2025-2026 Graduate Catalog

Spring 2026 Version

University of Central Missouri
Warrensburg, MO 64093

1-877-SAY-UCMO (1-877-729-8266)
University Operator 660-543-4111

admit@ucmo.edu

P.O. Box 800
Warrensburg, MO 64093

Welcome to the University of Central Missouri Graduate Catalog!

Spring 2026 Catalog Additions

The following items are new programs and courses available effective Spring 2026.

Programs:

- Corporate Training Graduate Certificate (50-5604) (12 Hours)

Courses:

- INDS 5000
- INDS 5100
- INDS 5200
- INDS 6000
- INDS 6800
- INST 5380

President Welcome and Board of Governors

Welcome to Graduate Study at UCM

We are grateful that you chose the University of Central Missouri for your graduate education. As a graduate candidate at UCM, you will be challenged academically by our highly qualified and credentialed faculty. They will immerse you into new and innovative concepts through a supportive environment with the goal of fostering your success. We demonstrate our commitment to you by providing exceptional programs that are accredited and nationally ranked, offering multiple modes of delivery, and partnering with you throughout the educational process. Your graduate education is designed to be accessible and convenient while also rigorous and engaging.

A graduate education from UCM will help transform your life, not only through the knowledge you will gain, skills you will attain, and aptitudes you will develop, but also through the personal connections you will make and unique opportunities you will be afforded. We encourage you to take advantage of every opportunity your graduate study provides and to work hard to achieve your advanced degree. Thank you for making UCM your choice for furthering your education goals; our dedicated faculty and staff look forward to working with you throughout this life-altering endeavor.

Sincerely,

Roger J. Best, Ph.D.
President, University of Central Missouri
@UCMPresident

Board of Governors

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General Information

The Graduate Catalog

The University of Central Missouri Graduate Catalog contains a wealth of information for students, staff, and faculty members. Students should examine it carefully.

This catalog is a reliable guide for entering the university, reviewing available programs of study, selecting courses, and meeting graduation requirements. To the extent possible, the university will accept the degree/certificate requirements in it for an eight-year period.

Since the policies and programs of the university are constantly changing, no catalog can be completely up-to-date, even when it is published. Therefore, students should review their programs periodically with their faculty advisor and graduate coordinator to allow for necessary changes.

Individual schools and degree programs may have policies and requirements that are more stringent than the general university policies.

Graduate students are subject to current administrative policies, procedures, and regulations of the university. The general policies and regulations listed in the 2025-2026 Graduate Catalog become effective fall 2025. Consult the *UCM Student Handbook* for other university policies.

The University

The University of Central Missouri is a comprehensive, public university dedicated to providing personalized higher education experiences for a diverse body of students. Through its commitment to service and excellence, UCM seeks to meet the educational needs of the region, with extended responsibility to meet state, national, and international needs through selected programs. The University of Central Missouri is located in Warrensburg, a west central Missouri community of 16,350, located 50 miles southeast of Kansas City at the junction of Highways 50 and 13. The campus is easily reached by automobile or AMTRAK.

Central Missouri has provided more than a century of service, having been founded in 1871 as the State Normal School for the Second Normal District of Missouri. Formal accreditation and continued growth led the campus to be recognized as Central Missouri State Teachers College in 1919, Central Missouri State College in 1946, Central Missouri State University in 1972 and the University of Central Missouri in 2006. UCM is an affirmative action EEO/ADA institution.

Including an airport and other special facilities, the university occupies more than 1,000 acres. The university offers over 150 graduate and undergraduate programs for over 10,000 students. UCM's facilities are exceptional - not only its modern classrooms, laboratories, technical developments, and residence halls, but also its airport, Pertle Springs Park, and recreational and sports areas.

With a university motto of "Education for Service," it is not surprising that the university's faculty members have earned a reputation for teaching excellence, on and off campus. They have also distinguished themselves as scholars, achieving recognition in academic and professional organizations, in addressing learned societies, in performing in music and the arts, and in writing many books and journal articles.

From its establishment in 1871, and until 1947, UCM offered only undergraduate studies. Changing needs prompted continual improvement and development of the curriculum. In 1945, the State General Assembly, responsive to the needs of the state and to requests from teachers, authorized a change in name as well as an extension of mission. This legislation provided the legal basis for the establishment of graduate studies. Graduate work leading to the Master of Science in Education degree was offered for the first time in 1947.

The guiding principles of graduate education at UCM have remained constant since inception. Graduate work demands independent, critical, and creative thinking, the ability to collect, organize, and develop data, and the ability to formulate, interpret, and defend conclusions.

Programs leading to the Master of Arts, Master of Science, Master of Business Administration, Master of Arts in Teaching, the Education Specialist, and Cooperative Doctoral degrees have been added since 1947, and are a direct response to the needs of the citizens of the state of Missouri. In 1996, a statewide mission in academic technology for the University of Central Missouri was approved to "acquire, disseminate and utilize technology to enhance the university's comprehensive educational mission and to enrich the lives of all Missourians."

Mission Statement

The University of Central Missouri (UCM) disseminates knowledge that transforms students into leaders who possess the aptitudes, skills and confidence to succeed.

Approved by the UCM Board of Governors, April 2019

The UCM Community Creed

Choosing to become a citizen of the University of Central Missouri implies an acceptance of and willingness to contribute to the common goals and purposes of the community. The UCM Community Creed outlines the principles which guide the creation and maintenance of the desired community at UCM. The creed also provides a framework for individual behaviors which help build our vision.

As a member of the UCM community, I will join in building . . .

a **learning** community by striving for academic and personal excellence and by promoting the value of education and lifelong learning;

an **open** community by creating and maintaining effective channels of communication and by accepting and respecting individuals whose values, ideas, beliefs, and life experiences may be different from my own;

a **caring** community by seeking opportunities to serve and by supporting and affirming the well-being of others;

a **just** community by behaving in ways which are ethical, honest, equitable, trustworthy, civil and respectful;

a **disciplined** community by seeking to understand and fulfill personal responsibilities, by upholding university guidelines and by working toward self and community betterment;

a **celebrative** community by observing and honoring existing traditions and by seeking and creating opportunities to enrich and define UCM;

a **purposeful** community by helping to shape and achieve the common goals of UCM.

Graduate Studies Information

Graduate Studies

Graduate Studies is a combined effort between two collaborating offices: Graduate Studies and International Student Services (ISS). Graduate Studies provides program-level academic and research support. Graduate Studies provides domestic services admissions support as well as graduate student services. The International Student Services Office provides international admissions support as well as international student services.

Mission: Working collaboratively across the university Graduate Studies provides high-quality graduate programs that are offered in multiple delivery modes to empower every student to meet their personal, educational, and professional development goals.

Delivery Strategy:

The resources and initiatives of Graduate Studies aim to ensure UCM's graduate programs promote diversity, embrace innovation in education and research, and respond to the changing needs of the workforce. To accomplish this, Graduate Studies provide support to academic programs for recruitment, admissions, international student services, retention, research, and assessment.

The personnel in the Graduate Studies office seek to provide quality services to support graduate education and research at UCM. In conjunction with other offices and committees this office coordinates the review of graduate curriculum and policies. Additional functions of this office include providing scholarly funding through research grants and travel provisions and promoting graduate student and program visibility. The Graduate Studies office handles all processes associated with Graduate Assistantships on campus including the orientation process for new GAs. This office also reviews the following graduate student petitions: enrollment overloads, exceptions to the eight-year curriculum rule, and the reinstatement of academically ineligible students. The Graduate Studies office also administers thesis review and submittal and offers thesis workshops. The office is in Ward Edwards 1900.

Graduate Studies	660-543-4729
Graduate Domestic Admissions	660-543-4729
Graduate Studies (fax)	660-543-8874

International Student Services

The personnel in the International Student Services Office provide international admissions support and international student services. Some of the student services that this office provides include: major changes, advisor assignments, enrollment assistance, processing of initial I-20s for international students, and international student orientation. This office also handles graduate student petitions for determining Missouri residency and dual enrollment in undergraduate and graduate coursework. The office is in Ward Edwards 1800.

International Admissions (undergraduate and graduate)	660-543-4092
Director, International Student Services	660-543-4621
Assistant Director, International Student Services	660-543-8584
International Student Services Fax	660-543-4778

Organization and Administration of Graduate Studies

Graduate Studies encompasses two distinct offices: the office of Graduate Studies and the International Students Services (ISS) office. Both units report to the Vice Provost for Academic Programs and Services. Also significant in the organization and administration of Graduate Studies are the Graduate Faculty Assembly, Graduate Council, Graduate Faculty Review Committee, University Research Council, graduate advisors and coordinators, the faculty as a body, the Director of International Student Services, and representatives from Graduate Studies.

Graduate Faculty Assembly - The Graduate Faculty Assembly (GFA) is the governing body of graduate programs for the university. The GFA is comprised of all members of the Graduate Faculty and the administrators assigned to Graduate Studies. Recognizing that input from the graduate faculty is crucial to the quality of graduate education, the GFA provides a forum for discussion of graduate education issues and elects members to the Graduate Council. Graduate faculty members of the GFA are recognized as associate or full members with differing rights and responsibilities. GFA meets twice a year, once in the fall semester and once in the spring semester.

Graduate Council - The Graduate Council (GC) serves as an administrative committee for the Provost-Chief Learning Officer and a recommending body to Graduate Studies and all graduate functions of the University. The Graduate Council functions as the main recommending body to the Provost and Vice President of Academic Affairs on all issues central to: the development and advancement of the University's vision with regard to graduate education and research, the development and review of University policies and procedures for graduate education as set forth in the Graduate Catalog, the review and recommendation of the graduate curriculum, and the monitoring of graduate program quality. The Graduate Council serves as the review and recommendation body for all academic petitions submitted to Graduate Studies. The Graduate Council serves to review initial and reappointment applications for Full Graduate Faculty Status and the first level of review for appeals from faculty whose applications were not approved by the school chair and/or dean of the academic unit. The Graduate Council serves as the first level of review for appeals from faculty whose applications for Associate Graduate Faculty Status are not approved by the Graduate Studies. Graduate Council members are elected by the full graduate faculty members of the Graduate Faculty Assembly.

University Research Council - The University Research Council formulates policies and procedures pertaining to faculty research and assists in promoting research at the University of Central Missouri. The University Research Council is composed of seven members. One representative each from the College of Arts, Humanities, and Social Sciences, College of Education, Harmon College of Business and Professional Studies, College of Health, Science and Technology, Graduate Studies representative (ex officio), and student body.

Graduate Faculty Advisors - Graduate faculty advisors are recommended and approved by the graduate program coordinator to teach graduate-level courses and advise graduate students. Graduate advisors must have full graduate faculty status. Graduate program advisors counsel students about enrollment, program planning, qualifying examinations, research studies and/or thesis, comprehensive examinations, and eligibility for graduation.

Graduate Coordinators - Graduate coordinators are responsible for implementing the policies and procedures of graduate study at the university within their respective units. They advise faculty and students and coordinate graduate programs relative to the policies and procedures set forth by Graduate Studies.

Graduate Student Association - The purposes of the organization are:

- To serve as an advocacy group for the academic, professional, and personal needs of graduate students.
- To serve as a liaison between the graduate population and the faculty and administration.
- To provide the opportunity to initiate programs, workshops, and discussions relevant to the graduate experience.
- To provide opportunities for social activities to create a sense of community.

The current members designate the GSA meeting times. Officers are elected from the membership every Fall.

Accreditations

As set forth in Missouri Revised Statues Chapter 174 at 174.160, the University of Central Missouri has been assigned the authority to confer degrees.

The University of Central Missouri is accredited by the Higher Learning Commission (HLC). Contact The Higher Learning Commission, 230 South La Salle Street, Suite 7-500, Chicago, IL 60604, telephone 800-621-7440, https://www.hlcommission.org/ .

In addition, UCM has earned the following specialized accreditations for these undergraduate-level programs:

- Art baccalaureates, National Association of Schools of Art and Design (NASAD)
- Automotive Technology Management, National Automotive Technicians Education Foundation (NATEF)
- Automotive Technology Management, Construction Management, Design and Drafting Technology, Electronics Technology, and Graphic Technologies baccalaureates, Association of Technology, Management, and Applied Engineering (ATMAE)
- Aviation Management and Professional Pilot baccalaureates, Aviation Accreditation Board International (AABI)
- Baccalaureate Social Work program, Council on Social Work Education (CSWE)
- Business baccalaureates, The Association to Advance Collegiate Schools of Business (AACSB) - International
- Career and Technology Teacher Education (Family Consumer Sciences area) baccalaureate, American Association of Family and Consumer Sciences (AAFCS)
- Commission on English Language Program Accreditation (CEA)
- Computer Information Systems baccalaureate, accredited by the Computing Accreditation Commission of ABET, http://www.abet.org
- Computer Science (Computer Science option) baccalaureate, accredited by the Computing Accreditation Commission of ABET, http://www.abet.org
- Cybersecurity baccalaureate, accredited by the Computing Accreditation Commission of ABET, http://www.abet.org
- Dietetics baccalaureate, Accreditation Council for Education in Nutrition and Dietetics (ACEND) the accrediting agency for the Academy of Nutrition and Dietetics
- Engineering Technology baccalaureate, accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org
- Fashion: Textiles and Clothing in Business, American Association of Family and Consumer Sciences (AAFCS)
- Interior Design baccalaureate, Council for Interior Design Accreditation (CIDA)
- Mathematics education baccalaureate, National Council of Teachers of Mathematics (NCTM)
- Music baccalaureates, National Association of Schools of Music (NASM)
- Nursing baccalaureate programs, Commission on Collegiate Nursing Education (CCNE)
- Occupational Safety baccalaureate, accredited by the Applied and Natural Science Accreditation Commission of ABET, http://www.abet.org
- Occupational Safety and Health baccalaureate, accredited by the Applied Science Accreditation Commission of ABET, http://www.abet.org
- Public Relations baccalaureate, Certification in Education for Public Relations (CEPR)
- Social Studies baccalaureate in education, National Council for the Social Studies (NCSS)
- Teacher Education baccalaureate programs, Council for the Accreditation of Educator Preparation (CAEP)
- Theatre baccalaureate programs, National Association of Schools of Theatre (NAST)

UCM has earned the following specialized accreditations for these graduate-level programs:

- Athletic Training graduate program, Commission on Accreditation of Athletic Training Education Programs (CAATE)
- Business graduate programs, The Association to Advance Collegiate Schools of Business (AACSB) - International
- Commission on English Language Program Accreditation (CEA)
- Clinical Mental Health / School Counseling Graduate Programs, Council for Accreditation of Counseling and Related Educational Programs (CACREP)
- Educational Leadership: Principal and Superintendent graduate programs, Educational Leadership Constituent Council (ELCC)
- Educational Technology graduate program, International Society for Technology in Education (ISTE)
- Industrial Hygiene graduate program, accredited by the Applied Science Accreditation Commission of ABET, http://www.abet.org
- Industrial Management graduate program, Association of Technology, Management, and Applied Engineering (ATMAE)
- Library and Information Services graduate programs, American Association of School Libraries (AASL)
- Music graduate programs, National Association of Schools of Music (NASM)
- Nursing graduate programs, Commission on Collegiate Nursing Education (CCNE)
- Nutrition (Clinical Nutrition option), accredited by Accreditation Council for Education in Nutrition and Dietetics (ACEND) the accrediting agency for the Academy of Nutrition and Dietetics
- Occupational Safety Management graduate program, accredited by the Applied Science Accreditation Commission of ABET, http://www.abet.org
- Speech-Language Pathology master's program, Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA)
- Teacher Education graduate programs, Council for the Accreditation of Educator Preparation (CAEP)
- Technology graduate program, Association of Technology, Management, and Applied Engineering (ATMAE)

UCM has earned the following accreditation for Dual Credit/Enrollment Program:

- National Alliance of Concurrent Enrollment Partnerships (NACEP)

The university has institutional membership in:

- American Association of State Colleges and Universities
- Association of American Colleges and Universities
- Association of Governing Boards of Universities and Colleges
- Council for Opportunity in Education
- Council of Graduate Schools
- Council on Public Higher Education for Missouri
- Council on Social Work Education
- Council on Undergraduate Research
- Great Lakes Valley Conference
- Greater Clinton Chamber of Commerce
- Greater Kansas City Chamber of Commerce
- Higher Learning Commission
- Institute of International Education
- International Association for Management Education
- International Relations Council
- International Technology and Engineering Educators Association

- Johnson County Economic Development Corporation
- Kansas City Area Development Council
- Mid-America Intercollegiate Athletics Association
- Midwestern Association of Graduate Schools
- Missouri Academy of Science
- Missouri Chamber of Commerce and Industry
- National Collegiate Athletic Association
- National Collegiate Honors Council
- National Council for Accreditation of Teacher Education
- The Renaissance Group
- Warrensburg Chamber of Commerce

In addition, UCM has earned the following specialized distinctions:

- Chemistry baccalaureate, American Chemical Society (ACS) approved

Nondiscrimination/Equal Opportunity Statement

Nondiscrimination and Equal Opportunity Statement

Board of Governors Policy 1.2.150

Approved by the Board of Governors on September 19, 2014

The University of Central Missouri actively follows a policy of nondiscrimination in regard to age, race, color, religion, sex, sexual orientation, gender identity or expression, marital status, pregnancy or parental status, national origin, veteran status, genetic information, disability, and all other legally protected classes. This policy applies to educational programs and activities including athletics, instruction, grading, the awarding of student financial aid, recruitment, admission, employment, housing, placement and retention of students, faculty and staff. The university complies with applicable federal and state laws and regulations related to discrimination.

Persons having inquiries concerning the university's compliance with this policy or any laws and regulations prohibiting discrimination are directed to contact the following:

Office of Civil Rights, Kansas City Office:

Office for Civil Rights U.S. Department of Education
One Petticoat Lane
1010 Walnut Street, 3rd floor, Suite 320
Kansas City, MO 64106
Telephone: 816-268-0550
FAX: 816-268-0599; TDD: 800-877-8339
Email: OCR.KansasCity@ed.gov

For ADA/504 related questions please contact:

Cathy Seeley
The Director of Accessibility Services (ADA/504 Coordinator)
Accessibility Services, Union 222
University of Central Missouri, Warrensburg, Missouri 64093
660-543-4421

Toll free numbers for Relay Missouri are 711 or 800-735-2966 for TTY, and 866-735-2460 for voice callers. For further information on notice of non-discrimination, visit ED.gov at https://ocrcas.ed.gov/contact-ocr for the address and phone number of the office that serves your area, or call 1-800-421-3481.

No individual will be subject to any form of retaliation, discipline, or other adverse action for reporting conduct in violation of the university's nondiscrimination policy, assisting/cooperating in making a complaint, or assisting with the investigation of a complaint. Any individual who believes they have experienced or witnessed retaliation should immediately notify the appropriate member(s) of the administration as identified in this Statement.

Link to procedures:

- Discrimination, Harassment, Sexual Misconduct & Retaliation Grievance Process

Approved by the Board of Governors on February 21, 2001
Formatting updated August 1, 2007
Revised and approved by the Board of Governors on September 19, 2014
Reviewed July 28, 2017, no suggested revisions

Institutional and Financial Consumer Information

Federal law requires institutions of higher education, including the University of Central Missouri, to inform prospective students, faculty and staff of institutional and financial information. This information is available at https://www.ucmo.edu/consumer-information/index.php.

Pursuant to Missouri HB 1606 (2018), information regarding program lengths, costs, and students' median time-to-degree, as well as employment and wage outcomes, can be found at https://jobs.mo.gov/jobseeker/training-and-education. Employment and wage outcomes are limited to completers found employed in Missouri. Students not found as employed may also be working out-of-state, self-employed, or enrolled in continuing education. Additional information on programs and program outcomes may be found by searching at https://scorecard.mo.gov/Search.

Admissions

Admission to Graduate Studies

Admission to graduate studies, which permits enrollment in some graduate classes, is not equivalent to admission for a particular graduate degree or certificate. Refer to the information below for specific admission types and processes.

Application Procedures for Degree- or Certificate-Seeking Students: Individuals interested in pursuing a graduate degree or certificate at the University of Central Missouri can contact the Graduate Studies Office (Domestic Students) or the International Student Services Office (International Students) for application and program information. All students can apply for admissions online. All domestic student application materials should be received by the Graduate Studies office at least three weeks prior to the beginning of the semester in which the student wishes to register. International students should see the International Student Admissions section for information on application and material deadlines for immigration purposes.

All domestic degree-seeking applicants must:

- Submit an online application for admission to the Graduate Studies office.
- Submit official transcripts from the institution where a bachelor's degree was earned or currently in progress of earning, as well as from any university or college attended since obtaining the bachelor's degree.
    - If no graduate credit coursework has been completed, applicants must have an awarded bachelor's degree from a regionally accredited institution.
    - If graduate credit coursework has been obtained, applicants must have a cumulative graduate GPA of 3.0 or higher for admission.
- Include a $30 non-refundable application fee.

When all materials are received, the Graduate Studies office will conduct an initial evaluation. Applicants meeting the University requirements for admission will be forwarded to the program, as designated by the student, for consideration and recommendation. Programs may have additional application requirements. Please review the individual catalog listing for the program of interest for detail regarding program-specific admission requirements. The program, after examining the credentials, will make an admission decision regarding acceptance into the program. After a review of the student's credentials, the program may determine that the student should fulfill certain academic requirements or prerequisites for the degree before beginning program requirements. These requirements will be specified by the program at the time of acceptance into the program. If a student is admitted with conditions to a program and the conditions are not met as prescribed by the program, the student will be changed to "Non degree seeking". The program will notify the student of the action taken and admission status. If admitted to a program, a faculty advisor will be assigned and will assist the student in formulating a program of study leading to the attainment of the student's objectives in pursuing graduate work. Students who are admitted must enroll in program coursework within 12 months or reapply for admission to the program.

Application Procedures for Graduate Non-Degree Students: An individual with an awarded bachelor's degree from a regionally accredited institution who is not seeking a graduate degree may enroll in graduate courses and receive credit as a non-degree student. Applicants for non-degree status must submit an application for admission, the official transcript showing the earned undergraduate degree from a regionally accredited institution and pay the $30 application fee.

A student wishing to change from non-degree status to a degree program must file a new application for admission and adhere to all requirements specified for degree-seeking students. International students with an F-1 or J1 student visa are not eligible to enroll as non-degree status.

Credits earned while in non-degree status are not applicable to a degree or certificate program until a student's classification is changed. If a non-degree student is later accepted into a degree or certificate program, the faculty

advisor will determine how credit earned while in non-degree status may be applied to the proposed degree/certificate program.

Application Procedures for Graduate Non-Degree Students - Special Credit: Students with an awarded undergraduate degree from an accredited institution who wish to enroll for graduate credit in special programs or short courses for one semester may be admitted as non-degree student-special enrollment status.

Enrollment is predicated upon the assurance of the student's eligibility for regular graduate admission. The decision for special credit is made in the Online Learning and Engagement office. For further information, please contact the Online Learning and Engagement office at 660-543-4984 or ucmole@ucmo.edu (HUM 410).

Credit earned while a student is classified as non-degree special credit cannot be applied to a graduate degree or certificate program until the student's classification is changed. After a student applies for admission as a degree-seeking student and is accepted by a program into a specific graduate program, the faculty graduate advisor will determine whether credit earned while a non-degree student-Special Credit is applicable to the student's proposed program.

Application Procedure for a Non-Degree Visiting Student: An individual in good standing as a graduate student at another regionally accredited graduate school may present a Certificate of Acceptance of Credit by his/her home institution and enroll as a non-degree visiting student without submitting complete official transcripts of previous college records. Such a certificate allows enrollment for only one semester. Students in cooperative doctoral programs may have continued enrollment after submitting an application and letter of academic standing from the partner institution in the cooperative doctoral program.

