deadline for submitting final grades

Summer I

May 14, Friday, 8 a.m. – 5 p.m.

Regular registration

May 17, Monday

First day of classes

May 17, Monday – May 19, Wednesday

Late registration/schedule adjustment (add-drop)

May 20, Thursday

Withdrawal ("W") period begins

May 29, Saturday – May 31, Monday

University computing services unavailable

May 31, Monday

Memorial Day Holiday – University closed

July 2, Friday

Last day to withdraw from an individual course

July 5, Monday

Independence Day Holiday observed – University closed

July 6, Tuesday – August 5, Thursday

Complete Withdrawals Only

July 16, Friday

Application for August graduation due in academic Dean's office

Approved thesis/dissertation must be submitted to the ETD website for Graduate College review

August 5, Thursday

Last class day

Last day to completely withdraw from Summer I

August 6, Friday

Final exam day

August 9, Monday, Noon

Deadline for submitting final grades

Summer II**June 4, Friday, 8 a.m. – 5 p.m.**

Regular registration

June 6, Sunday, 9 a.m.

Residence halls open

June 7, Monday

First day of classes

Late registration/schedule adjustment (add/drop) closes at 5:00 p.m.

June 8, Tuesday

Withdrawal ("W") period begins

June 11, Friday

Application for July graduation due in academic Dean's office

Approved thesis/dissertation must be submitted to the ETD website for Graduate College review

June 25, Friday

Last day to withdraw from an individual course

June 28, Monday- July 8, Thursday

Complete withdrawals only

July 5, Monday

Independence Day Holiday observed – University closed

July 8, Thursday

Last class day

Last day to completely withdraw from Summer II

July 8, Thursday

Approved thesis/dissertation must be submitted to the EDT website

July 9, Friday

Final exam day

Official July graduation date

July 12, Monday, Noon

Deadline for submitting final grades

ETD must be approved by the Graduate College and all other requirements must be met for degree completion

Summer III**July 12, Monday, 8 a.m. – 5 p.m.**

Regular registration

July 13, Tuesday

First day of classes

Late registration/schedule adjustment (add/drop) closes at 5:00 p.m.

July 14, Wednesday

Withdrawal ("W") period begins

July 16, Friday

Application for August graduation due in academic Dean's office

Approved thesis/dissertation must be submitted to the ETD website for Graduate College review

July 30, Friday

Last day to withdraw from an individual course

August 2, Monday — August 12, Thursday

Complete withdrawals only

August 12, Thursday

Last class day

Last day to completely withdraw from Summer III

August 12, Thursday

Approved thesis/dissertation must be submitted to the EDT website

August 13, Friday

Final exam day

Official August graduation date

August 16, Monday, Noon

Deadline for submitting final grades

ETD must be approved by the Graduate College and all other requirements must be met for degree completion

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