A non-degree visiting student may at any time apply through the regular procedures to be admitted as a degree-seeking or non-degree student. Credits earned as a non-degree visiting student will not necessarily apply to a degree or certificate program. After acceptance into a program, the faculty advisor will determine whether credit earned while a non-degree visiting student is applicable to the proposed program.

Certificate-Seeking only, Non-Degree, Visiting Students - Federal Financial Aid: In accordance with federal regulations, certificate-seeking-only, non-degree, and visiting students are not eligible to receive federal financial aid. To be eligible, a student must be fully admitted to a regular graduate degree or teaching certification program.

Admission of a Transfer Graduate Student: A transfer graduate student is one who has completed graduate credit at another institution within the preceding eight years. Transfer students with less than a cumulative graduate GPA of 3.00 may be admitted as non-degree students. They will not be eligible to become a degree-seeking student until a minimum of nine semester hours of graduate credit with a minimum cumulative GPA of 3.00 has been achieved at UCM. A transfer student should follow the same admission procedures as indicated above. A maximum of nine transfer credit hours, for a Master's degree, or six transfer credit hours for an EdS degree, with a grade of A or B, may be applied at the discretion of the program coordinator. Please see the section under Academic Information, Applying Transfer Credit, for more information.

Prerequisite Degrees: An applicant for admission to a graduate certificate or master's degree program must have a bachelor's degree. An applicant for admission to an Education Specialist degree program must have a master's degree. Prerequisite degrees must be earned from an institution accredited by a regional accrediting body recognized by the U.S. Department of Education, such as

- Accrediting Commission for Community and Junior Colleges (ACCJC) Western Association of Schools and Colleges
- Higher Learning Commission (HLC)
- Middle States Commission on Higher Education (MSCHE)
- New England Commission of Higher Education (NECHE)
- Northwest Commission on Colleges and Universities (NWCCU)
- Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)
- WASC Senior College and University Commission (WSCUC)

Readmission to graduate studies: Domestic students who do not enroll in graduate courses within one year of admission must reapply for admission.

Concurrent Enrollment for a UCM Senior (Graduate Credit for Undergraduate Students)

NOTE: This policy does not apply to those students accepted into an accelerated undergraduate/graduate degree program.

Undergraduate students may take courses for graduate credit with the following stipulations:

- Must be within two semesters of degree completion
- Must have a minimum of 90 undergraduate credit hours earned
- Must have a minimum undergraduate cumulative grade point average of 3.00
- Limited to two semesters of enrollment in graduate courses before completing an undergraduate degree
- Maximum of 12 hours of graduate credit may be completed before admission to graduate program not to exceed 9 hours of graduate credit in one semester
- May enroll in a maximum of 16 credit hours per fall or spring semester and a maximum of 12 credit hours during the entire summer semester, including both undergraduate- and graduate-level courses
- Must submit an undergraduate application for graduation in MyCentral
- Must submit a graduate application for admission through the online application system for the term after their undergraduate graduation
- Must complete a Petition for Concurrent Enrollment each semester

If approval is granted from the program the student will be enrolled in the requested graduate courses by the Graduate Studies office. If a student enrolls in graduate credit courses during the last year of the baccalaureate degree, the student should be planning to complete the baccalaureate degree that year. A third semester of graduate enrollment while an undergraduate student will not be allowed.

Graduate-level courses cannot be applied to an undergraduate degree or certificate programs. Students will not be fully admitted into a graduate program until their undergraduate degree is completed and graduate program admission requirements are met.

Financial Aid Implications During Concurrent Enrollment: For the purpose of qualifying for federal financial aid the student will be classified as an undergraduate at the senior level. Students receiving financial aid should be aware that only those classes taken for undergraduate credit can be included when determining the student's enrollment status (full-time, half-time, etc.) to qualify for federal and state financial aid. A student may not receive financial aid to pay for graduate credit hours until they earn a Bachelor's Degree. Tuition for graduate courses will be at the graduate fee rate. Contact Student Financial Services (660-543-8266) for further information.

International Student Admissions

The Application Process All international students interested in applying to UCM must do so directly through the International Student Services (ISS) office. All questions regarding international admissions should be forwarded to ISS at 660-543-4092 or intladmit@ucmo.edu.

Applicants should apply online at giss.admissions.ucmo.edu/apply. International students are strongly encouraged to submit their online application and required supporting materials as early as possible. Individuals whose applications are complete before the deadlines listed below are given priority for processing.

Fall application deadlines:

- Students applying for Masters in Computer Science, Cybersecurity, Computer Information Systems & Information Technology and Big Data Information Technology programs have a deadline of May 1st.
- Students coming from their home county: June 1st.
- F1 transfer students and other visa types: July 1st.

Spring application deadlines:

- Students applying for Masters in Computer Science, Cybersecurity, Computer Information Systems & Information Technology and Big Data Information Technology programs have a deadline of September 1st.
- Students coming from their home county: October 1st.
- F1 transfer students and other visa types: November 1st.

Summer application deadlines: (for the following programs: Intensive English Program, MS Computer Science, MS Cybersecurity, MS Computer Information Systems & Information Technology, MS Big Data Information Technology and Master of Business Administration)

- Students applying for Masters in Computer Science, Cybersecurity, Computer Information Systems & Information Technology and Big Data Information Technology programs have a deadline of February 1st.
- Students coming from their home county: March 1st.
- F1 transfer students and other visa types: April 1st.

International graduate applicants must submit the following items:

- Application for admission
- $75 (US dollars) non-refundable application fee
- Demonstration of English proficiency. Proficiency may be demonstrated by one of the following:
    - TOEFL exam score of 79 IBT*
    - IELTS Academic exam score 6.0*
    - Duolingo score of 120
    - UCM English Proficiency Exam score of 79
    - An earned degree from a regionally accredited United States college or university.
    - Earned at least 24 semester hours of regular university credit from an accredited United States college or university with a cumulative undergraduate GPA of 2.0 or higher or a cumulative graduate GPA of 3.0 or higher on a 4.0 scale.
    - Applicants whose native language is English and who are citizens of a country where English is the official language will be considered as having fulfilled the minimum English requirement.

*Score requirements subject to change, at-home versions of EP exams are accepted

- Official Transcripts. All graduate students are required to upload unofficial transcripts to their student portal (created upon application submission) and submit official transcripts to our office. These transcripts will be used for advisement purposes. Applicants with questions about credential evaluation requirements should contact the International Student Services office directly via email: intladmit@ucmo.edu.

- Declaration of Financial Support. This document is required to demonstrate sufficient financial support. This document is found on the UCM website and is also emailed to applicants as a part of the application process.
- Official Bank Statement/Certification. This document is required as verification that adequate funds are currently and subsequently available to students in support of their tuition and living expenses while a student at UCM.
- The Declaration of Financial Support and Bank Statement should be sent to the International Student Services office at ISSS@ucmo.edu.

Submitting Official Test Scores: TOEFL scores must be submitted by Educational Testing Services (ETS) and GRE (if required) must be submitted directly to the University of Central Missouri's Testing Services Office (660-543-4919 or testingservices@ucmo.edu). The ETS code for UCM is 6090. IELTS scores should also be sent electronically to UCM's Testing Center. The IELTS School Organization code is 136009. Duolingo scores should be sent to the University of Central Missouri. After submitting your English Proficiency score, please fill out the required form with Testing Services. In cases where electronic submissions of test scores are not possible, official scores may be sent directly by mail to:

University of Central Missouri
Testing Services
JCKL 1250
Warrensburg, MO 64093
USA

GPA Requirement: Applicants must have an undergraduate degree with a cumulative GPA of 2.00 or higher, from the equivalent of a regionally accredited school, determined by a transcript evaluation from the English version of the transcript. Any graduate level coursework must have a cumulative 3.00 or higher GPA. Applicants must submit final official transcripts for all undergraduate and graduate course credit received.

English Language Institute: The English Language Institute (ELI), whose Intensive English Program is accredited by the Commission of English Language Program Accreditation (CEA), offers intensive instruction in English and short-term programs for English language studies. For students who do not meet UCM's English proficiency requirements, the Intensive English Program (IEP) provides courses to improve English language skills and become accustomed to a university setting in the United States. The courses are designed to help non-native speakers of English build on their existing language skills. The IEP offers courses at a variety of proficiency levels in reading, writing, listening, speaking, grammar, vocabulary, pronunciation, testing skills, American culture, and academic preparation. These courses are available for credit or may be taken as pass/fail, and do not count toward completion of an academic degree. Full-time status for UCM's Intensive English Program is 6 credit hours (20 contact hours) per 8-week session.

Intensive English Program to Degree Option: International applicants who meet minimum UCM entry requirements but do not meet minimum English proficiency requirements for regular UCM admission may be granted conditional admission. Conditionally admitted students must maintain full-time enrollment in UCM's Intensive English Program until the minimum TOEFL/IELTS requirement is met or the highest level of the Intensive English Program is successfully completed. Full-time status for UCM's Intensive English Program is 6 credit hours (20 contact hours) per 8-week session. Institutional TOEFL/IELTS results earned at other institutions are not valid at UCM. International students not meeting minimum UCM English proficiency requirements are not permitted to enroll in regular classes.

Orientation: All international students admitted to UCM for the first time are required to arrive on campus on a set date (typically 8-10 days prior to the first day of classes) for orientation and evaluation sessions. Students are required to participate in the in-person orientation, health screening, evaluation sessions and registration. During the orientation sessions, additional testing may be required for any international student whose native language is not English. Depending upon evaluation results, students may be required to enroll in the Intensive English Program or in prerequisites for English Composition (ENGL 1020). Students also participate in a virtual orientation session (usually 4 weeks before classes start) and before arrival to campus.

Health Insurance: All F1 and J1 Visa international students are required to participate in the Student Health Insurance Program.

Immunizations: All students at the University of Central Missouri must have proof of two Measles, Mumps and Rubella (MMR) vaccinations. All students living in University Housing must have proof of Meningitis vaccination after the age of 16. All students must be screened in the United States for tuberculosis infection. All vaccinations and tuberculosis screening can be obtained during the Health Screening portion of orientation. Other testing may be required depending on pandemic or endemic diseases in the U.S. or the student's home country.

Financial Aid: Please note that international students do not typically qualify for US-based federal or state financial assistance unless designated as an eligible non-citizen or a permanent resident by the U.S. Citizenship and Immigration Services (USCIS) of the Department of Homeland Security (DHS). Documentation verifying the student's citizenship status may be required by the UCM Office of Student Financial Services (660-543-8266, WDE 1100)) to determine the student's eligibility for financial aid. Students admitted to UCM are eligible for scholarship consideration and/or continuation based upon meeting minimum criteria established by UCM's Office of Student Financial Services and/or the designated scholarship. More information regarding scholarships is available online at ucmo.edu/scholarships.

Costs

Fees and Expenses

Housing, food service, and instructional fees are assessed for payment prior to the beginning of the semester. Rates are set by action of the Board of Governors and are subject to change. Information regarding fees and expenses is available from the Office of Student Financial Services (Ward Edwards 1100, 660-543-8266) or by visiting ucmo.edu/sfs.

University Fees

Please refer to the Tuition and Costs section of the Student Financial Services website for the current fees.

Missouri Residency - Questions regarding Missouri residency should be directed to the Graduate Studies office, Ward Edwards 1900 (660-543-4729 or gradstudies@ucmo.edu).

Off Campus and Online Classes - Fees vary for courses offered off-site and using distance learning technologies. Refer to the Tuition and Costs section of the Student Financial Services website for the current fees.

Textbook Fees - The fees indicated above do not include the cost of textbooks. Graduate students usually will purchase textbooks; however, if available, some textbooks may be rented for a fee.

Please refer to the University Store for information on rental charges and other textbook-related information.

Special Fees

The following fees are paid only for special purposes or because of certain conditions.

Graduation Fee (billed to all students during their final semester)	$50.00
Graduate Hood Fee (for those who pick up Regalia at the bookstore)	$25.00
Graduation Walk Early Fee	$50.00
Graduation Walk Late Fee (per each semester late)	$50.00
Transcript (per official copy)	$10.00
Dale Carnegie First Transcript (subsequent are $10 each)	$50.00
Replacement or Duplicate Diploma	$25.00

Supplemental Course and Program Fees

Certain courses and programs require supplementary fees, materials, supplies, and activities at additional expense to the student. Additional fees can be found here.

Determination of Missouri Residency for Fee Purposes

The Missouri Department of Higher Education has issued regulations to be applied by Missouri universities to determine the resident status of students. This regulation is available at *6 Code of State Regulations 10-3.010*. The burden of proof in establishing residency rests with the student. Students who are legal minors or tax-dependents whose parents reside outside the state of Missouri are not eligible for resident fee-paying status. One can be classified as a resident for fee purposes immediately upon moving to the state if the move is to accept full-time employment (or if one is the dependent of someone who came to Missouri to accept full-time employment). In other situations, continuous domiciliary presence in the state for 12 months must be proven AND sufficient proof of intent to be domiciled in Missouri permanently must be provided. Residency is determined by each educational institution. Residency for attendance at a community college, obtaining a driver's license or serving in the Missouri Guard will not necessarily mean a residency determination for fee purposes at UCM.

Applications and additional information are available for graduate students in the Graduate Studies Office (Ward Edwards 1900, 660-543-4729) and for undergraduate students in the Office of Undergraduate Admissions (WDE 1400, 660-543-4290) .

Financial Responsibility

Students are responsible for paying all charges incurred due to class enrollment, room and board choices, and fines. Full payment due dates are published on the Office of Student Financial Services website, and on the student billing statement. All billing statements are electronic and available online in MyCentral. Non-payment of charges or failure to make payment arrangements by the due date will result in additional fees being charged and may result in classes being dropped. The University assesses a 1.5% monthly payment plan fee based on the unpaid balance for charges previously billed but not paid in full. Collection costs are assessed if collection action becomes necessary. For additional information regarding the payment of charges, visit ucmo.edu/sfs.

Refund Policy

Reduced Load. Refunds of instructional fees for student-initiated reduction in class load will be processed after the third week of classes. Refund deadlines may vary per class based on the start and end dates of the course. Students should consult the dates available in MyCentral for the specific refund deadlines for each of their courses.

No refund of instructional fees will be made for student-initiated reduction in class load after the last day to drop with a 25% refund.

If a fee amount would be reduced due to load changes caused by failure of classes to materialize, class cancellation by the university, or from drops for the Enrollment Validation Policy, a full refund for that class will be made.

NOTE: A federal financial aid recipient who drops to less than half-time enrollment status should be aware that depending on his/her class attendance records, some or all the assistance credited to the student's UCM account for the semester may have to be reversed.

NOTE: Students participating in a Study Abroad program, when permitted to withdraw from a course, will not receive any refund.

The following refund schedule for instructional fees applies:

For fall and spring semester full-semester classes (16 weeks)*:

- Withdrawal during the first four days of classes: full refund
- Withdrawal during day five through day eight of classes: 50 percent refund

- Withdrawal during day nine through day twelve of classes: 25 percent refund

For fall and spring semester half-semester classes (8 weeks); summer 8-week (session S9K) and 12-week (session SFM) classes*:

- Withdrawal during the first three days of classes: full refund
- Withdrawal during day four through day six of classes: 50 percent refund
- Withdrawal during day seven through day nine of classes: 25 percent refund

For classes in any semester that are 7 weeks or less*:

- Withdrawal during the first two days of classes: full refund
- Withdrawal during the third day of classes: 50 percent refund
- Withdrawal during the fourth day of classes: 25 percent refund

For off-schedule classes*:

The refund (100%, 50%, and 25%) schedule for off-schedule classes depends on the course start and end dates. Students can find the deadlines for their courses online in MyCentral.

*Holidays, student breaks, and weekend days are not included in the refund schedules.

NOTE: In accordance with federal regulations, a financial aid recipient who officially or unofficially withdraws from UCM may be required to repay some or all the grant and loan assistance credited to his or her UCM account, based on the date of withdrawal and last date of class attendance/participation for the semester.

Refund Appeals. A student who has completely withdrawn from UCM (all classes in a semester) and believes that a refund greater than the established schedule states should be issued may submit a written request to the Office of Student Experience and Engagement (ADM 214, 660-543-4114). Students who have dropped one or more courses for a semester, but not all classes may use the refund petition form in MyCentral. The reasons and unusual circumstances believed to justify a larger refund must be outlined in the written request. All requests for refunds must be submitted within two weeks of the end of the semester for which the fees were paid.

If a special refund request is approved by any UCM office, any credit, or negative student account balance, generated because of the refund will be applied as follows:

1. Institutional Scholarships (if student did not achieve the required 12 credit hours that semester); then
2. Unsubsidized Loan; then
3. Subsidized Loan; then
4. Student

Student attendance must be confirmed by the Financial Aid Office for any federal aid for that term, or any aid could be returned to the Dept. of Education, per the existing regulations.

Withdrawal. Students who find it necessary to withdraw from UCM (drop all courses in a semester) must notify the Office of Student Experience and Engagement (ADM 214, 660-543-4114). International students must notify International Student Services (Ward Edwards, 1800, 660-543-4092) prior to beginning the process of withdrawal from the university.

Federal Financial Assistance

One of the best investments a person can make in his or her future is a graduate education. To help a graduate student achieve his or her educational goals, UCM offers federal loan and employment aid programs.

Each student's economic situation is recognized as unique, and every federal financial aid application is examined on an individual basis. It is very important for each applicant to:

- Submit the Free Application for Federal Student Aid (FAFSA) on time.
- Comply with all financial aid instructions, procedures, and requests for information and documents.
- Enroll at least half-time (three or more graduate credit hours) each semester in courses that are applicable to the degree program.
- Contact UCM's Student Financial Services office with any questions or concerns you may have:

In person: Ward Edwards Building 1100
Telephone: 660-543-8266
Fax: 660-543-8080

Federal financial assistance can be used to help pay direct educational expenses, such as fees, books and supplies, and residence hall charges, as well as variable living costs, such as off-campus housing, food, transportation, childcare, and other personal costs related to attending UCM. Although the responsibility for meeting educational and living costs lies with the student, financial aid from the following federal programs can be awarded to supplement a student's ability to pay his/her total expenses. Any other assistance received must be included and could impact a student's eligibility for federal aid.

To be eligible to receive federal financial aid, students must have a documented record of attendance in the classes for which they enroll. Registration for classes is not sufficient to prove attendance. A student who receives or otherwise benefits from federal financial aid but has no documented record of attendance in the class(es) for which (s)he is enrolled, is not eligible to have received/benefitted from the aid, and will be required to repay all or part of the federal assistance credited to his/her UCM account for the semester. For information on return of federal funds, review the Student Financial Services policy.

Federal Financial Aid Available to Graduate Students

Student Loans - Low-interest Unsubsidized Stafford Loans are the only type of federal aid (other than Federal Work Study) available to graduate students, and must be repaid, but usually not until after the student graduates, withdraws, or drops to less than half-time enrollment status.

Federal Work Study - A Federal Student Aid program that provides funding for part-time employment for some eligible students that need assistance meeting their postsecondary educational costs. Eligible students must secure qualified employment and begin working to receive these funds.

Satisfactory Academic Progress

Federal law requires that each graduate student who wishes to continue receiving federal financial aid maintain satisfactory academic progress toward the completion of his or her Master's or Education Specialist degree program. Satisfactory academic progress is defined as having successfully completed at least two-thirds of the credit hours attempted during their degree program to be eligible for financial aid for the subsequent year. In addition, a graduate student must maintain at least a 3.00 cumulative graduate GPA. Graduate and Education Specialist students must

complete their degrees within the following parameters: 1. Master's: 54 Graduate hours 2. Education Specialist: 45 Graduate hours beyond a Master's degree.

UCM Bound Out of State Scholarship

The UCM Bound Out of State Scholarship allows new, incoming Graduate students whose permanent residence is one of the following states to pay in-state tuition and fees for all classes on the main campus in Warrensburg. The eligible states are: Arkansas, Illinois, Iowa, Kansas, Kentucky, Nebraska, Oklahoma, Tennessee, Texas, New Mexico, Colorado, Wyoming, and South Dakota.

Non-Resident Fee Credit

If a non-resident student pays income tax in Missouri or is in the legal custody of a parent who pays income tax in Missouri, a credit will be provided against the non-resident student fee. For information on this credit contact Student Financial Services.

Other Assistance

Many scholarships from a wide variety of sources are awarded each year to graduate students. Information and applications are available at ucmo.edu/scholarships. Financial aid recipients should be aware, however, that receiving non-UCM, and UCM, financial aid or educational benefits can result in an adjustment to the federal aid that may have already been awarded and/or disbursed.

Short-Term Loans

UCM realizes that many students are dependent upon federal financial assistance to satisfy the costs of attending UCM. However, students are still expected to have some money on hand to pay for school related costs during the first few weeks of each semester not charged by UCM. If an emergency arises, however, a student can apply at Student Financial Services for short-term loan funds (not to exceed $500). These funds usually must be repaid within 60 days. A $10 service charge will be levied to borrow money from the short-term loan fund.

Graduate Scholarships

Applications for the scholarships awarded by Graduate Studies are available online. A complete list of scholarships is available online through the UCM Scholarship Finder.

Graduate Student Achievement Award (administered by Graduate Studies) - This award waives $1,000 of the recipient's fall or spring tuition/fees. The award is based on high academic achievement and leadership qualities. The award is applicable only toward mandatory tuition and fees. Students who receive a full graduate assistantship are not eligible for the award. Deadline: is per semester by the last day to add or drop classes, for either Spring or Fall semesters.

Graduate Non-Resident Scholarship (administered by Graduate Studies) - Covers the non-resident fees for graduate study at UCM for all students enrolling no later than the fourth semester following graduation from an undergraduate program at UCM; the student must have earned a minimum of 60 hours at UCM with a 3.00 or higher UCM GPA; renewable for six semesters if the student maintains a graduate GPA of 3.40 or higher. Deadline: Must submit paperwork prior to the semester it applies to.

Warren C. Lovinger Graduate Student Scholarship - **A** scholarship award has been given annually since 1980 in honor of Dr. Warren C. Lovinger, past president of UCM. Applicants must have received an undergraduate degree from UCM prior to June 1 of the year the award is granted and must have completed 60 credit hours of undergraduate credit at UCM. Current graduate students must have a minimum grade point average of 3.75. Deadline March 15.

The Reid Hemphill Outstanding Graduate Student Award (administered by Graduate Studies) - This cash award is given to the university's outstanding graduate student. The award was funded and established by Dr. Reid Hemphill, UCM's first graduate dean. Nominations are made by faculty members to their deans. The deans of UCM's colleges then nominate one student from the college for the award. The recipient is selected by the Graduate Council. Deadline: March 1.

Graduate Assistantships

The University of Central Missouri offers graduate assistant positions to many qualified students each year. Graduate assistantships include teaching, laboratory, research, student affairs, and administration positions. Generally, full assistants work 20 hours per week for each week school is in session. This assistantship includes a tuition scholarship for graduate-level coursework and a stipend. If the assistantship is three-fourths time, one-half time, or one-quarter time, workload and scholarship are adjusted accordingly. The graduate assistantship does not provide scholarship for classes taken for non-credit, pass/fail, audit, or undergraduate credit.

Criteria for Graduate Assistantships - Eligibility for consideration and continuation of a Graduate Assistantship requires a student to meet all the following requirements.

- Possess a baccalaureate degree from a regionally accredited institution by the time the assistantship is to become effective.
- Be accepted into a graduate degree program at the University of Central Missouri.
- Have earned an overall undergraduate grade point average (GPA) of 2.70 or an undergraduate major GPA of 3.00 in an appropriate major. If the student has completed graduate work prior to application, the student must have earned a cumulative graduate GPA of at least 3.00. If a student does not have a 2.70 undergraduate cumulative GPA or 3.00 undergraduate GPA in an appropriate major, a student may apply for an assistantship after the completion of nine semester hours of graduate work with at least a 3.00 cumulative GPA.
- All department requirements must be met.

Types of Graduate Assistantships

- **Teaching Assistants** - Generally, full teaching assistants teach two three-credit hour undergraduate courses per semester. Some teaching assistants aid instructors with large classes. The University of Central Missouri complies with RSMO 170.012 which reads in part:

Section 2.1. Any graduate student who did not receive both his/her primary and secondary education in a nation or territory in which English is the primary language shall not be given a teaching appointment during his or her first semester of enrollment at any public institution of higher education in the state of Missouri. Exceptions may be granted in special cases upon approval of the chief academic and executive officers of the institution. Section 2.2: All graduate students who did not receive both their primary and secondary education in a nation or territory in which English is the primary language shall be tested for their ability to communicate orally in English in a classroom setting prior to receiving teaching appointments. Such testing shall be made available by the public institutions at no cost to the graduate student. Section 2.3: All graduate students prior to filling a teaching assistant position as a graduate student, who have not previously lived in the United States, shall be given a cultural orientation to prepare them for such teaching appointment.

- **Laboratory Assistants** - Laboratory assistants conduct laboratory activities, conduct music studio classes, assist in coaching an athletic team, or work in a computer lab.
- **Research Assistants** - Research assistants support faculty and staff in research activities.
- **Administrative Assistants** - Administrative assistants work in campus offices.
- **Student Affairs Assistants** - Student affairs assistants assume responsibilities in various student services offices including the Elliott Union, residence halls, and intramurals.

Procedures for a Graduate Assistantship Application

A graduate student interested in applying for a Graduate Assistantship should:

- View the list of available graduate assistantship positions online. Check the website frequently, as new positions are often available.
- Submit an online application to those positions for that the student meets the qualifications.
- Upload three (3) letters of reference, all position-specific requirements, and all official transcripts.

The student is responsible for ensuring their application is complete. Action on the student's application cannot be taken until transcripts and reference letters have been uploaded.

Although applications can be submitted anytime, students are urged to complete the application and submit credentials as early as possible. Positions will be available online until they are filled.

If a current graduate assistant wishes to have the appointment renewed, the student should consult with his/her supervisor.

Policies for Graduate Assistants

For current Graduate Assistantship information review the GA Employment Handbook. All newly hired Graduate Assistants receive the *Graduate Assistant Employment Handbook: Policies and Procedures* manual. A student may be awarded an assistantship for a maximum of four semesters, excluding summer sessions. An Education Specialist student who has had an assistantship or grant-funded research assistantship while working on a master's degree may have three additional semesters, for a total of seven semesters as a graduate assistant, excluding summer sessions. A student who is working on a second master's degree is not eligible for any additional semesters of an assistantship if they have already fulfilled their four semesters.

All graduate assistants must be enrolled in at least six hours of graduate credit each semester. The recommended number of hours for half and full graduate assistants is nine hours per semester. The maximum number of hours for any graduate student with a half or greater assistantship is 12 hours per semester. Students who hold less than half-time assistantships may take a maximum of 16 hours during a regular semester.

The maximum number of hours for students holding a summer appointment as a graduate assistant is nine hours for the summer. Courses taken for undergraduate credit and for audit are included in the maximum total semester hours. A full graduate assistantship includes a scholarship with a maximum monetary amount. The scholarship for less than full assistantships will be adjusted accordingly.

Please be aware that any scholarship received as part of an assistantship can have an impact on the total amount of federal student loan and employment assistance a graduate student is eligible to receive. The amount of the assistantship (stipend) has no impact on the total federal financial assistance received during the year for which the assistantship has been awarded. For additional information, contact UCM's Student Financial Services.

For additional information about graduate assistantships, contact the Graduate Studies Office, Ward Edwards 1900, at 660-543-4729.

Veteran Services

The University of Central Missouri office of Military and Veteran Services assists veterans, service members, and dependents requiring services and benefits from the Veterans Administration, Military Tuition Assistance and any state or federal benefits. Students seeking to use benefits must contact our Military and Veteran Services office and fill out the Veterans Certification Request Form each semester they seek to use their benefits.

UCM is in compliance with the requirements of PL 113-146 the Veteran Access, Choice and Accountability Act of 2014, Section 702. UCM will waive all non resident rates to uniformed service veterans and their qualified dependents covered under Section 702.

For recipients of Chapter 31 and Chapter 33 of the G.I. Bill® , the University will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries or other institutional facilities, or the requirement that a Chapter 31 or Chapter 33 recipient borrow additional funds to cover the individual's inability to meet his or her financial obligations to the institution due to the delayed disbursement of tuition or mandatory fees payment by the U.S. Department of Veterans Affairs. See Section 103 of the Veterans Benefits and Transition Act of 2018 for the chapter.

However, to qualify for this provision, such students may be required to:

- Produce the VA's Certificate of Eligibility (COE) by the second week of class.
- Provide a written request to be certified by submitting the Certification Request Form.

UCM is in compliance with providing in-state rates for VA beneficiaries.

Below is a list of programs that are currently not approved for VA funding at UCM:

- Alternative Certification Program
- Individualized Programs *Except BS and BA General Studies
- THRIVE Program
- Last 2 years of the Radiologic Technology Program is not funded by VA at UCM as it is completed at affiliates and their sites. Students will need to contact affiliate to see if it is approved for VA funding.

Certifying Graduate Training for Students using VA benefits

The School Certifying Official will enter the full-time indicator upon certifying benefits to the VA and VA will make the final determination of rate of pursuit.

Per the VA School Certifying Official Handbook:

Enter the training time (full, ¾, etc.) in the TT/FT box for the enrollment period based on your school's academic policy. The institution determines what is considered full-time.

Weeks	Credit Hours	TT/FT
16 weeks	6	Full time
16 weeks	5	3/4
16 weeks	4	Half time
16 weeks	3	Half time
16 weeks	2	Less than half but greater than 1/4
16 weeks	1	1/4 or less

12 weeks	6	Full time
12 weeks	5	3/4
12 weeks	4	Half time
12 weeks	3	Half time
12 weeks	2	Less than half but greater than 1/4
12 weeks	1	1/4 or less
8 weeks	6	Full time
8 weeks	5	3/4
8 weeks	4	Half time
8 weeks	3	Half time
8 weeks	2	Less than half but greater than 1/4
8 weeks	1	1/4 or less
6 weeks	6	Full time
6 weeks	5	3/4
6 weeks	4	Half time
6 weeks	3	Half time
6 weeks	2	Less than half but greater than 1/4
6 weeks	1	1/4 or less

*Students using Chapter 33 benefits must be 51% enrolled to receive a housing stipend.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs.

Graduate Appeals/Petitions

A graduate student may appeal certain decisions related to policy stated in the Graduate Catalog. The appeal begins by completing a Petition to Graduate Studies. The petition is submitted to the appropriate office in Graduate Studies and reviewed by a Graduate Studies representative, or in some cases by the Graduate Council. Input and recommendation from the school or academic unit where the student is active may be requested. Schools and academic units will designate the individual(s) authorized to review the appeal.

If the student is not satisfied with the appeal decision, the petition plus any additional information is again reviewed by the appropriate Graduate Studies representative and forwarded to the Graduate Council for review. The Assistant Vice Provost for Graduate Studies may request the Graduate Council to review exceptional cases or those in which there is a conflict of interest without first rendering a decision. The decision of the Graduate Council is final in all appeals submitted to it by the student or the Graduate Studies representative.

To ensure compliance with federal and state laws, codes, regulations, and accreditation requirements, the following policies are not subject to appeal by the student:

- The minimum graduate grade point average required for admission to the University of Central Missouri as a transfer graduate student.
- The minimum graduate grade point average required for appointment as a graduate assistant.
- The minimum graduate grade point average required to be re-appointed as a graduate assistant.
- The minimum overall UCM graduate GPA required to receive a graduate degree or certificate.
- The minimum number of semester credit hours required to receive a graduate degree or certificate.
- The maximum hours of C grades that can be applied toward a graduate degree or certificate.
- The maximum hours of transfer credit that can be applied toward a degree or certificate.
- The minimum number of required semester credit hours taken at the 5000/6000 level at the University of Central Missouri to receive a graduate degree or certificate.

Credit Hours

Academic units are measured in credit hours. Most classes are worth three credit hours, but credit hours may vary from 0 to 5 or more, depending on the course. A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is not less than: (a) one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester hour of credit or the equivalent amount of work over a different amount of time; or (b) at least an equivalent amount of work for other activities as established by the institution, including laboratory work, internships, practica, studio work, and other academic work leading toward the award of credit hours; or (c) institutionally established reasonable equivalencies for the amount of work as described above as represented by verifiable student achievement of intended learning outcomes.

Applying Transfer Credit to a Graduate Program

Upon approval, a student may transfer graduate credit from another institution to a UCM graduate program. Transfer credit is limited to a maximum of 50 percent of the required hours for a graduate certificate, nine credit hours of a master's degree, and six credit hours of an Education Specialist degree.

Requirements for transfer credit include:

- Course must have been taken for graduate credit.
- Course must have been taken at a regionally accredited institution recognized by UCM.
- Course must be applicable toward a graduate degree at the university granting the credit.
- Course must not have been used to satisfy requirements for a degree or certificate granted by another institution.
- Course must be applicable to a student's UCM graduate program.
- Course must be a grade of B or higher to be transferred.
- Transferred credit will not contribute to the GPA at UCM. The grade will be posted with a grade of "CR".

Procedures for transfer of credit:

- A final official transcript including the courses to be transferred must be submitted via the student application portal.
- The graduate program coordinator will review and evaluate the transfer credit. If the credit is approved for transfer, the program coordinator will submit a substitution form in MyCentral to the Registrar's Office.
- Upon approval, the Registrar's Office will post the approved transfer credit as "CR" (credit) to the student's UCM transcript. This indicates that credit, but no grade, is awarded for the course. The course will appear on the Central Degree Audit.
- UCM reserves the right to accept or reject any credit for transfer.

Other Types of Credit

Credit earned by correspondence (not including distance learning, Internet and web-based courses) may not be applied toward graduate program requirements. In certain instances, academic schools will evaluate official work-related certifications and licenses granted by fully accredited national and state boards and officially recognized professional organizations to determine whether or not graduate credit may be awarded toward the fulfillment of graduate program requirements. The academic value of the certificate or license must match an existing course in the program's curriculum.

To initiate the procedure students must request an assessment from the academic program to determine if credit is possible and provide documentation supporting the request for credit. In the event that a certificate or license was not obtained, academic schools reserve the right to test competencies and performances in these areas and to determine the hours and the nature of the credit to be assigned, if any. The academic school will then submit a petition to the Vice Provost of Academic Programs and Services for approval of the credit toward the degree. Academic schools reserve the right to not accept work experience of any type toward credit in their programs. Students must be currently enrolled as a degree or certificate-seeking student at UCM to be awarded these types of credits. Credit will be posted after the enrollment period for the semester has ended (typically during the second week of the semester).

This type of credit is denoted with a CR on the Central Degree Audit and transcript. A student may petition for a maximum of nine semester hours of credit in this category but are limited to a total of nine semester hours of combined credit between this earned credit category and transfer credit.

Academic Load

The normal load per semester for a graduate student is 9 to 12 semester credit hours. A full-time graduate student is one enrolled in six or more credit hours per fall and spring semesters or six semester hours in the summer session. Most of UCM's graduate degrees require 30 credit hours. Some programs require additional hours.

A graduate student may enroll in a maximum of 16 credit hours per fall or spring semester and a maximum of 12 credit hours during the entire summer semester, including both undergraduate- and graduate-level courses. Some

programs limit students to fewer credit hours per semester. Under extenuating circumstances, students with at least a 3.50 graduate grade point average may submit a petition to Graduate Studies (WDE 1900, 660-543-4729) office through their academic school to enroll in more than the maximum number of credit hours. Approval must be granted prior to the semester that the student wishes to enroll for more than the maximum hours.

If students are enrolled for coursework at other institutions of higher education while concurrently enrolled at UCM, the total number of semester hours taken in any enrollment period may not exceed the maximum specified for a full-time, resident student at UCM.

International students must enroll in a minimum of six semester credit hours per semester. Of these six hours, only three hours may be in online coursework. Please note that full-time status for UCM's Intensive English Program is six credit hours (20 contact hours) per 8-week session. The International Student Services (ISS) office must approve concurrent enrollment for any international student prior to the beginning of each semester. To meet concurrent enrollment requirements, international students must be enrolled in a minimum of six semester hours of work at UCM and at least six semester credit hours of work at another SEVIS-approved higher education institution for a minimum total of 12 semester credit hours of work in a semester.

Summer Course Load Policy

The maximum course load is 12 credit hours for the entire summer semester. While UCM recognizes six (6) hours as full-time status during the summer for graduate students, students must be enrolled in at least 3 credit hours to receive Federal Loans. Under extenuating circumstances, graduate students with at least a 3.50 graduate grade point average may submit a petition to the Graduate Studies office through their academic school to enroll in more than the maximum number of semester hours. Approval must be granted prior to the semester that the student wishes to enroll for more than the maximum hours.

International students are not required to enroll in summer hours unless they are in the first semester of their academic program at UCM. International students beginning their academic program in the summer must complete a minimum of six credit hours for the entire summer semester. Please note that full-time status for UCM's Intensive English Program is 6 credit hours (20 contact hours) per 8-week session.

Class Attendance

Class participation and attendance are essential for student success. The University has no provisions whereby a student can enroll and receive credit at the University of Central Missouri without having attended and/or participated in class. This principle applies to all courses for which credit is awarded regardless of mode of delivery.

Students are expected to attend all lectures, seminars, laboratories, and fieldwork for each registered class, and to complete all work assigned by the instructor for the course. Advance arrangements for unavoidable absences should be made with the instructor whenever possible. When absent for three days or more, a student may ask the Office of Student Experience and Engagement (660-543-4114, ADM 214) to send an informational note to his/her instructors. Neither absence, nor notification of absence, relieves the student of the responsibility for the fulfillment of all course requirements.

Make-up of course requirements missed because of extenuating circumstances shall be worked out between the instructor and the student upon the student's initiative. Instructors are required to allow the student the opportunity to earn full credit for missed work when a student is absent because of participation in approved university activities, university programs (that the student is required to attend), or when absence has been verified by the Office of Student Experience and Engagement. A student must contact his/her instructor on the first day the student returns to class. Instructors may stipulate special attendance requirements in the course syllabus, whenever they do not conflict with the student's right to make up missed work as described above.

When absent due to extenuating circumstances such as documented medical issues, a death in the family, or military order, a student may ask the Office of Student Experience and Engagement to verify the absence. If the absence is verified, the student will be provided a written electronic notice which (s)he may distribute to faculty. It is the responsibility of the student to make the request within a reasonable time frame, distribute the documentation to faculty within two days of receiving it, and to make arrangements with faculty to make up all missed work.

The University Health Center (UHC) does not provide medical excuses and/or Time-In Time-Out slips to students for the purpose of being excused from class. When medically indicated, the health center may recommend a student not attend class. Student Experience and Engagement will be contacted by UHC staff to communicate the recommended absence to the student's instructors.

To be eligible to receive federal and state financial aid, students must have a documented record of attendance in the classes for which they enroll. Registration for classes is, in itself, not sufficient to prove attendance. A student who receives or otherwise benefits from federal or state financial aid, but has no documented record of attendance in the class(es) for which (s)he is enrolled, is not eligible to have received/benefited from the aid, and will be required to repay all the federal and state assistance credited to his/her UCM account for the semester. For information on the return of federal funds, review the Student Financial Services policy.

Students who are not reported as absent during the Enrollment Validation period and never attended a course will receive an "F" grade and are financially responsible for the course. UCM does not have an administrative drop policy to remove students from courses after the Enrollment Validation period.

Field Trips

At times, field trips are planned in conjunction with course assignments. Students in classes for which such trips are planned are to be given sufficient advance notice to make necessary arrangements for absence from the campus. Field trips are not scheduled during final examination periods nor can they be required by an instructor. Work missed in other classes may be made up, although instructors are not required to provide tutoring. All arrangements are subject to the limitations of university liability coverage.

When transportation is provided for the class, faculty may arrange for wheelchair accessible transportation by contacting Accessibility Services (Elliott Student Union 224, 660-543-4421).

Final Examinations

Final examinations are given at the end of each semester according to a published schedule. Permission to take an examination out of scheduled hours is granted only in special cases, with the approval of the instructor of the class and the Vice Provost for Student Experience and Engagement. Any student who has three final examinations scheduled on any one day may request permission to move one of the examinations to another day during the final examination period. There is no charge for this, but approvals must be secured as described above. Resolution of conflicting examination schedules, as well as arranging make-up examinations, must be made with class instructors.

Final Grades and Transcripts

Final grades can be reviewed online in MyCentral. A student number and password are required to access MyCentral. Grade reports are not mailed or e-mailed to students from UCM. Official transcripts can be ordered for a fee. Unofficial transcripts are available to currently enrolled students free of charge in MyCentral. Unofficial transcripts do not show degrees or certificates earned.

Central Degree Audit (DegreeWorks)

The Central Degree Audit (also called DegreeWorks) is the degree audit reporting system used at UCM. The Central Degree Audit produces a report that reflects a student's degree or certificate requirements in a given catalog year and degree or certificate program. It includes both transfer credit (if awarded) and UCM credit and shows a student's progress toward graduation. This report designates the number of credit hours earned, both cumulative and UCM grade point averages, and a listing of courses completed.

Students can access their Central Degree Audit in MyCentral.

In addition to the Central Degree Audit reflecting the student's current academic program, students may run a "what-if" degree audit to explore how their current courses completed would apply to different programs or catalogs.

Degree audits may include double majors. Students pursuing double degrees can view two different degree audits, one for each degree.

Students should run a copy of their Central Degree Audit prior to enrollment in future semesters to see what requirements are remaining. After enrollment, a second-degree audit should be run and saved to ensure that the courses scheduled fulfill degree requirements as expected.

Deviations from program requirements must be approved in writing by the school chair or graduate program coordinator and submitted to the Office of the Registrar to be reflected on the Central Degree Audit. No substitutions are permitted for courses required in the degree program when a student has earned a grade below a B in the course. Schools may require students to take an aptitude or qualifying examination before making any exceptions to the Central Degree Audit. Students should check specific program requirements listed elsewhere in this catalog and with the graduate program advisor.

Degree/Certificate Revocation Policy

It is the policy of the University of Central Missouri that a degree or certificate may be revoked when it is demonstrated by clear and convincing evidence that:

- A degree/certificate had been erroneously conferred when all requirements had not been satisfied at the time the degree or certificate was granted.
- A degree/certificate had been erroneously conferred as a result of an act of academic dishonesty.

The university president is charged with developing procedures to implement this degree/certificate revocation policy. The President, the Provost, and the faculty will develop such procedures including the appropriate levels of procedural due process extended to the degree or certificate recipient.

Unauthorized Persons in Classrooms

Persons who are not officially enrolled in a course may not attend any class session without the prior consent of the instructor and the school chair. In unique situations, the instructor and the school chair may, at their discretion, approve a request for a child/guest to attend a class session. In these instances, the student is responsible for supervising the child/guest and for any inappropriate behavior.

Students who have a "U" grade (unfinished work) from a prior semester may finish only the portion of the course remaining. They may not sit through an entire course again in order to complete the unfinished work. Students who need to attend the entire class must re-enroll in the course and pay fees accordingly. An individual who wants to attend a class for no academic credit may do so by following the University's policy on auditing courses.

Change of Degree or Program

A student may initiate a change from one degree program to another degree program by submitting an Application for Change of Major to the Graduate Studies Office. Graduate credit earned in one degree program is not applicable to a different degree program. In the event of a change in the degree program, a student must meet all requirements of the new degree program. A student should consult with faculty advisors for specific details. A student may initiate a change from one degree program to another degree program only if they are in good academic standing with a cumulative graduate grade point average of 3.00 or above.

Comprehensive Examinations

Academic programs may require students to take a comprehensive examination. Students should check specific program requirements listed elsewhere in this catalog and with the graduate program advisor.

Research

While multiple offices are involved in supporting all scholarly activities on campus, Graduate Studies are charged with centralized support, which is performed in conjunction with the University Research Council and the Graduate Council. An additional area involved is the Office of Sponsored Programs and Research Integrity (OSPRI). OSPRI also maintains information about funding opportunities, assists in proposal development and submission, and ensures compliance with award management and reporting. OSPRI is located in the Wared Edwards 1900; 660-543-4264; researchreview@ucmo.edu.

Research Involving Human Subjects - To comply with federal regulations and to protect the health and safety of human or animal subjects involved in research, all research protocols involving the use of human or animal subjects must be in compliance with *Academic Procedures and Policies #9: Procedures for Human or Animal Subjects Review*. In all cases involving human or animal subjects in research, an application must be completed and approved in advance by The Human Subjects Review Committee or the Institutional Animal Care and Use Committee before the research may start. Information and applications are available at ucmo.edu/humansubjects.

Animal Research - Federal law requires that all research projects involving the use of selected mammals and birds be conducted to ensure humane treatment of animals. Accordingly, all such projects, regardless of the funding source, must be approved in advance by the Institutional Animal Use and Care Committee. Forms are available at ucmo.edu/osp.

Thesis and Research Papers

Schools determine whether a thesis or research paper is to be a required part of a master's degree program. Students who are seeking an Education Specialist degree are required to complete a thesis or a research paper.

Thesis - A thesis is the result of research, scholarly, or creative activity that gives evidence of independent, critical, and creative investigation. The thesis demonstrates the ability to define and develop a problem; to understand and synthesize relevant literature; to use appropriate methodology; to analyze and interpret data; and to draw reasonable conclusions based on the investigation. Students completing a thesis may obtain a copy of the UCM Thesis Manual.

Students who begin a thesis, complete thesis course credit hours, and then later decide not to complete the thesis requirement may not use thesis credit hours as program electives. Additional credit hours may be required for degree completion.

Research Papers - Research papers report scholarly findings discovered through library investigation or provide a synthesis of research specific to the area of study. All theses and research papers are presented in an accepted publication style.

Graduate Program Advisors

When a student is accepted into a program, the graduate coordinator will appoint a faculty member as the student's graduate program advisor. The faculty advisor, the student, and the Graduate Studies Office will be notified of this appointment. The student shall seek the advice of the program advisor about enrollment, program planning (including any changes), qualifying examinations, the Program of Study (if applicable), the Central Degree Audit, research studies and/or thesis, comprehensive examinations, and eligibility for graduation.

NC-SARA -Complaint Resolution

SARA's Complaint Resolution Policies and Procedures

One of NC-SARA membership requirements is for institutions of higher learning to provide a student complaint resolution process that is in addition to the university process. Below is information about both processes.

We want you to have the best educational experience possible in your time as a student with the University of Central Missouri. However, if you have a complaint, follow the steps listed below:

- The first step for a student is to file a complaint or appeal with UCM.
- An undergraduate student may appeal a decision related to any policy stated in the UCM Student Handbook. The process for various types of appeals is outlined in the document. For further assistance, please contact Online and Learning Engagement at 660-543-4984 or online@ucmo.edu.
- All students may appeal grades issued by instructors and accusations of academic dishonesty. The procedures for both are in the UCM Student Handbook. Complaints/appeals about grades or conduct will be resolved at the institutional level. Missouri Department of Higher Education and/or NC-SARA portal authorities will not address these issues. However, students who have exhausted all informal and formal institutional processes to resolve disputes may file a complaint with the Missouri Department of Higher Education and Workforce Development.

For Distance Learning Programs:
Complaints about UCM distance learning programs go first through the institution's standard procedure for resolution of student grievances. If a student is not satisfied with the outcome of the institutional process and the home state is a member of NC-SARA (all states except California), the student can contact the Missouri Portal Authority:

Joshua Fischer
State Portal Entity
Missouri Department of Higher Education and Workforce Development
310 W. High Street
P.O. Box 1469
Jefferson City, MO 65102-1469
Phone: (573) 522-1377
Fax: (573) 751-6635
joshua.fischer@dhewd.mo.gov

Additionally, nothing precludes the student from contacting the appropriate complaint agencies in their state of residence. Students residing in California and participating in a distance learning program or course must contact their state agency if they are not satisfied with the institution's response to their complaint/appeal. UCM agrees to abide by the decisions of the Home State's Portal Entity, MDHEWD.
Note: Although students may choose to work through their own state's SARA office for complaint resolution, the SARA office of the state where the provider is located is responsible for staffing the investigation and complaint resolution as needed.

Grading System

A student completing a course at UCM will receive a final grade in the course of an A, B, C, D, or F. Graduate courses may not be taken for Pass/Fail credit. Only grades A through F impact grade point average. The grading system used in evaluating a student's work is as follows:

A - Work of marked excellence

B - Work of superior quality

C - Work of average quality

D - Work of minimal passing quality

F - Failure to do work of passing quality

CR* - Credit for Official Certifications, Licenses, Diplomas, Military Credit, Validated Credit, Prior Learning, Work Experience, and Transfer Credit

LD** - Designates a Late Drop of a course (but not the entire semester schedule), granted for extenuating circumstances after the published last day to withdraw

LW** - Designates a Late Withdrawal of a complete semester's schedule, granted for extenuating circumstances after the published last day to withdraw

NC - No credit granted for course (audit)

NR - No grade reported by instructor

SC* - Credit by examination

U - Course not completed for justifiable reasons, students may not graduate with a U on their record

W** - Course dropped during withdrawal period

WA** - Course dropped administratively

* CR and SC credits do not count towards 5000/6000-level requirements, with the exception of graduate transfer hours approved by a program coordinator.

** For more information about withdrawal grades, refer to the section *Changes in Class Schedules*, and either the Calendar in this catalog or the *UCM Student Handbook*. Course withdrawal and refund dates can also be found in MyCentral.

Computation of Grade Point Average (GPA)

Graduate cumulative grade point average includes only graduate credit completed at UCM. If transfer work is accepted into the graduate degree/certificate program, the transfer work is posted as credit only; grades do not transfer to UCM. Transfer work may not be used to change academic standing. All UCM grades, including all grades

of courses that have been repeated (up to six hours of repeated grades may be petitioned for exclusion from the GPA calculation) are included in the computation.

In order to compute grade point average, total quality points earned are divided by total hours attempted. Each semester hour is assigned a grade point value as indicated below:

1. Each semester hour of A is assigned 4 quality points.
2. Each semester hour of B is assigned 3 quality points.
3. Each semester hour of C is assigned 2 quality points.
4. Each semester hour of D is assigned 1 quality point.
5. Each semester hour of F is assigned 0 quality points.
6. Each semester hour of CR, LD, LW, NC, SC, W, or WA is not considered.
7. Each semester hour of U and NR is not considered until a grade is assigned.

Minimum Grades and Grade Point Averages Required

No grade below a C may apply to the degree/certificate program. In addition, no more than six semester hours of credit with a grade of C will be applied toward degree/certificate requirements. In order to receive a degree or certificate, a student must earn a minimum grade point average of 3.00 in each of the following areas:

1. All work attempted at UCM
2. All work taken to satisfy degree/certificate requirements at UCM

UCM does not freeze grade point average upon graduation. Additional courses taken at the graduate level at UCM will continue to impact the GPA.

Academic Standing

Student academic standing is determined by the cumulative graduate GPA of their latest completed semester. Students can find their academic standing in MyCentral and on the Central Degree Audit. Academic standing is calculated at the end of each semester and students who are not in good standing are notified via campus email from the Registrar's Office.

Good Academic Standing

Graduate students who have both a 3.00 or above cumulative and UCM grade point average are in good academic standing and are eligible to enroll for classes.

Academic Probation

Academic Probation begins the semester in which their cumulative GPA is below 3.00. Students on academic probation may continue to enroll in classes. Students are encouraged to seek advice from their faculty advisor about future enrollments and a plan to return to Good Academic Standing.

Continued on Academic Probation

Students who do not increase their cumulative GPA to a 3.00 or above the following semester are continued on probation. Following three consecutive semesters with a cumulative GPA below 3.00 students become "graduate ineligible." A student may petition Graduate Studies for one additional semester of continued probation before becoming graduate ineligible.

Removal from Probation

A student placed on academic probation will continue on probation until the cumulative GPA is 3.00 or higher. When a student on academic probation raises his/her cumulative GPA to 3.00 or above, the student is removed from probation. Transfer credit may not be used to raise the GPA as transfer grades are not posted for graduate students.

Graduate Ineligible Status

Students who have three consecutive semesters with a cumulative graduate GPA below 3.00 are ineligible to receive a graduate degree or certificate from UCM and will be removed from their degree/certificate program. Domestic students may continue to take classes as non-degree seeking students. Non-degree seeking students are not eligible for financial aid. International students may not attend the university if they are removed from their degree program. Graduate students may petition the Graduate Studies office for one additional semester of academic probation within their degree program while they work to increase their GPA to 3.00.

Reinstatement to a Degree/Certificate Program after Being Graduate Ineligible

Students who are in graduate ineligible status and then raise their GPA to a 3.00 or higher may apply for admission to be reinstated to their degree/certificate program.

Grade Appeals

Students who wish to appeal a grade have until the mid-point of the semester following the semester that the grade was issued.

- For grades issued during the fall semester, the appeal must be made before the end of the eighth week of the spring semester.
- For grades issued during the spring semester, the appeal must be made before the end of the sixth week of the summer term.
- For grades issued during any summer session, the appeal must be made before the end of the eighth week of the fall semester.

These appeals should be directed to the instructor who taught the course in question. Please refer to the current *Grade Appeal Procedure* in the *UCM Student Handbook* for information regarding this procedure. This policy is not for reviewing instances where a student has been accused of cheating, plagiarism, or other academic dishonesty. Also not covered by this policy are grievances based on discrimination.

Unfinished Work

An instructor, at their discretion, may grant an extension and report a semester grade of U when, for justifiable reasons, (a) the student has not completed the work of the course either because of extenuating circumstances beyond the student's control or (b) because the course is of an individualized nature that requires time beyond one semester.

Unfinished work is denoted with a U grade on the transcript. Students may not graduate with a U grade on their record. Most U grades will be changed to F grades on the last class day of the subsequent semester if no other grade change has been submitted. Some courses, as designated by the academic schools, may carry the U grade for up to three years if the course is of an individualized nature, e.g., thesis, research report, or similar investigation. Faculty may extend U grades beyond these limits by submitting a grade replacement on a semester-by-semester basis.

Extenuating circumstances. Extenuating circumstances are those rare and justifiable events, typically after the last day to drop, that are outside of a student's direct control and may include but are not limited to death in the family, substantial personal illness, or military deployment. Faculty may set additional requirements for granting a U grade, including the percentage of the course that must have been completed and satisfactory progress in the course at the time of the extenuating circumstances.

Students with an extenuating U grade do not re-enroll in the class during the subsequent semester but instead, work one-on-one with the instructor. Students are expected to adjust their course load accordingly to complete the unfinished work. The Graduate Program Coordinator may restrict or prohibit future enrollment until work is completed. It is the student's responsibility to contact his/her instructor concerning the removal of the U grade.

When extenuating circumstances warrant a grade of U in a course, graduate students have up to one semester to finish the coursework and earn a new grade unless the instructor sets an earlier deadline. If on the last class day of the next semester (fall, spring or summer) a new grade has not been provided, the U becomes an F.

Courses of an individualized nature. Courses of an individualized nature are those courses, as designated by graduate programs, that may carry the U grade for up to three calendar years and may include but are not limited to thesis, research paper, or other multi-semester projects.

Active student status is required to maintain access to faculty, advisor support, graduate program guidance, library resources, electronic accounts, university research facilities, and other resources. This may be fulfilled by continuing enrollment in additional credit hours of the course in which they carry a U or any additional graduate-level course as guided by the graduate program coordinator. University faculty and staff shall not work with graduate students in that course in any given semester that they are not currently enrolled. Additionally, if a student fails to enroll in coursework and more than one year has lapsed the student must submit an application for readmission to the program before they may return.

When courses of an individualized nature warrant a grade of U in a course, graduate students have up to three calendar years to finish the requirements and earn a grade unless the instructor sets an earlier deadline. If after three years a grade has not been provided, the U becomes an F.

Academic Renewal

Graduate students returning to UCM after an absence of five (5) or more calendar years may petition for Academic Renewal. Academic Renewal will allow the student a "fresh start" towards a graduate degree or graduate certificate program. The renewal will affect all graduate courses taken prior to the absence. The following rules apply:

- Academic renewal does not remove coursework or grades from the student's academic transcript. A notation on the transcript will indicate the granted Academic Renewal.
- Transfer work prior to the Academic Renewal may not be applied to a graduate program.
- Coursework affected by a breach of academic integrity is not included for Academic Renewal.
- Coursework and credit hours forgiven by this policy cannot be used to meet any degree/certificate requirements (prerequisite, graduation, certification, etc).
- Any degree/certificate requirements met prior to the designated Academic Renewal term(s) will need to be retaken.
- All grades earned will be removed from the student's cumulative and UCM GPA calculations but will remain as a matter of record on the transcript.
- The student must petition for Academic Renewal through the Graduate Studies office with approval made in consultation with the graduate programs. Students will still need to apply to the university and be accepted by the program and meet current program admission requirements.
- Once the Academic Renewal has been approved and processed, it cannot be rescinded.
- Students may utilize the benefits of Academic Renewal once.

Students who receive financial aid must meet with a Financial Aid Counselor in Student Financial Services to determine how Academic Renewal could impact federal or state financial aid. Awarding of scholarships after Academic Renewal will be determined by the awarding body. Students who have ever received GI Bill® benefits at any institution must contact Military and Veteran Services regarding the impact of Academic Renewal. Student-athletes must contact the Senior Associate Athletic Director to determine how Academic Renewal impacts athletic eligibility and athletic scholarship.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs.

Enrollment Information

Changes in Class Schedules

Adding Classes
Students may make changes to class schedules using self-enrollment in MyCentral through the Add period*. Fall and spring full-semester courses (16-week) may be added through 11:59 p.m. on Thursday of the first week of classes. Fall and spring half-semester courses (8-week) may be added through 11:59 p.m. on Wednesday of the first week of the class. Courses may not be added after the Add period*, unless a late add is approved by the instructor and school chair of the course.

Dropping Classes
Students may make changes to class schedules using self-enrollment in MyCentral through the Drop period* (through the first four days of the semester for full semester fall and spring courses; through the first three days of the semester for half-semester fall and spring courses). Courses dropped during this time will be given a full refund and will not be entered on the permanent record (transcript).

During the Withdrawal period* (fifth day of the semester through the 10th week of fall and spring semesters for full semester courses; fourth day of the semester through the 5th week of the course for half-semester fall and spring courses), a student may drop any class using self-enrollment in MyCentral. Students are prevented from dropping their final class, for full course withdrawal refer to the Withdrawal from the University information. Students who have a hold on their account will not be able to process course drops in MyCentral and should see their program coordinator, academic department, or the Graduate Studies office (domestic students) or International Student Services office (international students) for assistance with the drop.

A grade of W will appear on the permanent record (transcript) if the course is dropped during the Withdrawal period* (fifth day of the semester through the 10th week of fall and spring semesters for full semester courses; fourth day of the semester through the 5th week of the course for half-semester fall and spring courses). A grade of W has no impact on grade point average but is reflected on the transcript. If a student has been found guilty of academic dishonesty, a grade of F will be recorded and will impact the grade point average.

Students may wish to consult with a faculty advisor and/or the course instructor prior to dropping a course. International students must seek approval from International Student Services (WDE 1800, 660-543-4092) prior to dropping below a full course load of 9 semester credit hours during Spring and Fall and 6 semester credit hours during Summer. Withdrawal from a course during a Study Abroad program is not permitted during the last one-third of the period.

After the published last day to drop a course, a late withdrawal must be approved by the Registrar's Office. If the student is petitioning to withdraw late from all courses, the petition should be directed to the Office of Student Experience and Engagement. Late withdrawals are by petition only and are only approved for documented, extenuating circumstances (e.g., hospitalization, death in the family) that prevented the student from completing the course(s). If a late withdrawal petition is approved, a grade of LD will be assigned. If a complete withdrawal petition is approved through Student Experience and Engagement (ADM 214, 660-543-4114), a grade of LW will be assigned for every class. The instructors of any courses receiving a grade of LD or LW will be informed of the petition's approval. Grades of LD and LW will not impact the grade point average but will be reflected on the transcript.

*Some courses are offered on a variable schedule and are not on the half semester or full semester schedule. Course-specific add, refund, and withdrawal dates may be found in MyCentral.

Waitlisting a Class

Students who wish to enroll in a course that is full may opt to waitlist the course in MyCentral. Not all courses at UCM offer a waitlist option. For those classes that do not offer a waitlist, see the school chair over the course regarding

enrollment. For full semester classes, the waitlist ends on the last day to add a class; this is the fourth day of a class. This is also the same day as the last day for a 100% refund for a class. The waitlist for half-semester classes ends on the third day after the start of classes. During the summer semester, the waitlist ends on the last day to add a class for each of the unique summer sessions.

The waitlist is first-come, first served. If a seat becomes available in a waitlisted course, the first person on the waitlist will automatically be enrolled in the course. An email is sent to the student university email account if a course is added from the waitlist. The waitlist will not enroll a student beyond the maximum allowed hours (16 hours). Nor will the waitlist allow a student to enroll if a time conflict exists between the student's schedule and the waitlisted course or a registration hold exists.

Students waitlisting a course assume responsibility for taking themselves off the waitlist if they no longer want to enroll in the course. Students are responsible for payment and grades in all classes in which they are enrolled. Find detailed instructions on how to use the waitlist online.

Withdrawal from the University

International students interested in withdrawing from the University should first speak with an International Student Advisor. To schedule an appointment, please call or visit International Student Services (WDE 1800, 660-543-4092). In the event a student fails to initiate this process, his/her withdrawal is not considered complete, grades of F will be recorded for failure to attend classes, and the student is responsible for all charges to their account.

Students seeking a complete withdrawal after the published last day to drop a course must petition Student Experience and Engagement (ADM 214, 660-543-4114). Late withdrawals are done by petition only and are only approved for documented, extenuating circumstances (e.g., hospitalization, death in the family) that prevented the student from completing the courses(s). If a late withdrawal petition is approved, a grade of LW will be assigned. A grade of LW will not impact the grade point average but will be reflected on the transcript.

Regulations governing credit for room and board payments are found in the housing agreement. See the Refund Policy for information on the credit of fees. A financial aid recipient who officially or unofficially withdraws from UCM may be required to repay some or all the grant and loan assistance credited to his or her UCM account, based on the date of withdrawal and last date of attendance/participation for the semester, as reported by his or her instructors.

Students Called to Military Service

When a student is called to active military service or training, whether voluntarily or involuntarily, prior to the completion of the semester, that student must submit documentation to the Office of Student Experience and Engagement (660-543-4114, ADM 214) and will be eligible for either:

1. The awarding of a "W" in one or more courses and a complete refund of all tuition and incidental fees charged for those courses withdrawn for that semester, or
2. The awarding of a grade, including a "U", in the course or courses by completing assignments away from class that meet course objectives. For a grade, course assignments must be completed by the end of the semester.

If the student has been awarded a scholarship to be used to pursue an academic program and such person is unable to complete the academic term for which the scholarship is granted, that person shall be awarded that scholarship at any subsequent academic term, provided that the person returns to the academic program at UCM at the beginning of the next academic term after the completion of active military service.

If the student chooses the option described in subsection (1), such person may request that the official transcript indicate the courses from which such person has withdrawn and the reason for the withdrawal, or such person may request that all course titles be expunged from such person's record. Choosing the option of a refund shall not affect the person's official academic record or standing at UCM.

If the student chooses the option described in subsection (2), such person shall complete the course work to the satisfaction of the course instructor and UCM. The grade of "U" shall be converted to a failing grade if the person does not apply to complete the course work within six months of discharge or release from active military service. In the event the person cannot comply for medical reasons related to the active military service, such person shall apply to complete the course work within three months of the end of the period of convalescence. Choosing subsection (2) shall not affect the person's official academic record or standing at UCM, unless the person fails to complete the course work.

Holds

Holds may be placed on student records when the university needs a student to meet particular requirements. Holds can prevent registration (course adds and drops) and block the release of transcripts, grades, or diplomas. Common holds include those for financial issues and health center holds.

Students can check for holds in MyCentral and should contact the office that placed the hold to learn how to resolve the issue. Students should plan to have hold(s) removed prior to their enrollment access date.

Enrollment Validation Policy

Central Missouri enforces an enrollment validation policy. This policy applies to all online, hybrid, and face-to-face classes that begin the first week of classes. The policy also includes any online, hybrid, and face-to-face classes that begin during the first week of second-half semester classes and any of the classes during the five different summer sessions. Dual Credit, zero-credit hour classes, and classes that are off-schedule are not included in this policy. For face-to-face classes, students must attend the first day of each class or have made prior arrangements with their instructors to secure their seat in the course. For online and hybrid classes, students must indicate their intent to attend the course in Brightspace. Students whose instructors report first-day absences will have those classes dropped from their schedule. Students who are not reported absent are responsible for their enrollment in courses including any fees incurred and grades earned. Financial aid recipients who do not attend classes may be required to repay some or all of the assistance credited to their UCM account for the semester.

Enrollment Verifications

Central Missouri has authorized the National Student Clearinghouse to provide enrollment verification certifications for students through MyCentral.

Student Self-Service enables Central Missouri students to print official enrollment verification certifications on demand via a secure student portal, MyCentral, at no charge. These certificates can be sent to health insurers, housing providers, or other organizations requiring proof of enrollment. Students can also check deferment forms and electronic notifications sent to lenders, view their enrollment history, obtain a list of student loan lenders and link to real-time loan information, and view enrollment verifications provided to student service providers at their request.

International students who require an Enrollment Verification should contact the Registrar's Office for assistance.

Repeat Enrollment in Courses

A graduate student may repeat any course in which a grade of C or lower was earned. Credit hours for repeated courses will be counted only once in the number of credit hours earned toward a degree or certificate. A graduate student must repeat any course taken at UCM for which a grade of D or F was earned when the course is a requirement of the graduate degree/certificate program. A D or F grade in an elective course does not have to be repeated but may be. Grades of D and F may not be used to fulfill degree/certificate requirements.

Repeating a course does not remove the original grade from the student's transcript. All courses, including those repeated, are included in the graduate student's cumulative grade point average. Graduate students may petition the Graduate Studies office to have up to any six graduate hours of repeated grades excluded from the grade point average (GPA). Students may petition to apply those six hours of repeated work towards multiple courses or repeats of the same course. A petition may not be submitted until the course under consideration has been repeated and a grade earned. Students who have had the maximum six hours of credit excluded from the GPA may not submit additional petitions regardless of the length of time or number of degrees.

In accordance with federal financial aid regulations, a student may receive federal assistance to repeat a class once for which a passing grade (defined as a "D" or better) has been previously earned. However, there is no limit on the number of times a student may receive federal assistance to repeat a class (if otherwise eligible to do so) for which a grade of "F" has previously been received. Contact Student Financial Services (660-543-8266) for further information.

Auditing Courses

A student may audit a class for no grade and no credit. Acceptable performance, attitude and attendance as determined by the instructor in charge are expected. Regular fees and enrollment procedures are required. Courses taken as an audit must be so designated prior to the final date for changing class schedules as announced in the official calendar. Audited classes do not fulfill requirements for load consideration, nor do they count as part of a student's enrollment status for receiving federal or state financial aid, or VA educational benefits. Courses taken as an audit will not fulfill degree or certificate requirements and are noted on the transcript with a grade of NC (no credit). Students may audit a course for which they have already earned credit. Students may also audit a course and later take the course for credit.

Course Numbers

Courses offered at the graduate level are divided into three categories. In general, the following may be considered guidelines:

4000-level	Beginning Fall 2019 courses numbered at the 4000-level are offered only undergraduate credit. A 4000-level course taken as undergraduate credit may not be applied or repeated as graduate credit. A 4000-level course taken for graduate credit prior to Fall 2019 may count on the graduate program if allowed by the academic program.
5000-level	5000-level courses are offered only for graduate credit.
6000-level	6000-level courses are offered only for graduate credit and require 10 or more semester hours of graduate credit for enrollment.

Undergraduate-level courses cannot be applied to a graduate degree or certificate.

Co-Listed Courses

Co-listed courses are linked 4000-level (undergraduate) and 5000-level (graduate) courses with different course numbers, but same course name, for either undergraduate credit or graduate credit and are offered by the same instructor at the same time, place, and format. While students in both courses have distinct course objectives, assessments, and grading expectations, much of the course content is similar and both classes are functionally combined.

Co-listed courses taken for undergraduate credit may not be used to fulfill graduate degree requirements. Co-listed courses taken for graduate credit may not be used to fulfill undergraduate degree requirements unless the course is part of an accelerated degree program and is identified as such in the undergraduate curriculum. Graduate students should not enroll in a graduate Co-listed course if they have previously completed the undergraduate course unless advised to do so by their graduate program coordinator.

Course Prerequisites

A student is expected to have satisfied prerequisites required of any course in which the student is enrolled. Students without prerequisites should not enroll in these classes and may be dropped from the class if they do enroll.

Course prerequisites may be found within the course descriptions here and in MyCentral when searching for courses. In MyCentral, click on the five-digit course reference number (CRN) of the course and then the course title. Any prerequisites will show at the bottom of the page.

Students who wish to seek enrollment in a course without the prerequisites should contact the School Chairperson over the course for permission and/or enrollment assistance. Only the academic area offering the course may waive prerequisites.

Graduate Enrollment in Undergraduate Courses

A 4000-level course taken as undergraduate credit may not be applied or repeated as graduate credit. Also, a 4000-level course taken as graduate credit (prior to Fall 2019) may not be applied or repeated as undergraduate credit. Undergraduate-level courses cannot be applied to graduate degree or certificate programs.

Date of Catalog for Checking Degree or Certificate Requirements

Students are subject to current administrative, academic and general policies and regulations. The *2025 Graduate Catalog* becomes effective fall semester 2025.

Students may use the *Graduate Catalog* as a basis for degree/certificate requirements issued for any semester including or following the date of his/her first enrollment in the university so long as it is dated not more than eight years prior to the date the degree or certificate is conferred. A student must attempt academic credit at UCM during the semester of the catalog chosen. Students may change catalog term at any time during their enrollment, moving to an earlier or later catalog term, if they attempted hours during that term. Students considering changing catalog term should consult with their program coordinator. UCM follows the catalog agreement described in *Policies and Procedures for the Review of Academic Program Proposals: New Academic Programs, Off-Site Delivery of Existing Programs and Program Changes* (Missouri CBHE, April 1997). However, the university reserves the right to add, change, delete, and interpret policies at any time and to require these be met by those seeking degree/certificate candidacy and/or conferral.

Time Limitation

All courses that satisfy certificate or degree program requirements, including transfer credit, must have been completed during the eight-year period immediately preceding completion of certificate or degree program.

5000/6000-Level Credit

Hours earned as CR credit from work experience/prior learning do not count towards 5000/6000-level credit. Hours earned as CR credit from transfer credit that has been approved as 5000/6000 level may count.

Candidates for an education specialist degree must complete a minimum of six (6) hours must be at the 6000 level.

Hours in Residence

Residence requirements establish a minimum number of credit hours which must be earned from UCM. Online courses and courses which are offered off campus but through UCM do count towards residence hours. Hours earned as SC or CR credit (AP/CLEP/IB/military credits/work experience) do not count towards residence hours. The following rules apply:

- A candidate for any graduate certificate must have earned at least fifty percent of the certificate hours through UCM.
- A candidate for any master's degree may only use up to nine hours of transfer credit towards the degree.
- A candidate for an education specialist degree may only use up to six hours of transfer credit towards the degree.

Degree/Certificate Requirements and Procedures for Graduation

A student becomes eligible for graduation by meeting the following requirements:

- Satisfactorily complete all required background courses and requirements (if applicable)

- Satisfactorily complete all degree/certificate requirements as noted in the Graduate Catalog and on the Central Degree Audit
- Complete all U grades
- Earn a cumulative graduate grade point average of 3.00 or higher on all graduate-level work
- Earn a grade point average of 3.00 on graduate courses that are a part of the degree/certificate program
- Complete and submit research papers, if required, for academic program approval
- Complete and submit a thesis, if required, to the committee for final approval. Submit approved thesis to the Graduate Studies (WDE 1900, 660-543-4729) office for final approval
- Satisfy all school requirements and adhere to all graduate related policies
- Apply for graduation in MyCentral one semester before intended degree/certificate completion (October/November for spring/summer graduates; March/April for fall graduates)

Application for Graduation

An application for a graduate degree or certificate must be submitted to the Registrar's Office using the form in MyCentral. Students should apply for graduation one semester prior to their intended graduation after enrollment has been completed for their last semester (October/November for spring/summer semester graduation and March/April for fall semester graduation). The student's Central Degree Audit should reflect that all remaining requirements are in progress. All curriculum substitutions (if applicable) should be received by the Registrar's Office prior to filing the application for graduation. Applying at this time ensures that students are made aware of any graduation deficiencies prior to the start of their graduation semester. Graduation applications must be submitted even if the student does not intend to participate in the ceremony.

Students who fail to apply or apply for the incorrect term for graduation but are identified as meeting degree requirements by a UCM faculty or staff member will have their degree awarded.

Graduation applications must be received by the Registrar's Office no fewer than six weeks before the date the degree is to be conferred for the student's name to be included in the printed commencement program. Only degree candidate names are included in the program. Certificate candidates are not included.

Degrees and certificates are conferred three times per year: May, August, and December at the end of each semester. Students who complete degree requirements prior to the end of a semester will not have their degrees awarded until the end of the semester. The Registrar's Office may confer degrees and certificates through the following deadlines (or the earliest preceding business day): January 15 (fall semester), May 31 (spring semester), and August 31 (summer semester). Students who fail to apply for graduation or complete all degree/certificate requirements by these dates will have their degree or certificate awarded at the end of the following semester if requirements are completed and an active graduation application is on file with the Registrar's Office.

All students are billed a one-time, non-refundable graduation fee of $50 per graduation semester. Students who earn multiple degrees or certificates in different semesters will be billed each semester. This fee applies to all graduates and is not dependent upon ceremony participation.

UCM offer's commencement ceremonies two times a year for degree candidates: May and December. Commencement ceremonies are for degree candidates only; students earning only a graduate certificate do not participate in the ceremony. All summer degree candidates are invited to participate in the May ceremony if they are enrolled in all remaining requirements. Students who are unable to participate in the ceremony that corresponds with the semester of their graduation due to extenuating circumstances may petition to walk late in a later ceremony up to a calendar year after their graduation date. Students may only apply once to walk late. An additional fee of $50 will be applied to the student's account for each semester after their original ceremony (summer graduates who wish to walk in the December ceremony are not charged this fee). This fee will be applied during the term that they participate in a ceremony.

Questions about applying for graduation or commencement should be directed to the Registrar's Office in WDE 1000, 660-543-4914, or graduation@ucmo.edu.

Participating in a Later Graduate Commencement Ceremony

Students with unusual, extenuating circumstances who are unable to attend the ceremony which corresponds with the semester that their degree is awarded, may submit an Application to Participate in a Later Commencement Ceremony to the Registrar's Office. Ceremony participation may not occur more than one calendar year after a student's actual degree conferral and once approved for a "late walk" students may not change the semester requested. To be considered to "walk late" students must already be approved for graduation during the term that they will be completing degree requirements. Students whose requests are approved will be charged a non-refundable $50 "walk late" fee per semester after the term of degree conferral. This fee is in addition to the regular $50 graduation fee that is applied to all students' accounts.

Policies Applying to Graduate Certificates

The Graduate Certificate at the University of Central Missouri provides additional study beyond the baccalaureate level.

General Policies and Requirements - To receive a graduate certificate, a student must earn a minimum of nine semester hours of graduate credit.

Graduate Certificate and Master's Degrees - A student pursuing a graduate certificate may seek admission to a degree program simultaneously or at a later date. In order to be admitted to a master's degree program, the student must file an application for admission to Graduate Studies and pay the required application fee for a master's degree. This fee will be in addition to the application fee required for a graduate certificate program. Completion of a graduate certificate does not guarantee admission into a graduate degree program.

A student pursuing a graduate degree program may seek to complete a graduate certificate concurrently or at a later date if the graduate degree and certificate were available in the student's initial academic catalog. Coursework satisfactorily completed as part of the degree may be used to satisfy the requirements for the certificate. Coursework satisfactorily completed as part of a certificate may also be used to satisfy requirements for future degrees as long as taken within an 8-year period before degree conferral. The student must also meet all graduate certificate completion requirements.

Transfer Credit - Upon approval by the school, a student may transfer a maximum of 50 percent of the required hours of graduate credit from another institution to a graduate certificate program. See the "Academic Policies" section of this catalog for details on the requirements and procedures for transfer credit.

International Students - Federal regulations require international students to be in a degree program. Admission into a graduate certificate program does not meet student visa requirements and students will not be issued an I-20 for certificate programs alone. However, international students may enroll in a degree program and a certificate program concurrently.

Financial Assistance - Students in certificate programs are not eligible for graduate assistantships and/or scholarships unless they are also accepted into a degree program. Students are not generally eligible for federal financial aid for a certificate program. Eligibility for federal financial aid is determined by the Student Financial Services office.

Graduate Certification Completion Requirements

To complete the requirements for a graduate certificate, a student must:

- Submit an admissions application for a graduate certificate to the Graduate and International Student Services office and pay the required admissions application fee.
- Satisfactorily complete all courses for the specified graduate certificate as outlined in this catalog.
- Earn a cumulative graduate grade point average of 3.00 or higher on all graduate work completed at UCM and earn a 3.00 grade point average in the coursework required of the graduate certificate.
- Complete all U grades.
- Satisfy all school requirements and adhere to all graduate related policies.
- Apply for graduation in MyCentral the semester before intending to complete the certificate requirements. Students earning only a certificate (and not a graduate degree) do not participate in the commencement ceremony.

Policies Applying to Master's Degrees

The Master's degree at the University of Central Missouri provides for additional study beyond the baccalaureate level.

General Policies and Requirements - To receive a Master's degree a student must earn a minimum of 30 credit hours of graduate credit applicable in an approved program.

Transfer Credit - Upon approval, a student may transfer a maximum of nine semester hours of graduate credit from another institution to a UCM master's degree program. To be approved, the course(s) must be applicable toward a graduate degree at the transfer institution that awarded the credit. See the "Academic Policies" section of this catalog for details on the requirements and procedures for transfer credit.

Individualized Study Limitations - Not more than one-half of the credit on an approved Master's degree program may be individualized study. A student is limited to six hours of credit in internship on a Master's degree program. A student is limited to a maximum of six semester hours of credit in thesis or in an individual research project on a master's degree program.

Two Master's Degrees - A student may earn more than one Master's degree at UCM either simultaneously or subsequently. Up to six hours of graduate credit may overlap with program coordinator's consent. No research paper or thesis from the first degree can be used toward the second. A second master's degree must fulfill all degree requirements. In the instance where additional required courses (beyond the 6 allowed to overlap) in the second program were included in the first program, the program coordinator of the second program will determine appropriate substitute course work.

Students may also concurrently pursue two different options under one degree program. Students may not earn a second option under the same degree after the degree has been awarded.

Master's Degrees and Graduate Certificates - A student pursuing a graduate degree program may seek to complete a graduate certificate concurrently or at a later date if the graduate degree and certificate were available in the student's initial academic catalog. Coursework satisfactorily completed as part of the degree may be used to satisfy the requirements for the certificate. Coursework satisfactorily completed as part of a certificate may also be used to satisfy requirements for future degrees as long as taken within an 8-year period before degree conferral. The student must also meet all graduate certificate completion requirements.

Policies Applying to Accelerated Bachelor's/Master's Degrees

Accelerated Bachelor's/Master's degree programs at the University of Central Missouri provide well-prepared advanced students the opportunity to accelerate the earning of two degrees. Students may earn undergraduate credit for completion of the equivalent graduate course.

The program will begin after a student is admitted. Students can enroll in graduate courses only after the junior year (90 earned hours).

A minimum of 30 graduate credit hours must be earned to complete the master's degree while the undergraduate program will require a minimum of 120 credit hours of both undergraduate and graduate courses.

Depending on the program, up to 12 hours of graduate coursework may be taken during the senior year and counted to meet both the Bachelor's and Master's degree requirements. Students complete the remaining graduate coursework in the fifth year. Students may not enroll in additional graduate courses until the undergraduate degree is completed.

Students can take a maximum of 6 hours of graduate credit per semester during the senior year, and 3 hours over the summer if available, with no more than 16 total credit hours of both undergraduate and graduate coursework in a single semester.

Upon completion of the undergraduate portion, the student will then be classified as a graduate student for financial purposes as well. Students are awarded a Bachelor's degree as soon as those degree requirements are completed and are then admitted as candidates for the Master's degree. Students are awarded the master's degree when all graduate requirements are completed. If a student withdraws from the university and stops enrolling in coursework following completion of the Bachelor's degree and later wants to return, they will have to apply to the regular graduate program and no prior coursework may be applied.

Please note: enrollment may affect eligibility for financial aid and scholarships, please contact the Student Financial Services office at 660-543-8266 if you have any questions. For the purposes of financial aid and scholarships, students are considered to be at the undergraduate level until the Bachelor's degree is awarded. Students will be considered graduate level after the Bachelor's degree is awarded and the student is only taking graduate level courses. Students are eligible for graduate assistantships after receiving a Bachelor's degree.

Policies Applying to Education Specialist Degrees

The Education Specialist degree at the University of Central Missouri provides for additional graduate-level study beyond the master's degree. Education Specialist degree programs are offered in two broad curricular areas: Administration and Human Services. Within these broad areas the programs are flexible, involving discipline specializations. Individual programs must be developed with school approval.

General Policies and Requirements - A minimum of six of these hours must be at the 6000 level.

Transfer Credit - Upon approval, a student may transfer a maximum of six hours of graduate credit from another regionally accredited institution to a UCM Education Specialist degree program. See the "Academic Policies" section of this catalog for details on the requirements and procedures for transfer credit.

Prior Courses - A student pursuing a Master's degree may enroll in graduate courses that are not part of the approved Master's degree program and which could, at a later time, be presented for use towards an Education Specialist degree program providing (1) that the student has applied for and been accepted into an Education Specialist degree program contingent upon the completion of a master's degree (2) that such courses were taken while the student was completing the last 12 hours of the master's degree program and (3) courses must be within 8 year eligibility.

Individualized Study Limitation - No more than 18 semester hours on an approved Education Specialist degree program may be individualized study. A student is limited to six credit hours of internship on an Education Specialist degree program. A student is limited to a maximum of six credit hours of thesis or individual research project on an Education Specialist degree program.

Graduate Program Advisory Committee - When a student is accepted into a program, the graduate coordinator will appoint a faculty member as chairperson of the student's graduate program committee and two additional graduate faculty members to serve on the student's advisory committee. The student shall seek the advice of the program advisor about enrollment, program planning (including any changes), qualifying examinations, using the Central Degree Audit, research studies and/or thesis, comprehensive examinations, and eligibility for graduation. In all situations, the advisor shall work closely with other members of the advisory committee.

Two Education Specialist Degrees - A student may earn more than one Education Specialist degree at UCM either simultaneously or subsequently. Up to six hours of graduate credit may overlap with program coordinator's consent. No research paper or thesis from the first degree can be used toward the second. A second Education Specialist degree must fulfill all degree requirements. In the instance where additional required courses (beyond the 6 allowed to overlap) in the second program were included in the first program, the program coordinator of the second program

will determine appropriate substitute course work. An approved program must include a minimum of six hours at the 6000 level.

Students may also concurrently pursue two different options under one degree program. Students may not earn a second option under the same degree after a degree has been awarded.

Cooperative Doctoral Degrees

UCM participates in a cooperative doctoral program for a Ph.D. in Technology Management. This degree is not conferred by UCM, but students are invited to participate in UCM's commencement ceremony. In accordance with federal rules, any federal financial aid a doctoral student may be eligible to receive is processed and disbursed by the school (i.e. Indiana State University) from which the doctoral degree will be granted.

Doctor of Philosophy in Technology Management - UCM is a charter member of a five-university consortium offering a Ph.D. in Technology Management, which is conferred by Indiana State University. This degree takes advantage of distance education technology with courses available via online, telecommunication, and other media. Selected courses are also available on the respective campuses.

The doctoral program is designed to provide students with opportunities to increase their depth and breadth of knowledge in technological studies. Students must complete a minimum of 57-60 semester hours of graduate study beyond the Master's degree, with a majority of the coursework at the 6000-level or higher.

The program includes 24-30 credit hours in an area of technical specialization. Admission is through Indiana State University. The Graduate Record Exam (GRE) is required.

For more information, contact the School of Technology, call 660-543-4438 or email Dr. Sue Rodchua at rodchua@ucmo.edu or visit www.indstate.edu/technology/consortphd.

Teacher Certification

UCM, accredited by (CAEP) the Council for the Accreditation of Education Preparation, offers both courses and programs at the graduate-level that meet the requirements for certain teaching certificates issued by the Missouri Department of Elementary and Secondary Education. All students seeking teacher certification should check specific program requirements listed in this catalog and with their graduate program advisor.

Authority has been granted to the university by the State Board of Education in Missouri to recommend students for certification who are qualified to teach or serve as administrators in the public schools of Missouri as well as in other states. Any student seeking initial certification or additional certification as a result of completing graduate courses or a graduate degree should contact the Office of Clinical Services and Certification, University of Central Missouri in Lovinger 2170, Warrensburg, MO 64093 or at 660-543-8441 or certification@ucmo.edu.

NOTE: Individuals enrolling in coursework to complete specific DESE certification requirements who are not also in a degree program, must successfully complete 12 credit hours at UCM to be eligible to receive an institutional recommendation. The specific courses will be determined by program faculty in conjunction with UCM's Certification Officer.

Philosophy of Academic Standards

To maintain standards which foster an atmosphere of academic excellence:

Central Missouri retains students who, through periodic university-administered assessment and evaluation, meet or exceed established university academic standards.

Central Missouri grants degrees and/or certificates to students who fulfill prescribed program requirements and meet or exceed the minimum academic standards established by the university and the state of Missouri.

Central Missouri assesses former students to determine to what extent the university experience has helped them attain an intellectual orientation by which they can develop, throughout their lifetimes, the capacity for self-improvement, career achievement, and responsible living in a free society.

Student Responsibility

Central Missouri, through action of the faculty, administration, and Board of Governors, establishes and maintains requirements for its various degrees and certificates. These requirements must be completed before a degree or certificate is granted. The staff of the university will assist students in understanding and meeting these requirements, but the individual student is responsible for fulfilling them. Therefore, it is important for each student to be familiar with the requirements pertaining to the degree or certificate being sought and to remain informed throughout the period of enrollment. The faculty advisors, program coordinators, and Registrar's Office can be of assistance in this process.

The approved method of communication between the university and students is through the use of the campus email system. Each student is assigned a campus email address (Example: abc12340@ucmo.edu). Students are responsible for checking this email account regularly. Many offices no longer send paper mailings. Information regarding deadlines, grades, holds, graduation status, and academic standing are not sent by paper mail.

In addition to email, students are responsible for reading messages posted to their account in MyCentral in the form of both Campus Announcements and Personal Announcements. Campus Announcements are general notices sent to all students on campus and may not apply to each student. Personal Announcements are directed towards a particular student or a small group of students.

Graduate Student Responsibility

Admission to Graduate Studies and graduate programs at UCM presumes a degree of initiative on the part of the graduate student. Graduate students assume responsibility for engaging in intellectual activities at the graduate level as well as responsibility for complying with all policies and procedures, as set forth in this catalog and in school regulations in earning an advanced degree.

Requirements will not be waived, and exceptions will not be granted because of ignorance of policies, requirements, or procedures for graduate study at UCM. Graduate advisors, the faculty, and Graduate Studies staff assist students; however, the responsibility to adhere to the policies and procedures as stated in this catalog lies with the student.

Academic Honesty and Plagiarism

Academic honesty is a prerequisite for academic achievement; all members of the academic community are expected to act in accordance with this principle. The university recognizes plagiarism as a serious academic offense. The university's policy on academic honesty may be found in the *UCM Student Handbook*. Students must be aware that the consequences of violating standards of academic honesty are extremely serious and costly and may result in the

loss of academic and career opportunities. Students found to have committed violations against academic honesty face removal from university classes and degree/certificate programs, and/or suspension from the university.

Family Educational Rights and Privacy Act (FERPA)

Central Missouri adheres to the federal Family Educational Rights and Privacy Act (FERPA). Additional information can be found on the Registrar's Office FERPA webpage.

UCM faculty and staff, under the rules of FERPA, will not release academic information about a student to anyone unless written permission is granted from the student.

This includes but is not limited to:

- Grades (student progress reports or final grades, grades on assignments/tests)
- Grade point averages (cumulative, UCM, major, minor)
- Academic Transcripts
- Central Degree Audit Reports
- Course schedules (including classes enrolled in, number of credit hours enrolled in)
- Course assignments and tests

The above items are never released to agencies or persons outside the university without the written consent of the student. Students who wish to give consent for the release of their academic information may fill out an Authorization to Release Educational Records form with the Office of the Registrar in the Ward Edwards Building, Suite 1000 (660-543-4900, registrar@ucmo.edu).

Directory information is not generally considered harmful or an invasion of privacy if disclosed. The university does not sell student directory information; however, unless a student requests in writing to the contrary, federal law permits the university to release the following directory information to the public without the student's consent:

- Name
- Mailing and permanent address
- Telephone numbers
- Email addresses
- Photo
- Date and place of birth
- County, state, or U.S. territory from which the student originally enrolled
- Major field of study
- College
- Class (junior, senior, etc.) (but not particular number of hours earned)
- Enrollment status (full-time, part-time, etc.) (but not particular number of hours or classes enrolled in)
- Participation in officially recognized activities and sports
- Weight and height of members of athletic teams
- Dates of attendance and anticipated date of graduation
- Degrees/certificates and awards received
- The most recent previous educational agency or institution attended by the student
- Honors information (graduation with honors, not GPA or grades or Honors College membership)

Directory information does not include:

- Social security numbers
- Ethnicity/race/nationality/religion

- Gender
- Parent name and address

Students who wish to suppress public access to their directory information can do so by filling out a *Request to Suppress Directory Information* form and submitting it to the Office of the Registrar in the Ward Edwards Building, Suite 1000. Doing this will remove the student from the online UCM directory which displays only student name and campus e-mail address. Suppressing public access to directory information also means that student names will not be released for Dean's List designations (for undergraduate students only) in local newspapers, inclusion in the printed Commencement Program and online graduation lists, or inclusion in lists requested for club participation, employment, or awards.

GDPR (General Data Protection Regulation)

The General Data Protection Regulation (GDPR) is a legal framework that sets guidelines for the collection and processing of personal information of individuals within the European Union (EU). The EU put these guidelines into effect on May 25, 2018 to replace and enhance previous legislation that regulated privacy. The GDPR affords individuals certain rights as to how their data is used and processed, and may give them rights to access, correct, or delete their data. The GDPR may apply to some personal information held by the University because, in some circumstances, we engage in activities that collect or process the personal data of individuals residing in the EU, such as EU resident applicants and students, or students studying abroad in the EU.

All UCM students will review the GDPR Consent Form prior to enrollment in their next semester. All UCM faculty and staff will review this information every fall semester in MyCentral.

Learn more about the GDPR on the European Commission website.

A list of the Countries of the European Union (EU)

Amendment of Education Records

1. If a student believes their educational records contain information that is inaccurate, misleading, or in violation of the student's rights of privacy, he or she may ask the university to amend the record by contacting the University Registrar.
2. The university shall decide whether to amend the record as requested within a reasonable time after the request is received.
3. If the university decides not to amend the record as requested, the University Registrar shall inform the student of its decision and of his or her right to a hearing under The Family Educational Rights and Privacy Act.

NOTE: The amendment of education records is NOT the process used for a grade appeal. Please refer to the current *Academic Appeal Procedure* in the *UCM Student Handbook* for information regarding this procedure.

Application for Exception Procedure

All requests for an exception to graduate academic university policies and procedures will be processed through the Office of the Registrar, the Graduate Studies office, and/or the Graduate and International Student Services office. Please refer to the current *Exception Procedure* in the *UCM Student Handbook* for information regarding this procedure.

Vehicles on Campus

Because parking space is limited, the university asks that students who can arrange other transportation not bring vehicles to campus. To park in student lots, students must buy parking permits at Parking Services (306 Broad Street). However, parking permits are limited by the number of parking spaces and may not be available for purchase. Accessible parking permits are available at the standard student rate when medical verification is presented to Parking Services (306 Broad Street) or Accessibility Services (Elliott Student Union 224).

Students may get complete information on parking and operating motor vehicles on campus by picking up a copy of *The University of Central Missouri Parking and Traffic Regulations* at Parking Services, or contacting Parking Services toll free at 800-873-8577.

Tobacco

UCM is a tobacco-free campus to promote the health of the university community, to preserve and protect university property, and to provide a respectful, clean, and safe environment to study, work, and learn. This policy encompasses all tobacco products (traditional cigarettes, e-cigarettes, pipes, cigars, hookah, water pipes, and all other forms of smoke-generating products, chew snus, snuff, etc.) or any nicotine delivery method not approved by the U.S. Food and Drug Administration as nicotine replacement therapy.

Tobacco use is prohibited in all university-owned, leased, or controlled buildings and residences. Tobacco use is also prohibited in all outdoor areas of UCM campus; however, tobacco use is allowed in personal vehicles, at the Keth Memorial Golf Course, and in designated parking lots during designated events such as commencement, sporting or performing arts events. Students, faculty, and employees will be provided, upon request, assistance with identifying tobacco cessation resources, including free information and access to low-cost referral programs, through appropriate campus resources determined by UCM.

University of Central Missouri Drug-Free Schools and Workplace Statement

The University has established and is committed to enforcing clear policies that promote an educational environment free from the abuse of alcohol and other substances.

The University complies with federal regulations that require an alcohol and drug testing program for safety sensitive positions. The University expects students, employees, visitors, and organizations to adhere to state statutes prohibiting individuals under the age of 21 from drinking or having alcohol in their possession. Drinking or possession of alcoholic beverages is prohibited in University buildings and residence halls except in those places where an explicit exception has been granted.

The University also expects students, employees, and visitors to comply with laws that govern the possession, use, distribution, and sale of alcohol and illicit drugs. Anyone found to be in violation of such laws shall be subject to all applicable criminal penalties, as well as disciplinary action in accordance with applicable policies of the University of Central Missouri.

Students under the age of 21 are reminded it is unlawful to use fictitious identification for purchasing alcohol. Health risks associated with the use of illicit drugs and alcohol include, but are not limited to, addiction, accidents as a result of impaired judgment and ability, overdose, damage to internal organs or a developing fetus, and unpredictable or violent behavior. Information on referral and assistance with alcohol or drug-related problems is available from Counseling Center (660-543-4060), University Health Center (660-543-4770), or Human Resources (660-543-4255).

Housing

On-Campus Housing

The University of Central Missouri provides a variety of on-campus housing opportunities. Living on campus is a great choice and an integral part of the complete college experience. With a broad spectrum of opportunities designed to complement your academic endeavors, you'll be part of a community where you can grow and experience life independently yet have support to help you excel on campus.

Arranging for Housing

Contact the Office of University Housing, L23 Ellis Complex, or call 660-543-4515 for information or questions. Our website contains lots of relevant information including housing options and services: ucmo.edu/housing. Students submit a housing agreement or apartment application via MyCentral. Information on how to do so is located at ucmo.edu/housingfaq.

Residence hall assignments are made according to the agreement date. A deposit of $100 must accompany the application. Apartments will require an additional deposit of $100 or $200 (depending on location) prior to occupancy. This deposit may be forfeited for late cancellation, damage to university property, outstanding account or other agreement violations.

Students who need housing accommodations for any other disability-related reason should email the Office of Accessibility Services at access@ucmo.edu or visit ucmo.edu/access.

Residence Halls

Residence halls are located on the east and west sides of campus. Students may choose from a variety of housing options. More information on residence hall options can be found at ucmo.edu/residencehallliving.

Students with 30 or more UCM-accepted credit hours or those over 21 years old may live in upper-class housing. Residence hall accommodations offer the student convenience, opportunities for involvement, and a variety of choices. Residence hall agreements are for a full academic year. Single rooms are limited and available at an additional cost.

In the residence halls, students in each pair (suite) of rooms share a private bath. Each student room has wired and wireless Internet access. All rooms are furnished with two desks, two twin-XL twin beds/mattresses, two chairs, blinds, a chest of drawers and a mirror. Residents may bring additional items to make their rooms more home-like. Our packing list can be found at ucmo.edu/movein. Residents have ready access to washers and dryers with no additional cost. Mail is delivered regularly to the main desk at each residence hall. Lounge areas and recreation facilities are open to all residents. Residence hall study areas provide a quiet place for reading and study.

The university tries to honor student preferences in housing assignments. Room changes will be permitted beginning on designated dates during the first part of each semester. Housing agreements for students who do not check-in are canceled after 5 p.m. on the first day of classes unless students have made arrangements to arrive late.

Graduate/Family Housing Apartments

Furnished apartments are available for upper-class students. Students classified as Graduate level students are eligible for all university apartments. A University apartment application along with a $100 deposit ($50 is refundable) is required to be placed on the waiting list. Apartments are assigned off the waiting lists. University apartment agreements are for the academic year. To reside in an apartment over the summer, a student must either be enrolled for summer classes or pre-enrolled for the subsequent fall semester. The rental rate for the furnished apartments includes all utilities, Internet (including wireless), and laundry facilities within the building. Find out more information at ucmo.edu/apartmentliving.

Unfurnished apartments are available for students who are married, parents with children living with them full time, a graduate student, or an undergraduate student who is 20 years of age or 60 credit hours. A university apartment application along with a $100 deposit ($50 is refundable) is required to be placed on the waiting list and all apartments are assigned off the waiting lists. University apartment agreements are for the academic year. To reside in an apartment over the summer, a student must either be enrolled for summer classes or pre-enrolled for the subsequent fall semester. The rental rate for the unfurnished apartments includes water, sewer, trash, Internet (including wireless), and laundry facilities in the complex area. Students are responsible for gas and electric service. Find out more information at ucmo.edu/apartmentliving.

Meals

Students may choose from a variety of meal plan options. Full-meal service is available daily. The Elliott Union provides additional on-campus dining retail options. The food service accommodates students with special dietary needs. Learn more about Sodexo at ucmo.sodexomyway.com

Insurance and Safety

The Department of Public Safety and the Office of University Housing work together to provide a safe campus environment. However, the university is not responsible for loss of, or damage to, personal property. Parents and/or students are urged to arrange privately for insurance coverage of personal property.

Social Opportunities

A college education is more than what happens in the classroom. At UCM, students are encouraged to participate in a variety of activities outside of the classroom that create a well-rounded educational experience. Getting involved on campus gives students the opportunity to develop interpersonal and leadership skills that will serve them throughout their lives.

Student Activities

From participating in Student Activities events to membership in a fraternity or sorority, UCM has it all! There are many things for students to do on campus including dances, plays, films, concerts, bowling, and being involved in clubs, intramural sports and student government. Taking part in social, cultural and athletic events provides students with many opportunities to learn about themselves, other people and the world in which they live.

Student Organizations

More than 200 registered student organizations exist at Central Missouri. Students can affiliate with academic honoraries, school organizations, religious organizations, sports teams, and special interest groups. Research indicates a positive correlation between involvement and student academic success; one such experience is involvement in student organizations. Participation in student organizations offers a means to apply classroom learning, explore career choices, gain leadership experience and make valuable contacts.

For information, visit the Office of Student Activities, Elliott Student Union 217. To see a list of organizations and descriptions go to the Office of Student Activities Web page ucmo.edu/osa.

Intercollegiate Athletics and Organized Sports

Central Missouri offers three general classes of organized activities in athletics and sports: intercollegiate athletics, intramural sports, and sports clubs.

Intercollegiate Athletics
Central Missouri belongs to the 14-member Mid-America Intercollegiate Athletics Association (MIAA) and the National Collegiate Athletic Association (NCAA), Division II.

Varsity sports for women are basketball, bowling, cross-country, golf, indoor track, outdoor track, softball, soccer, and volleyball. For men, they are baseball, basketball, cross-country, football, golf, indoor track, outdoor track, and wrestling. (Visit the Office of Intercollegiate Athletics, Jerry M. Hughes Athletics Center, Room 203, for information.)

The Athletic Committee, composed of faculty and students from all parts of the university, advises the intercollegiate athletics program.

Intramural Sports
An extensive intramural program gives university students, faculty, and staff many opportunities to take part in competitive and non-competitive activities at low cost. Team and individual activities are available for men, women, and co-recreational groups. Among these are badminton, basketball, billiards, bowling, golf, racquetball, rifle and pistol shooting, soccer, softball, swimming, table tennis, tennis, touch football, track, volleyball, wrestling, and many others. (Visit the Office of Student Activities, Student Recreation and Wellness Center or call 660-543-8595 for information.)

Sports Clubs
Sports clubs give students an opportunity to participate in sports which are not included in the university's

intercollegiate program. Club activities may be intramural (all participants being Central Missouri students) or extramural (competition with teams from outside the university). The university funds club sports but assumes no liability for them. (See the Office of Student Activities, Student Recreation and Wellness Center in Garrison or call 660-543-8595 for information.)

Volunteer Services

Volunteer Services is available for students to match their skills and interests with the community. It is a way for students to utilize their skills and talents to help others give back to the community. There are many benefits to becoming involved in volunteer services. Students may utilize the volunteer services office to explore ways to continue their service work from past experiences. They will participate in service areas that are related to academic topics. Students will enhance their leadership skills by participating in service which offers them a sense of accomplishment. Some students will become involved in volunteer services when student organizations seek involvement in service projects within the community. Volunteer Services also promotes a responsibility to give back to society and helps students achieve a lifetime commitment to service and helping others. For more information about Volunteer Services visit Elliott Union 217 or ucmo.edu/volunteer.

Recreation Facilities

Jerry M. Hughes Athletics Center
The Jerry M. Hughes Athletics Center located just west of Audrey J. Walton Stadium, seats up to 10,000 in its arena and provides recreational facilities for students, faculty, and the community. Its basketball area accommodates four courts, five volleyball courts, and a six-lane, 220-yard indoor track. It also has three indoor handball/racquetball courts, a weight room, the Roger Denker Wresting Facility, conference rooms, and an activity area.

Pertle Springs
Historic Pertle Springs Park is located one mile south of the main UCM campus on South Holden Street. Pertle Springs is a 300-acre recreational, instructional, and biological research area for UCM students and the community to enjoy. Keth Memorial Golf Course and the Audrey J. Walton Clubhouse are both located in the park. Housed within the Walton Clubhouse is a full-service golf shop and Traditions Restaurant, UCM's newest banquet and dining facility. The golf course is open daily to the general public and features 18 holes of golf, multiple practice greens, and a driving range with indoor hitting facilities. Student rates make Keth Memorial Golf Course a great place to relax and enjoy a round of golf with friends! Other popular activities on the wooded grounds include biking, fishing, hiking, and picnicking, as well as use of the UCM Observatory. Pertle Springs is open year round.

The Union Bowling Center
The Union Bowling Center (UBC) is located in the Elliott Student Union. The recently updated 10-lane facility hosts many campus and off-campus groups. The UBC is home to the Jennies Bowling Team and the Men's Bowling Club. The center is open daily, approximately 360 days of the year. Special event reservations are welcome and more information is available by calling 660-543-4375. The UBC also rents inflatable games and casino equipment to interested student organizations. Cru5h™ is located next to the UBC and is open for breakfast and lunch, and serves as the late night dining option on campus.

Recreational Programs
At UCM, we work hard and play hard. Our recreational programs have something to meet everyone's needs. Intramural sports offer a wide range of individual and team activities including flag football, softball, volleyball, basketball, and soccer. Contact the Intramural Office at 660-543-8643, or visit the Student Recreation and Wellness Center.

Shooting Range
The UCM Shooting Range is located east of Warrensburg at the Agriculture and Conservation Education Center at the Prussing Farm. The facility includes a 3,000-square-foot learning center for educational activities and social functions, three trap shooting ranges, and one skeet range. The UCM Shooting Range is open to students, faculty, and staff, as well as the general public. Contact the Student Recreation and Wellness Center (660-543-8643) for information about the shooting range.

Student Recreation and Wellness Center
The Student Recreation and Wellness Center has many opportunities for students, alumni, faculty, staff, and retirees, to recreate. The 69,000-square-foot facility houses an indoor track, six basketball courts, three weight equipment areas, three dance/fitness rooms, and a climbing wall. Beverage and food items are available at Einstein Bros Bagels®.

Other Facilities
Other campus facilities include eight acres of recreational and practice fields west of the Audrey J. Walton Stadium, a 400-meter track in the football stadium, a play field southeast of Diemer Hall, and the South Recreational Complex.

Five city parks are located within walking distance of campus. Knob Noster State Park, located 10 miles east of UCM, offers picnic areas, family/group camping grounds, hiking trails, and fishing/kayaking opportunities.

Services and Facilities

Academic Advisement

Academic advising is critical to the success, satisfaction, retention and graduation of University of Central Missouri students. Academic advising is an ongoing interactive process involving the students, faculty advisors, and the institution. The primary goal of academic advising is to assist students in the development and accomplishment of meaningful educational plans that are compatible with their life goals. Faculty advisors help students plan career opportunities, determine degree and/or certificate programs, select courses and coordinate their academic progress.

Students can find the name of their assigned faculty advisor (and other advisors) in MyCentral and on the Central Degree Audit. International students are also assigned an international advisor from the International Student Services office.

Accessibility Services (ADA/504)

Elliott Student Union 224; 660-543-4421; fax 660-543-4724
access@ucmo.edu; ucmo.edu/access

The Office of Accessibility Services (OAS) provides students and visitors with disabilities with the services necessary to achieve equal opportunities while at UCM. At the student's request, OAS will work with faculty, Housing, Facilities and other campus programs to provide opportunities for persons with disabilities. Examples of the disabilities included are learning disabilities, attention deficit disorder, orthopedic and mobility issues, mental health, vision, hearing and health issues such as migraines, seizures, HIV, IBS, and diabetes.

Students seeking accommodations will need to provide OAS with recent professional documentation of the disability. The documentation will need to be on a professional letterhead and should provide the diagnosis, the nature of the impairment, if it is permanent or long term, and how it affects the student. Accommodations depend upon the disability and documentation, and may include testing services, text in alternative format, sign language interpreters, or other services. Each semester students must contact OAS if they want to utilize accommodations and have instructors notified of accommodations for the new semester. For more information see the OAS Web site or contact OAS.

Airport

Max B. Swisher Skyhaven Airport; 660-543-4921
ucmo.edu/skyhaven

UCM owns and operates the Max B. Swisher Skyhaven Airport, located three miles west of Warrensburg on Highway 50. It includes 402 acres of land, a 4,200-foot lighted runway with a full-length parallel taxiway; a 2,800-foot lighted runway; and buildings for administration, maintenance, and other uses. The airport is a teaching laboratory for the university and a community airport serving the Warrensburg area.

Assessment

ADM 104; 660-543-8855
ucmo.edu/assessment

Assessment is an integral part of the continuous process of learning and development, with the purpose of enhancing a student's total university experience. Assessment uses well-defined outcomes and criteria, employing multiple

measures. All students are required to participate in UCM's assessment program. This assessment may include periodic measurements of student intellectual and personal growth through examinations/assessments in general education, intellectual skills or the major field of study, and various opinion surveys. A description of the major goals and components of Central Missouri's Quality Improvement Program (CQIP) can be found at ucmo.edu/testingservices.

Major Field Assessment
Each academic program establishes the conditions and requirements for assessment of its majors. All students are encouraged to contact faculty within their program to determine the policy, practice, and standards for assessment in their major field.

Surveys
In addition to standardized and locally developed assessments in general education and the major field, Central Missouri utilizes a variety of opinion surveys designed to measure student perceptions of their experiences at UCM, both academic and non-academic. The information derived from assessment activities is used to facilitate student learning and development, to promote faculty and staff growth and to improve the quality of academic and non-academic programs, services and facilities.

Career and Life Design Center

Ward Edwards 1200; 660-543-4985
careers@ucmo.edu; ucmo.edu/career

The Career and Life Design Center provides assistance to students in developing a highly personalized career development plan. Each academic program has a designated Career Development Coordinator who is an expert on the job market and career options for that particular field of study. They are also highly skilled in coaching students to prepare them for the pursuit of their chosen profession.

Services in the Career and Life Design Center include:

- Individualized Career Development Coaching
- Resume & Cover Letter Assistance
- Practice Interviewing
- Job Postings & Resume Referrals
- Student Employment Assistance
- Internship & Job Search Strategy Development
- Career Workshops, Events, Expos, & other on-campus Recruiting Opportunities
- Career Readiness Course

The Career and Life Deign Center services are optional, but students are encouraged to use them for exploring and selecting major and career options, and for developing their personal career development plan. *Please note that no course, program, certificate, and/or degree available at the UCM carries with it a promise, real or implied, of immediate or eventual employment within the specific areas covered, or in any other area. Although a comprehensive set of services is offered through the Career and Life Design Center, taking advantage of these opportunities and gaining employment remain the student's responsibility.*

Center for Global Education

Elliott Student Union 302; 660-543-4195; fax 660-543-4201

The Center for Global Education consists of two areas, Study Abroad and the English Language Institute.

Study Abroad

https://ucmo.edu/studyabroad

UCM students who wish to study abroad and gain credit on short or long-term programs are encouraged to visit the Center for Global Education and inquire about UCM Study Abroad programs. Placement opportunities exist in institutions in more than 65 countries. Students must work through the Study Abroad office to ensure credit transfer and apply financial aid to their study abroad experiences.

English Language Institute

https://ucmo.edu/eli

UCM's English Language Institute (ELI) offers an academic Intensive English Program and professional language training and short-term cultural programming for students at the University of Central Missouri. It is our goal to provide English language learners the skills they need to be successful at the university, in their careers, or in specialized language programs. The ELI is housed together with the Center for Global Education in Elliott Student Union 302. ELI is a unit of the School of English and Philosophy.

Center for Teaching and Learning

James C. Kirkpatrick Library 1340; 660-543-8528
http://library.ucmo.edu/ctl Email: mccormick@ucmo.edu
Facebook: UCMCTL; Twitter: @UCM_CTL

The Center for Teaching and Learning (CTL) advances the University's mission by encouraging and supporting the advancement of instruction and the scholarship of teaching and learning. Professional development for faculty is provided in many ways - both online and in-person. CTL seeks to integrate sound teaching practices with current instructional technology to foster faculty growth and excellence.

Central Regional Professional Development Center

232 Foster-Knox; 800-762-4146
centralrpdc@ucmo.edu; ucmo.edu/rpdc

The CRPDC is the primary operating agency of the Central Professional Development Consortium. The center's mission is to provide information and resources in proven instructional and administrative practices which promote quality instruction in the classroom, overall school improvement and school-linked services for children and youth and their families. The center offers professional development opportunities, including inservices and workshops, to practicing teachers and administrators designed to address needs in all areas, particularly in science, math, technology, reading, and writing.

Chapel

The Alumni Memorial Chapel, funded by donations from individuals and organizations, was built in 1956 in memory of Central Missouri students who served in World War II and the Korean War. The chapel seats 200 in the sanctuary, has a meeting room for 20 people, and contains a complete kitchen/dining area in the undercroft. Private gifts funded the chapel's refurbishment and establishment of the Earl A. Webb Sr. Study. Another gift funded the attached Danforth Chapel, which contains six kneeling benches and is open to the public during the day. In the fall of 1994, a bronze sculpture titled "Guardian," which is a memorial to all men and women who have served the country in armed services, was placed near the entrance of the Danforth Chapel. The chapel is used by UCM students as a meeting place for social and religious organizations, choir practice, initiation ceremonies, group testing, parties, and weddings. Students also use it for individual or group meditation and communion.

Child Care Centers

The university supports one childcare center on campus. The center is in the back of the Foster-Knox Apartment Building and is licensed with the Missouri Department of Health and Senior Services.

The Child Care Center has adopted Creative Curriculum when planning activities and experiences for the children. Daily care routines are planned according to the age and development of the children within the classrooms.

The childcare center provides care for children six weeks to 10 years old. Enrollment is determined from a waiting list. To place a child on a waiting list, schedule a tour, or to learn more about the Campus Child Care Center call 660-543-4605 for Foster-Knox.

Counseling Center

660-543-4060
ucmo.edu/cc

The Counseling Center is committed to supporting UCM's mission by helping students reach their full potential. Students who are experiencing distress or other difficulties that are interfering with functioning may make an appointment to speak with one of the clinicians.

We provide an initial consultation where we hear about your concerns and offer recommendations. These may include brief individual, couple, or group counseling; in-person and online Mental Fitness workshops; or online resources. If our services are not appropriate to your needs, we will direct you to services that are.

See the Counseling Center website for more information and resources, including Mental Fitness Online (on-demand workshops on popular topics), Ask.Listen.Refer. (suicide prevention training), and BodyU (a 5-minute survey to understand your behaviors and self-image).

The Counseling Center is dedicated to providing a safe atmosphere for all students regardless of age, sex, gender identity, gender expression, sexual orientation, race, color, national origin, religion, marital status, socioeconomic background, veteran status, or disability.

What to do if you believe another student is in danger of attempting suicide:

If you think someone is in immediate danger of attempting suicide, call Public Safety (911 or 660-543-4123).

Or if you believe someone you know may possibly be suicidal, talk to one of the following:

Dr. Corey Bowman, Associate Vice President of Student Experience and Engagement, 660-543-4114 or Administration Building, Suite 214.
Counseling Center at 660-543-4060.
The UCM Crisis & Counseling Support Line: 660-543-8008 (available 24 hours a day).
Public Safety at 660-543-4123 or 306 Broad Street (available 24 hours a day).
A readily available university employee, such as Housing staff, a faculty member, student organization advisor, or any other University employee with whom you are familiar.
The national suicide prevention lifeline is available 24 hours daily to anyone in suicidal crisis or emotional distress. Call or Text 988, or Chat at 988lifeline.org.

For the national Crisis Text Line, text HOME to 741741.

Criminal Justice Institute

660-543-4950; fax 660-543-8306
cjinst@ucmo.edu; School of Public Services

The Criminal Justice Institute, housed within the Department of Criminal Justice and Criminology, strives to bridge the gap between policy makers, academia, and the field of criminal justice on issues and concerns to the criminal justice profession and to influence criminal justice policy and practice by providing research, information, and assistance. The Institute accomplishes this through delivering information to the criminal justice community in the form of accurate, affordable, and pertinent training. Students benefit from the Institute's work through unique educational opportunities that improve the quality of their degree. By interacting with experts, students become effective, professional members of the criminal justice career field. Events sponsored by the Criminal Justice Institute include an on-campus symposium with varying topics, from police worn body cameras to raising awareness about sexual assault, to issues in juvenile justice, as well as tailored training opportunities, such as Warden Peer Training or Police Liability as requested by local agencies.

Dining Services

660-543-4012
ucmo.sodexomyway.com
Facebook: Sodexo at University of Central Missouri
Twitter and Instagram: @DiningUCM

Dining by Sodexo is committed to providing an enjoyable, service-focused, nutritious, and innovative dining experience that meets the ever-changing needs of the UCM campus community. Sodexo strives to provide customers with great menus, quality, and the service they deserve. Sodexo offers both resident and retail dining.

Keep up to date with all Dining by Sodexo - menus, nutrition information, special events, and notices by following us on social media or our mobile friendly website (see above).

Resident Dining. On the UCM campus we have two Resident Dining Centers, Westside Market in Todd Hall, and Ellis Dining Center, which both feature an all-you-can-eat format. Both Dining Centers accept meal plans, Dining Dollars, Central Cash, credit and debit cards, and cash.

Both Resident Dining Centers offer Simple Servings, a concept that provides safe and appetizing food choices for those with food allergies, gluten intolerance, or those who prefer "simple" foods. Simple Servings eliminates the eight ingredients that account for 90% of all food allergy reactions, available in both dining centers seven days a week.

Retail Dining. We offer a variety of retail locations across campus. These establishments accept Dining Dollars, On Campus Dining Dollars, Central Cash, credit cards, debit cards, and cash. Options include:

The Crossing - Starbucks® and Spin Pizza®

The Elliott Student Union - Chick-fil-A®, Starbucks®, AFC Sushi, CRU5H™, The Grid™, and Taco Bell®

Einstein Bros Bagels® located in the James C. Kirkpatrick Library and the Student Recreation and Wellness Center

Traditions at Pertle Springs - Full-service restaurant overlooking the final hole of Mules National Golf Club

Distance Learning

660-543-4984
http://ucmo.edu/ucmonline

Distance Learning at the University of Central Missouri encompasses Internet-based, electronically delivered education via online and interactive television (I-TV). Online Learning and Engagement manages, schedules,

coordinates, and assists in marketing all distance education courses and degree programs. Appropriate student services, including library resources, financial assistance, an online writing lab, academic advising, and technical support are provided to meet the additional needs of the distance learner.

Elliott Student Union

660-543-4052
ucmo.edu/union
Facebook: Elliott Student Union; Twitter: @UCMElliottUnion

The Elliott Student Union is centrally located on the main campus and serves as the "living room" for the campus community. The Elliott Student Union includes dining facilities, including Cru5h fun food & drink, Chick-fil-A®, Taco Bell™, SubConnection™, AFC Sushi®, and Starbucks™, meeting space, a computer lab, a DVD rental kiosk, a U.S. Bank branch, ATMs, student organization offices, study lounges, and quiet areas. It is often used for social functions, student activities, and other programs. The union also houses student services offices that include: the OneCard office, Dining Services/Catering, International Center, Student Government Association, Meeting and Conference Services, and the Office of Accessibility Services. The Elliott Student Union features an Information Desk that provides campus-wide information to students, staff, faculty and guests.

Health Promotion

600 S. College St., 660-543-8947

healthpromotion@ucmo.edu; ucmo.edu/healthpromo

The Office of Health Promotion at UCM helps students learn, grow, and thrive through education about, and engagement in, health-promoting and risk-reducing behaviors. Using sound data and best practices, we work to put the power of prevention in the hands of our students.

Some of our services include:

Online prevention education courses: We believe you should have the opportunity to learn in a safe and civil environment, make informed choices regarding alcohol and drugs, and know how to respond to the choices of those around you. These free online courses provide you with important prevention skills and strategies to help promote respectful relationships and a safer and healthier environment at UCM, as well as many UCM-specific supportive resources.

The Sexual Violence Prevention course is required for all new students, and an enrollment hold is placed if it's not completed by the day enrollment opens for the following semester.

Care To Act: This multi-level violence prevention strategy is focused on encouraging a culture of care on our campus and includes an online pre-matriculation course, a bystander intervention training program, and community-level violence prevention elements, and is focused on the areas of interpersonal violence, substance misuse, bias and discrimination, and mental health/suicidality.

Safe Zone: Safe Zone workshops at UCM offer information on LGBTQIA+ identities, terminology, ally development, and ways to support LGBTQIA+ students on our campus. We invite anyone in the UCM community to attend a Safe Zone workshop and become a Safe Zone ally, including staff, faculty, graduate assistants, and students

Presentations: Interactive educational programs for classrooms, residence halls, student organizations, and more. Topics include alcohol and other drugs, mental health, sense of belonging, and interpersonal violence.

Assistance with prevention-related research: We're happy to help both undergraduate and graduate students with their research into interpersonal violence, alcohol and drugs, mental health, and other prevention-related topics.

Institute for Public Safety

200 Ming Street; 660-543-4090
mosafetycenter.com
Facebook: Central Missouri Police Academy; Twitter: @ucmpa

The Institute for Public Safety (IPS), a division of the Missouri Safety Center, develops and sponsors select in-service training courses for public safety professionals including law enforcement, firefighters, safety and emergency medical service providers.

IPS is also home to the Central Missouri Police Academy (CMPA). The CMPA is licensed by the Missouri Department of Public Safety's Peace Officer Standards and Training (POST) program as a Licensed Basic Training Center that exceeds POST's basic training requirements for a Class A Peace Officer License. Upon graduation from the academy, and passing the POST test, students are eligible to be licensed Peace Officers and may receive 15 hours of elective credit toward a bachelor's degree.

Institute for Rural Emergency Management

660-543-4971; fax 660-543-4482
ucmo.edu/irem

The Institute for Rural Emergency Management (IREM), a division of the Missouri Safety Center (MSC), at the University of Central Missouri was established in June 2005. IREM meets a demonstrated need for technical assistance in rural communities, to include mitigating, preparing for, responding to, and recovering from emergencies and disasters. UCM is the only university in the U.S. to create a community outreach center focused on the emergency management needs of rural America, which are distinct from the needs of urban and suburban communities.

IREM gathers best practices from successful rural projects and develops guidelines and targeted information to distribute to elected officials and community leaders. In rural areas, human resources are often limited, so IREM provides supervised student interns and researchers to complete vital projects, implement new programs, and deliver training workshops and exercises.

International Student Services

Ward Edwards 1800; 660-543-4621; fax 660-543-4778

KMOS-TV

University of Central Missouri's Broadcasting Services, KMOSTV, serves close to one million residents in west and central Missouri.

The station is a working laboratory for scores of UCM students - providing employment opportunities and on-the-job experiences that augment a student's academic achievements.

KMOS-TV is a member of the Public Broadcasting Service, presenting PBS national programming as well as producing a variety of local productions relevant to the needs and interests of central Missourians. The television station broadcasts four separate digital channels: 6.1 is a full schedule of nationally acclaimed PBS prime-time and children's programming and award-winning local productions in High Definition; Channel 6.2 (Create) is lifestyle and how-to programs; 6.3 (MHz Worldview) features international news and drama; and channel 6.4 presents family-friendly PBS Kids programming around the clock.

Learning Commons

JCK Library 3160, 660-543-8972
learningcommons@ucmo.edu; ucmo.edu/learningcommons

The Learning Commons, located on the third floor of the JCK Library, houses Tutoring Services, the Writing Center, and the Test Prep Center. This collaborative learning environment offers students a comfortable place to work, study, and receive individualized assistance. Computer access is also available.

Writing Center
JCK Library 3160, 660-543-8972 or 660-543-4367
writingcenter@ucmo.edu; ucmo.edu/ae/writing
OWL (Online Writing Lab): ucmo.edu/ae/writing/owl.cfm

The Writing Center, located in the Learning Commons, offers free one-on-one writing instruction and assistance with any paper or writing assignment from first-year courses through graduate theses. The Writing Center has walk-in hours and the availability of appointments. Students may also submit papers through OWL (Online Writing Lab), our online writing service, and receive feedback through email.

Test Preparation Center
JCK Library 3160, 660-543-8972
learningcommons@ucmo.edu; ucmo.edu/learningcommons

The Test Prep Center provides electronic and print resources to help students prepare for most exams. Whether you need general suggestions about preparing for your next course exam or plan to take a standardized exam, the Test Prep Center can provide that support. Students can learn what to expect, how to prepare, and practice sample questions for their upcoming exam.

Library Services

James C. Kirkpatrick Library; 660-543-4154
http://library.ucmo.edu
Facebook: JCKLibrary; Instagram: @jcklibrary

The James C. Kirkpatrick Library serves as the major source on campus, providing a wide range of student and faculty-centered services supporting the University's instructional, research, and public service programs. In collaboration with the Office of Graduate Studies, library faculty offer instruction and research consultations, and workshops specifically for graduate students.

Services

- On and off-campus access to electronic resources, including journals, books, multidisciplinary databases, and other research materials
- Library instruction, workshops, subject guides, and tutorials
- Research assistance (in-person or virtual) from subject experts is available both individually and via group sessions
- Extended hours for librarian chat services
- PC laptop checkout
- Accessible tables, study carrels, and computers
- More than 160 computers are located throughout the library
- More than 44 study rooms for individual and group use
- Active learning classrooms

- Einstein Bros. Bagels Express®, housed on the first floor of the building, offers beverages and snacks.

UCM's distance learners are encouraged to communicate with the library regarding services that meet their special needs. Virtual meetings, email, chat services, and telephone are all available options for communication with Library Services faculty, librarians and staff.

Meeting and Conference Services

Elliott Student Union 301; 660-543-4342; fax 660-543-8469
ucmo.edu/meetings

Students may reserve university space for student organization and personal use. Depending on the use of the space, charges may or may not apply. All space rental requests must be submitted to Meeting and Conference Services. To reserve space, students should submit event requests 10 business days prior to the event at ucmo.edu/scheduleevent. A confirmation will be sent by email which will include room assignment, event times, set-up requests, audio-visual equipment needs and any charges that apply.

Military and Veteran Services

Elliott Student Union 117; 660-543-8776
ucmo.edu/vets

The Office of Military and Veteran Services is a part of the university's presidential military and veterans' service initiative to better serve our active-duty service members, reservists, guardsmen, veterans and their dependents as students at UCM. UCM offers a Military Tuition Package to eligible students who utilize military tuition assistance and/or the GI Bill® for their tuition and are enrolled as degree seeking-students. UCM also offers a discounted undergraduate tuition rate to our currently serving service members. The Military and Veterans Success Center (MVSC) provides a one-stop, full-service resource center to assist the military affiliated student population. The MVSC has computers with CAC readers, a quiet study lab, individual and group study areas, as well as a family room and dedicated staff to assist students with their educational pursuit. Staff assist veterans, service members, and dependents requiring services and benefits from the Veterans Administration, Military Tuition Assistance and any state or federal benefits. The Student Veterans Organization (SVO) provides an opportunity for active-duty service members, reservists, guardsmen, veterans and their dependents to become involved with their student peers and participate in social and campus activities as one voice. The SVO assists its members with becoming acclimated to campus, providing guidance on campus resources as well as an interactive support system.

Missouri Safety Center

660-543-4830; fax 660-543-4482
mosafetycenter.com; Facebook: MissouriSafetyCenter

Established July 1, 1967, the Missouri Safety Center (MSC) proves the benefits of combining an academic school with a training center, creating a hybrid unit dedicated to the safety and welfare of all citizens. As noted in its mission statement, "To promote safety in Missouri and the nation," the MSC strives to prevent injury and death through education, training, research, public service, and publications. The MSC's three distinct divisions are: The Division of Transportation Safety (DTS), The Institute for Public Safety (IPS), and the Institute for Rural Emergency Management (IREM).

Located just south of the main campus, the MSC's Division of Transportation Safety is housed in the Highway Safety Instructional Park at 1200 South Holden Street. This unique 14-acre highway safety training facility hosts many of the center's programs and features an advanced driving track, skid pad and off-road track for dirt bike and ATV training, as well as the Missouri breath alcohol training laboratory.

The MSC's Institute for Public Safety is located at 200 Ming Street near the main campus. The IPS develops and sponsors select basic and in-service training courses for professionals in public safety. The IPS's goal is to provide innovative, experiential learning opportunities tailored to the needs of regional public safety organizations. The IPS also manages the Central Missouri Police Academy (CMPA). The CMPA is licensed by the Missouri Department of Public Safety's Peace Officer Standards and Training (POST) program as a Licensed Basic Training Center that exceeds POST's basic training requirements for a Class A Peace Officer License.

The MSC's Institute for Rural and Emergency Management, located in Humphrey's Building, Suite 200, was established in 2005 to assist rural communities with mitigating, preparing for, responding to, and recovering from emergencies and disasters. The MSC also prepares graduates for the growing emergency management field through a Bachelor of Science degree in Crisis and Disaster Management or a specialized certificate available entirely online or on campus. Students who participate in this program may concentrate in the areas of emergency management, emergency services management, hazardous materials, or business continuity. This degree program addresses the need within the state of Missouri for technically educated emergency management professionals.

Non-Traditional Student Services

Elliott Student Union 217; 660-543-4007
https://www.ucmo.edu/current-students/student-experience/office-of-student-activities/#

Non-Traditional Student Services is a resource office for Central Missouri's students who are age 24 and over, have a gap of five or more years since high school, are married, single, have children, or are veterans. This office provides information, support, advocacy, and referrals to campus and community support services. The office has information about non-traditional scholarships, housing, child-care, and tutoring or other skill enhancers.

Office of Sponsored Programs & Research Integrity

Administration 315; 660-543-4264
Sponsored Programs: ucmo.edu/osp
IRB and IACUC: researchreview@ucmo.edu

The Office of Sponsored Programs & Research Integrity oversees programs that guide UCM in its research, scholarly activity, and creative endeavors. The office disseminates information about funding opportunities, assists in proposal development/submission, and oversees award management, budgeting, reporting, and compliance.

Research Involving Human Subjects
To protect the health and safety of human subjects involved in research, all research projects involving the use of human subjects must be in compliance with federal regulations. All projects involving human subjects in research must be approved in advance by the UCM Human Subjects Review Committee which serves as the Institutional Review Board (IRB).

Research Involving Animals
Federal law requires that all research projects involving the use of selected mammals and birds be conducted in a manner that ensures humane treatment of animals. All such projects must be approved in advance by the UCM Institutional Animal Care and Use Committee.

Office of Technology

Ward Edwards 0800; 660-543-4357 (HELP)
tsc@ucmo.edu; ucmo.edu/ot

The Office of Technology provides general oversight and support of technology resources across campus, that includes, but is not necessarily limited to, workstations (desktops, laptops, tablets, mobile devices, etc.), classroom technologies, enterprise and departmental applications, unified communications, cell phones, network infrastructure (data, voice, and video), servers, storage arrays, network connectivity (wired and wireless), Internet connectivity, identity management, and general and targeted user support. The Office of Technology is composed of four teams that work together to support the technology needs and requirements of UCM's students, faculty, staff, administrative, and other campus constituents.

Application Systems
Application Systems has oversight of enterprise and departmental systems to include design, development, implementation, maintenance, and support of enterprise and departmental systems. Banner system modules and the many layered applications that link to any of the Banner systems is a dominant focus of the Applications Systems team. In addition, Applications Systems has oversight and operational responsibility for enterprise database engines and the data contained in those databases. The Application Systems team works closely with functional offices and individuals to plan, coordinate, execute, support, and maintain the various applications that are core to the Banner environment along with systems and applications that have a direct or indirect interface to the Banner database. The Application Systems team also has a wide scope of responsibilities for the implementation and technical support of non-Banner enterprise and departmental systems and applications.

Infrastructure Services
Infrastructure Services has oversight of enterprise and departmental servers and storage, core systems for network connectivity, authentication, security and data retention. The Infrastructure Service team has responsibility for the network infrastructure that provides data, voice, video, and Internet access and connectivity to the UCM campus. Duties and activities include design, implementation, engineering, deployment, support, and maintenance of aforementioned systems. The Infrastructure Services team is responsible for network traffic, wired and wireless connectivity, Internet access, remote access, and telecommunications. The Infrastructure Service team supports classroom technology resources that provide interactive, application-based software and hardware in support of the academic learning environment. Infrastructure
Services also has the responsibility for the network operations center where critical physical servers, storage, and core network equipment is located.

Technology Operations
Technology Operations is responsible for departmental budgets, technology operations, and providing administrative support to Office of Technology departments. Technology Operations takes direction from the AVP IT / CIO and supports the overall operations of the Office of Technology to include such duties as, budget planning and forecasting, oversight of hardware and software contracts and licensing, assist with human resources activities, equipment inventory, telephone support services, accounts and access services, oversight of fiscal operations, and conducting other duties to support the overall operations of the Office of Technology.

Technology Support Services
Technology Support Services has oversight of end-user technology resources across campus that includes deployment, support, and maintenance of workstations, laptops, handheld devices, tablets, printers, copiers, etc., utilized by UCM students, faculty, staff, and administration in the many diversified workplaces across campus. Technology Support Services provides first-line support to the UCM user community via the Technology Support Center to include conducting basic troubleshooting, processing user requests for services, and answering general questions about campus technology. Students can reach the Technology Support Center by calling 660-543-4357, visiting Ward Edwards 0200, or by email (tsc@ucmo.edu). TSC phones are answered 24/7. When Technology Support Services staff members are not on site, an answering
service representative will take a message for a call back the next business day. If immediate service is required, Technology Support Services personnel will be paged for immediate response.

Online Learning and Engagement

660-543-4984; fax 660-543-8333
extcampus@ucmo.edu; ucmo.edu/es

With the cooperation of Central Missouri's academic schools, Online Learning and Engagement administers courses and degree programs off campus and online. Online Learning and Engagement also coordinates summer sessions, workforce development programs, workshops, non-credit courses, contract training, continuing education units (CEUs), and entrepreneurial courses.

Public Safety

660-543-4123 (or 911 for emergencies); fax 660-543-4163
ucmo.edu/ps

The Department of Public Safety includes University Police, Access Control, Environmental Health and Safety, and Parking Services. It is located at 306 Broad St. and is open 24 hours daily, 365 days per year. For emergencies on campus, dialing 911 from the university phone system will reach the Department of Public Safety. Dialing 911 from a cell phone will connect the caller to Johnson County Central Dispatch.

Publications

The following publications are produced and distributed by the University of Central Missouri:

- *UCM Today,* a quarterly magazine for alumni and friends of the university published by University Relations and the Office of Alumni Relations and Development
- *The Muleskinner,* a weekly campus newspaper published by the Department of Communication and Digital Media Production student staff.

Registrar and Student Records

Ward Edwards 1000; 660-543-4900; fax 660-543-8400
registrar@ucmo.edu; ucmo.edu/registrar

The Office of the Registrar and Student Records maintains the official student records of UCM. The Registrar's Office is responsible for maintaining accurate records of student enrollments and grades. The Registrar's Office provides official transcripts, maintains degree audit reports, and evaluates students for graduation requirements. Enrollment and degree verification certificates are available in MyCentral for currently enrolled students and through the National Student Clearinghouse for former students.

Transcripts
There are two types of academic transcripts - unofficial and official. Currently enrolled students have access to unofficial transcripts in MyCentral. Official transcripts are provided for a fee.

An academic transcript shows a history of all courses taken, grades received, and hours earned. If a UCM degree or certificate is earned, the type of degree or certificate, date conferred, and majors and minors will be listed on the transcript. The UCM official transcript includes student legal name, UCM student number, and birth month and date. Social security number is not included on the transcript for security reasons.

Diplomas and Certificates
Upon graduation all students receive a diploma and/or certificate. The cost of the diploma and/or certificate is included in the graduation fee. Graduate diplomas include the degree earned and name of the program. Certificates

include the name of the certificate earned. If the student earned a double degree or more than one certificate, a diploma/certificate will be provided for each degree/certificate.

Student Experience and Engagement

Administration 214; 660-543-4114; fax 660-543-8114
ucmo.edu/student

The Office of Student Experience and Engagement coordinates a wide variety of student services and programs. These services and programs are designed to help students have a safe and supportive collegiate experience, develop a sense of personal responsibility and experience personal growth, acquire essential skills to thrive as emerging citizens and leaders, understand their role and responsibility within a larger community, identify personal values, appreciate differences, and adapt to a diverse society. The office assists students, their families and visitors to better understand and access these services as they apply to their needs and situation.

Student Financial Services

Ward Edwards 1100; 660-543-8266; fax 660-543-8080
ucmo.edu/contactsfs (for email inquiries)
ucmo.edu/sfs

The Office of Student Financial Services administers a wide variety of federal, state, and UCM scholarship, grant, loan, and employment programs, all of which provide funds to help eligible students satisfy the educational and living expenses of attending UCM. Knowledgeable staff members are available to assist students and their families, with all aspects of applying for financial assistance.

Testing Services

JCKL 1250; 660-543-4919; fax 660-543-8757
testingservices@ucmo.edu; ucmo.edu/testingservices

Testing Services serves as the repository of official score reports, provides information and administers national, state, and locally developed tests, as well as supports and coordinates Central Missouri's Quality Improvement Program (CQIP). Testing Services is a member of the National College Testing Association (NCTA) and the Consortium of College Testing Centers. Testing Services adheres to NCTA Professional Standards and Guidelines.

Official Score Report Policy

- Official score reports are required to be on file for a student to meet admission and/or other program requirements.
- Only score reports that are sent from the test company directly to Testing Services are considered official.
- The University of Central Missouri retains and uses scores obtained within the past 10 years. ACT scores accepted at the time of admission may be no older than five years.
- To protect confidentiality and privacy, score reports are not available by telephone, fax, email, Internet, or proxy.
- An official ID containing the candidate's photo and signature is required for most services.

Test Registration
There are several ways to register for various tests:

- Registration for some tests, including the Accuplacer Placement test, is available via MyCentral or go to www.registerblast.com/ucmo. Select the test day and time and complete the online registration process as directed.
- Registration for some tests must be completed in person at Testing Services, JCKL 1250.
- Registration for some tests, including CLEP, MEGA, MoGEA (teacher education), and FAA exams, must be completed directly through the testing company.
- Test fees and administration fees are automatically billed to the UCM student's financial account unless paid directly to the testing company.
- For candidates not enrolled at UCM, only cash or money orders payable to UCM Testing Services can be accepted, except for test fees paid directly to the testing company.
- Test candidates are not fully registered until Testing Services confirms receipt of fees and seat availability.

Test Cancellation

Candidates are obligated to test on their scheduled date and time. To maintain reasonable test administration fees, a no-show fee of $10 may be applied to the UCM student's financial account, unless Testing Services is notified of a change at least 24 hours in advance or proof of a university-approved absence is provided.

Test Accommodations

Testing Services is pleased to accommodate students who have documented disabilities, in compliance with the Americans with Disabilities Act. Candidates with disabilities are responsible for requesting test accommodations prior to or during registration and following the procedures outlined by the test company. Candidates are responsible for confirming with Testing Services their test date, time, location, and approved test accommodations.

UCM Alumni Foundation

Elliott Student Union, Smiser Alumni Center, 660-543-8000
alumni@ucmo.edu, giving@ucmo.edu; ucmo.edu/foundation

The UCM Alumni Association and UCM Foundation joined together in 2015, combining their volunteer boards and developing new committees and strategies to reach more aggressive goals in terms of alumni engagement and financial support of the university's mission. The UCM Alumni Foundation now operates under the central mission "to cultivate, manage and distribute resources in support of the University of Central Missouri." As the university's official nonprofit organization, the UCM Alumni Foundation solicits and manages donors' gifts to benefit both specific areas as well as the university's greatest needs. Scholarships are one of the largest areas where gifts make an impact benefiting learning to a greater degree. Other areas where the organization makes an impact include reunions, Homecoming, Mule Nation alumni events, the UCM Magazine and Distinguished Alumni Awards.

UCM Lee's Summit

660-543-8228; 816-347-1612; fax 816-347-9574
summit@ucmo.edu; ucmo.edu/summit

The UCM Lee's Summit location is an off-campus site whose mission is to serve adult learners in the Greater Kansas City metropolitan area. UCM Lee's Summit is located within the Summit Technology Campus near the junction of Missouri highways 50 and 470. The 40,000 square foot facility features multi-use classrooms and seminar rooms equipped with state-of-the-art technology, interactive television rooms, computer labs, and conference rooms. Offerings include undergraduate certificate programs, completion degrees, graduate certificate and degree programs. UCM Lee's Summit location also serves as a resource to the community for professional and workforce development.

UCM Whiteman Air Force Base

660-543-4464;660-281-6355
wafb@ucmo.edu; ucmo.edu/whiteman

The UCM Whiteman Air Force Base (UCM-WAFB) location is an off-campus site whose mission is to serve military and military-affiliated individuals in continuing their education. UCM-WAFB located within the Professional Development Center on WAFB. The facility features a recently upgraded classroom to allow for virtual instruction and a dedicated student computer lab. Offerings include select graduate degrees and industry recognized certifications through MyCAA. UCM-WAFB also serves as a resource center for military and military-affiliated individuals needing assistance applying to the university, academic advising, and tuition assistance.

University of Central Missouri Prussing Farm

The 260-acre University of Central Missouri Prussing Farm, a teaching unit of the Agriculture program that utilizes the latest in agriculture technology, provides laboratory experience for students in agriculture classes and work opportunities for students interested in hands-on experience. The newest additions to the farm are a two-classroom Agriculture and Conservation Building and a trapshooting range with skeet overlay funded by a grant from the Missouri Department of Conservation. Additional teaching/research facilities are a mature orchard, greenhouse complex with dwarf orchard, and research plots on campus and at the 100-acre Agricultural Research Farm on Mitchell Street. Agriculture research, funded by the university, private industry, and the Natural Resources Conservation Service, is conducted by faculty and students at these facilities.

University Health Center

600 S. College St., 660-543-4770; fax 660-543-8222
uhc@ucmo.edu; ucmo.edu/uhc

The University Health Center (UHC), located just south of the Elliott Student Union, is the place to go when you're sick, injured, or need medication, a physical, or prevention services.

Clinical Services: The UHC offers acute care, laboratory services, immunizations, and a Medication Clinic to students and is staffed by nurse practitioners. Appointments are required and the UHC sees patients only when classes are in session.

Mandatory Immunization Requirements: Students must provide evidence of two (2) vaccinations for immunity against measles, mumps, and rubella (MMR), and completion of the Student Tuberculosis Screening Form. As of July 1, 2015 the State of Missouri requires all students living in university housing to have one dose of quadrivalent meningococcal vaccine (MCV-4 or MPSV-4) after their 16th birthday. For instructions on how to upload your vaccination records and complete the TB Screening Form please visit this page.

Health Insurance: All students attending UCM should have adequate health insurance coverage and university policy requires that all international students have health insurance coverage. Please see the "Student Health Insurance" section on the main University Health Center webpage for more information.

University Store - The Crossing

114 W. South Street; 660-543-4227
ucmbookstore.com

University Store -The Crossing is located just north of Vernon Kennedy Field/Walton Stadium at 114 W. South Street. University Store-The Crossing sells an assortment of officially licensed UCM clothing and souvenirs. Convenience store items are available in our adjoining store, Mule Stop. Online orders for emblematic merchandise are accepted at our Web site, ucmbookstore.com . University Store-The Crossing is open fall and spring semesters Monday

through Friday, 9:00 am to 6:00 pm; Saturday, 9:00 am to 3:00 pm and Sunday during the fall semester, 12 noon to 5:00 pm. Summer hours are Monday through Friday, 9:00 am to 5 pm; Saturday 9:00 am to 3:00 pm.

Welch-Schmidt Center for Communication Disorders

Martin 34; 660-543-4993; fax 660-543-8234
ucmo.edu/comdisorders/about/center.cfm

UCM has a comprehensive speech-language and hearing clinic in the Welch-Schmidt Center for Communication Disorders. Undergraduate and graduate student clinicians, supervised by Missouri-licensed and American Speech-Language-Hearing Association (ASHA)-certified faculty of the Department of Human Services, provide prevention, assessment, and treatment services to students, faculty, and members of the community who may exhibit difficulties in articulation, voice, swallowing, stuttering, language, literacy, hearing disorders, and foreign accent.

The Center has treatment rooms with two-way mirrors, video and audio monitoring; an early childhood preschool for children with speech and language disorders who are between the ages of two and one half and five years, a speech acoustics and physiology lab that provides instrumentation for rigid and flexible endoscopy vocal fold visualization, air-flow/pressure, and acoustic measurement of the voice, four audiologic suites where hearing evaluations, impedance audiometry, otoacoustic emissions, and video otoscopy are performed, an Augmentative and Alternative Communication (AAC) lab, Scottish-Rite Early Language and Literacy Lab, and a Functional Communication Clinic (FCC). The hearing aid laboratory is equipped with the latest technology for the fitting and dispensing of hearing instruments.

Students have available a variety of current assessment and treatment materials and a student clinician workroom complete with workstations. The center collaborates with the university English Language Center for a unique service-learning opportunity for student clinicians by providing accent reduction therapy for those international students enrolled in the Intensive English Program (IEP). With the support of the Scottish-Rite, the Center is also able to provide literacy evaluations and treatment to children and adults.

Students, faculty, staff, and their immediate families with speech sound errors, autism, aphasia, or other communication deficits may use the center's services at reduced fees. The Center welcomes self-referrals and referrals from university faculty and staff, the University Health Center, and community health and educational agencies.

University of Central Missouri

College of Arts, Humanities, and Social Sciences

Martin 126 • 660-543-4364
fax: 660-543-8006
ucmo.edu/cahss

The College of Arts, Humanities, and Social Sciences is comprised of:

- Department of Communication and Digital Media Production
- Department of English
- Department of Modern Languages and Interdisciplinary Studies
- School of Visual and Performing Arts

School of Visual and Performing Arts

Courses offered in Art and Design may be defined as Studio courses. Studio courses are intended as the point of integration for all other coursework and educational experiences. They are intended to teach critical thinking and create an environment where students are taught to question in order to create better art/design. Studio courses are defined by an emphasis on monitored practice and collaborative learning practices.

Music, MA (52-438) (32 hours)

Student Learning Outcomes

The graduate with a Master of Arts degree in Music will use the knowledge and skills obtained in the program to:

- Explain and interpret musicological context, analytical procedures, and musical literature in primary area of study.
- Design and produce research and creative work within area of emphasis.
- Demonstrate at an advanced level a mastery of technique, musicality, and pedagogical approaches appropriate to the primary area of focus.

The elective hours of this program are designed to allow students to focus coursework on History and Literature, Music Education, Performance, Piano Pedagogy, Conducting, Kodaly Music Education, Music Technology or a customized plan to meet student goals.

Admission Requirements

1. Have a minimum GPA of 2.5 on all undergraduate coursework
2. Have completed:
    1. A bachelor's degree in music
    2. OR; with the approval of the music department chair: a bachelor's degree in another discipline with an equivalent amount of coursework and/or experience in the primary area of interest.
3. Portfolio, audition, and/or interview for your primary area of interest.

Required Graduate Courses: 18-21 Semester Hours

- MUS 5000 - Introduction to Graduate Study (3)

- MUS 5050 - Research Problems (3)
  OR
- MUS 5370 - Kodaly Methods and Materials III (3)

- MUS 5105 - Analytical Studies (3)
  OR
- MUS 5445 - Contemporary Electronic Music Analysis (3)

- Music History and Literature (6)
- Major Instrument or Voice or Conducting, 5000 Level (3-6)

Approved Graduate Electives in Music: 11-14 Semester Hours

Minimum Graduate Hour Total: 32 Semester Hours

Note:

Please visit with the graduate faculty coordinator for assistance in selecting elective courses or review the Graduate Handbook on the website of the School of Visual and Performing Arts (ucmmusic.com).

Department of Communication and Digital Media Production

Communication, MA (52-869) (31 hours)

Student Learning Outcomes

The graduate with a Master of Arts degree in Communication will use the knowledge and skills obtained in the program to:

- Understand communication theories and their application across a variety of academic and professional contexts.
- Demonstrate proficiency in reading, analyzing, and/or implementing research methodologies in the discipline of Communication.
- Demonstrate the ability to integrate theories and scholarship into a professionally driven culminating project within a focused area of Communication

UCM's Master of Arts in Communication allows you to specialize in the areas of personal, community, professional, and/or media-based communication contexts. This program builds upon prior study and experience in communication (or a closely related field) preparing students for advanced work in communication professions or continued academic study in pursuit of a terminal degree.

The Master of Arts in Communication has two different areas that can be selected, Area 1 Applied Communication or Area 2 Communication Studies.

Area 1: Applied Communication

Student Learning Outcomes - The graduate with a Master of Arts degree in Communication, Applied Communication Area will use the knowledge and skills obtained in the program to:

- Develop the skills to evaluate research and its applicability within professional settings.

- Demonstrate an understanding of communication theories and their application across personal and professional settings.
- Advance communicative skills across Media, Interpersonal, and/or Organizational contexts.

Mission Statement: The MA in Communication - Applied Communication Area is a credentialing program designed to equip individuals with advanced skills and techniques; preparing them to be more informed and effective advocates, consumers, and communicators within personal, community, professional, and/or media-based contexts.

Mode of Delivery: The Applied Communication Area is designed to be completed entirely online. However, enrollment in select face-to-face courses is an option.

Target Audience: This program is intended for working professionals who are looking to advance their career by attaining a graduate degree.

Admission Requirements

To be accepted into the Applied Communication Area of this MA program, a student must have a minimum overall undergraduate grade point average of 2.50 and a minimum grade point average of 2.75 in at least 15 hours of undergraduate communication courses. Students with less than 15 hours of course work in communication may be accepted, but before any courses are taken for graduate credit, they must have a minimum of 15 semester hours of approved undergraduate courses in communication with a minimum grade point average of 3.00. A student who is required to complete background courses must fulfill this requirement by taking specified courses in an undergraduate area - Digital Media Production or Communication Studies - to ensure a specialized skill sequence in communication. In addition, international students scoring below 550 paper based or 79 on the IBT TOEFL. Students must also complete a research component.

As part of the admissions process, each student seeking admission to the school as a degree seeking candidate must complete the following:

- Submit a Statement of Purpose for Graduate Studies -The statement should be 1-2 pages, typed and double-spaced. Please address the following areas in your statement:
    - The relationship (if any) between previous training/experience, graduate studies, and your professional goals.
    - Professional position and career activities you wish to pursue after completing the program.
    - Specific goals you wish to achieve in graduate studies.
    - Planned area(s) of interest in graduate studies.
    - Additional Information you feel is relevant.
- Submit two Recommendation forms from professional or academic sources.
- Submit a writing sample (e.g. a paper from an undergraduate course, professional report); if neither of these samples are available, please contact the graduate coordinator for a writing prompt.

A student may be required to demonstrate proficiency in one modern language or statistics, or other approved research tool, depending upon the student's area of interest or completion of the program.

Area 2: Communication Studies

Student Learning Outcomes - The graduate with a Master of Arts degree in Communication, Communication Studies Area will use the knowledge and skills obtained in the program to:

- Analyze and conduct research that contributes to the application, creation, and expansion of knowledge in the field of communication.
- Advance communicative skills across Media, Interpersonal, and/or Organizational contexts.
- Produce original scholarly or creative materials that demonstrates expertise within a focused area of communication.

Faculty in Communication embraces the traditions, study, and practice of symbolic interaction through a variety of communication genres. The graduate program is designed to advance student's preparation for scholarly or professional endeavors.

Mission Statement: The MA in Communication is an advanced degree that builds upon prior study and experience in communication (or a closely related field) preparing students for advanced work in communication professions or continued academic study in pursuit of a terminal degree.

Mode of Delivery: The Communication Studies Area is designed to be completed primarily face-to-face. However, enrollment in select online courses is an option.

Target Audience: This program is intended to prepare individuals for continued academic studies (e.g. PhD or terminal degree), for careers in academia, or for professional advancement in non-academic careers.

Admission Requirements

To be accepted into the Communication Studies Area of this MA program, a student must have a minimum overall undergraduate grade point average of 2.50 and a minimum grade point average of 2.75 in at least 15 hours of undergraduate communication courses. Students with less than 15 hours of course work in communication may be accepted, but before any courses are taken for graduate credit, they must have a minimum of 15 semester hours of approved undergraduate courses in communication with a minimum grade point average of 3.00. A student who is required to complete background courses must fulfill this requirement by taking specified courses in an undergraduate area - Digital Media Production or Communication Studies - to ensure a specialized skill sequence in communication. In addition, international students scoring below 550 paper based or 79 on the IBT TOEFL. Students must also complete a research component.

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    - Professional position and career activities you wish to pursue after completing the program.
    - Specific goals you wish to achieve in graduate studies.
    - Planned area(s) of interest in graduate studies.
    - Additional Information you feel is relevant.
- Submit two Recommendation forms from professional or academic sources.
- Submit a writing sample (e.g. a paper from an undergraduate course, professional report); if neither of these samples are available, please contact the graduate coordinator for a writing prompt.

A student may be required to demonstrate proficiency in one modern language or statistics, or other approved research tool, depending upon the student's area of interest or completion of the program.

Required Graduate Courses: 4 Semester Hours

- COMM 5000 - Introduction to Graduate Studies (1)
- COMM 5810 - Theories of Communication (3)

Elect one of the two areas: 27 Semester Hours

Applied Communication Area

Methods: 3 Semester Hours

- COMM 5800 - Quantitative Research Methods for Communication (3)
  OR
- COMM 5820 - Qualitative Research Methods (3)

Research: 3 Semester Hours

- COMM 6890 - Research Problems (1-6) (Research Project) (3)

Required Coursework: 9-15 Semester Hours

- COMM 5240 - Media Management (3)
- COMM 5301 - Special Projects in Speech Communication (1-3)
- COMM 5330 - Group Communication (3)
- COMM 5780 - Communication Leadership and Practice in Organizations (3)
- COMM 5781 - Strategic Communication Audits (3)

Communication Electives: 6-12 Semester Hours

Communication Studies Area

Methods: 6 Semester Hours

- COMM 5340 - Rhetorical Analysis and Society (3)
- COMM 5800 - Quantitative Research Methods for Communication (3)
- COMM 5820 - Qualitative Research Methods (3)

Research: 3-6 Semester Hours

- COMM 5890 - Thesis (1-6)
  OR
- COMM 6890 - Research Problems (1-6)

Required Coursework: 9-18 Semester Hours

- COMM 5271 - Family Communication (3)
- COMM 5285 - Women and Minorities in Media (3)
- COMM 5320 - Influence in Society (3)
- COMM 5335 - Gender Communication (3)
- COMM 5390 - Contemporary Communication (3)
- COMM 5780 - Communication Leadership and Practice in Organizations (3)

Communication Electives: 0-9 Semester Hours

Minimum Graduate Hour Total: 31 Semester Hours

Department of English

Department of English
Martin 336 • 660-543-4425
ucmo.edu/englphil

English, MA (52-308) (31 hours)

Student Learning Outcomes

The graduate with a Master of Arts degree in English will use the knowledge and skills obtained in the program to:

- Demonstrate general knowledge of the history and variety of literature and rhetoric written in English.
- Demonstrate in-depth knowledge of a specific literary and/or rhetorical topic.
- Demonstrate awareness of underrepresented groups.
- Demonstrate familiarity with scholarly methodologies (historical and contemporary), literary and rhetorical terminology, use of secondary sources, and principles of documentation.
- Formulate original research questions, apply appropriate technologies, and incorporate results into formal presentations.
- Demonstrate increasing ability to write with clarity, style, and originality.

This program is designed for people who wish to pursue the study of language and literature at an advanced and scholarly level for personal enrichment, career advancement, or further graduate study.

Admission Requirements

For acceptance into this program, students must have a grade point average of 2.75 or above. In addition, international students must score above 575 on the paper version or 90 on the internet based version of the International Test of English as a Foreign Language (TOEFL) and earn a score of 5 or better on the Test of Written English (TWE). It is strongly recommended that students have completed 18 hours of English language and literature courses at the 2000 level or higher.

Each student seeking admission must send the following materials directly to the Coordinator of the M.A. English program:

- Two confidential letters of reference. The letters should be written by those most able to address the student's academic work, written and verbal skills, and promise of achievement at the graduate level.
- A writing sample. The writing sample is a one-page typewritten statement of purpose in which the student outlines his/her educational background, teaching and/or research experience (if any), and reasons for pursuing an M.A. in English.

Required Graduate Courses: 6 Semester Hours

Introduction to Graduate Studies: 3 Semester Hours

This course must be taken the first semester it is offered during the student's enrollment. See graduate advisor for exception.

- ENGL 5000 - Introduction to Graduate Study in Language and Literature (3)

Underrepresented Groups: 3 Semester Hours

Students may choose one of the following courses or seminars on this topic.

- ENGL 5210 - Studies in English Literature (3)
- ENGL 5220 - Studies in American Literature (3)
- ENGL 5230 - Studies in Theory and Criticism (3)
- ENGL 5240 - Studies in Writing and Rhetoric (3)
- ENGL 5560 - British Women Writers (3)
- ENGL 5660 - Women Writers of the United States (3)
- ENGL 5670 - Ethnic American Literature (3)
- ENGL 5680 - African American Literature (3)
- ENGL 5750 - Postcolonial Literature (3)
- ENGL 5990 - Special Projects in English (1-3) (3)

Graduate Electives: 24 Semester Hours

- ENGL 5210 - Studies in English Literature (3)
- ENGL 5220 - Studies in American Literature (3)
- ENGL 5230 - Studies in Theory and Criticism (3)
- ENGL 5240 - Studies in Writing and Rhetoric (3)
- ENGL 5310 - Chaucer (3)
- ENGL 5330 - Renaissance English Writers (3)
- ENGL 5340 - Old and Middle English Literature (3)
- ENGL 5360 - Shakespeare (3)
- ENGL 5390 - Special Topics in Medieval and Renaissance Literature (3)
- ENGL 5450 - The Age of Milton (3)
- ENGL 5460 - Wits and Satirists: 1660-1800 (3)
- ENGL 5500 - Nineteenth Century English Novel (3)
- ENGL 5510 - Romantic Poets and Essayists (3)
- ENGL 5540 - Victorian Poetry (3)
- ENGL 5560 - British Women Writers (3)
- ENGL 5590 - Special Topics in 19th Century Literature (3)
- ENGL 5610 - American Renaissance (3)
- ENGL 5620 - Early American Literature (3)
- ENGL 5640 - American Realists and Naturalists (3)
- ENGL 5660 - Women Writers of the United States (3)
- ENGL 5670 - Ethnic American Literature (3)
- ENGL 5680 - African American Literature (3)
- ENGL 5690 - Special Topics in Traditionally Underrepresented Literature (3)
- ENGL 5700 - British Fiction 1890 to Present (3)
- ENGL 5710 - Modern American Fiction (3)
- ENGL 5720 - Modern British Poetry (3)
- ENGL 5730 - Modern American Poetry (3)
- ENGL 5750 - Postcolonial Literature (3)
- ENGL 5790 - Special Topics in 20th and 21st Century Literature (3)
- ENGL 5990 - Special Projects in English (1-3)

Graduate Portfolio: 1 Semester Hour

- ENGL 5900 - Graduate Portfolio (1)

Minimum Graduate Hour Total: 31 Semester Hours

Teaching English as a Second Language Graduate Certificate (50-998) (18 hours)

Mission Statement:

The mission of the Teaching English as a Second Language (TESL) department is to prepare students to teach English to speakers of other languages both in the US and abroad. Students will develop their understanding of the process of additional language acquisition as well as the unique needs of culturally and linguistically diverse students.

Students will be able to:

- Demonstrate their understanding of current theoretical trends and issues in the field of TESOL/TEFL, including an understanding of the metalinguistic knowledge of English.
- Demonstrate an ability to create and present effective classroom applications of language theories for teaching ESL/EFL, and design appropriate materials and assessments to meet learner needs.
- Demonstrate an understanding of cultural influence in language learning.

Due to the applied nature of this program, students are required to participate in curricular practical training during the first year of studies based on appropriate courses. In addition, students are expected to take ENGL 5890 - Practicum in English as a Second Language (3) to meet enrollment requirements.

Students who successfully complete the TESL Graduate Certificate can work in the field of ESL in the US and abroad. A maximum of 6 semester hours of approved transfer credit may be applied to the certificate. For acceptance into this program, non-native speakers of English must score above 85 on the internet-based version of the International Test of English as a Foreign Language (TOEFL) or earn a score of 7.0 or above on the academic version of the International English Language Testing System (IELTS).

Required Graduate Courses: 18 Semester Hours

- EDFL 5150 - Methods for Teaching ESOL (3)
- ENGL 5120 - Second Language Acquisition (3)
- ENGL 5410 - Linguistics (3)
- ENGL 5420 - Language and Culture (3)
- ENGL 5890 - Practicum in English as a Second Language (3)

- ENGL 5820 - Assessment and Professionalism in TESL (3)
  OR
- ENGL 5960 - Advanced Teaching Methods for TESL (3)

Minimum Graduate Hour Total: 18 Semester Hours

Teaching Writing Graduate Certificate (50-3081) (18 hours)

Student Learning Outcomes - A student with a Graduate Certificate in Teaching Writing will use the knowledge and skills obtained in the program to:

- Understand the writing process as it translates to the teaching of writing in varied genres and contexts.
- Develop writing assignments that demonstrate how writing can be used as a tool for learning and critical inquiry.
- Design effective writing tasks using or situated within new media environments.
- Create a personal writing pedagogy that leads to consistency in practice when teaching, assigning, responding to, and assessing writing.
- Fulfill leadership roles in professional development programs related to improved literacy instruction.

Each student seeking admission must send the following materials directly to the Coordinator of the M.A. English program:

- Two confidential letters of reference. The letters should be written by those most able to address the student's academic work, written and verbal skills, and promise of achievement at the graduate level.
- A writing sample. The writing sample is a one-page typewritten statement of purpose in which the student outlines his/her educational background, teaching and/or research experience (if any), and reasons for pursuing an M.A. in English.
- Candidates must successfully complete the GKCWP Invitational Institute prior to admission of the certificate.
- Candidates who hold a BA degree in a discipline other than English may be admitted to the program if they demonstrate a commitment to teaching writing within their own discipline as a central component of their pedagogy. Such a commitment can be demonstrated in the writing sample or letters of recommendation.

Required Graduate Courses: 9 Semester Hours

- ENGL 5250 - Applied Writing With New Media (3)
- ENGL 5260 - Seminar in Professional Writing for Teachers (3)
- ENGL 5850 - Invitational Institute: Teachers Teaching Teachers (3)

Graduate Electives: 9 Semester Hours

Suggested certificate electives applicable to the MA in English:

- ENGL 5210 - Studies in English Literature (3)
- ENGL 5220 - Studies in American Literature (3)
- ENGL 5230 - Studies in Theory and Criticism (3)
- ENGL 5240 - Studies in Writing and Rhetoric (3)
- ENGL 5660 - Women Writers of the United States (3)
- ENGL 5990 - Special Projects in English (1-3)

Suggested certificate electives applicable to the MSE ELL, K-12 or TESL:

- ENGL 5110 - Grammar for Teaching English as a Second Language (3)
- ENGL 5120 - Second Language Acquisition (3)
- ENGL 5410 - Linguistics (3)
- ENGL 5420 - Language and Culture (3)

Suggested certificate electives applicable to the MA in Teaching:

- EDFL 5208 - Content Area Literacy (3)
- EDFL 5210 - Assessment of Literacy Development (3)
- EDFL 5340 - Contemporary Instruction: Theory and Practice (3)

Minimum Graduate Hour Total: 18 Semester Hours

Department of History

History, MA (52-423) (30 hours) [Also available as an accelerated program]

Student Learning Outcomes

The graduate with a Master of Arts degree in History will use knowledge and skills obtained in the program to:

- Demonstrate an understanding of the development of history as a discipline.
- Analyze and evaluate major issues and events in a student's area of specialization.
- Demonstrate competence in primary and secondary research.
- Demonstrate competence in the ability to present research in a professional manner.

This program is designed for students seeking advanced study in the field of history. For the Pre-Doctoral, Applied, and Enrichment areas, all students must pass a comprehensive examination before the completion of the program.

Admission Requirements

1. To be accepted into this program, a student must have a minimum overall grade point average of 2.75 and a minimum grade point average of 3.00 in at least 20 hours of undergraduate history courses.
2. Students with less than 20 hours of course work in history may be accepted, but before their program of study is approved, they must have completed 20 hours of approved junior and senior-level undergraduate courses in history with a minimum grade point average of 3.00.

Required Graduate Courses: 9 Semester Hours

- HIST 5350 - US Colloquium (3)
- HIST 5400 - Historical Methods and Historiography (3)
- HIST 5450 - World Colloquium (3)

Graduate Electives in History: 5-13 Semester Hours

Select One of the Following Areas:

Pre-Doctoral Area (HI01): 8-16 Semester Hours

- HIST 6350 - Thesis (4-6)
- Graduate Electives (2-12)

Applied Area (HI02): 12 Semester Hours

- HIST 5340 - Public History (3)
- HIST 5341 - Digital Archives and Digital Storytelling (3)
- HIST 5500 - Public History Internship (3)
- HIST 5550 - Public History Project (3)

Enrichment Area (HI03): 8-16 Semester Hours

- HIST 5350 - US Colloquium (3) (0-6)
  OR
- HIST 5450 - World Colloquium (3) (0-6)

- Graduate Electives in a Related Area (2-10)

Minimum Graduate Hour Total: 30 Semester Hours

Accelerated Program Notes:

The Accelerated model for this program is designed for the BA or BS History.

Students may apply to the program after completing ninety (90) credit hours at UCM. Once admitted, students take up to 12 credits of graduate-level work their senior year and receive retroactive undergraduate credit upon successful completion.

Courses that an accelerated student may be eligible to include as overlap between the undergraduate and graduate programs:

HIST 5300 - Missouri History (3) (HIST 4300)

HIST 5307 - American Colonial History 1607-1763 (3) (HIST 4307)

HIST 5309 - The African-American in American History (3) (HIST 4309)

HIST 5311 - Revolution and Republic (3) (HIST 4311)

HIST 5314 - Jacksonian America (3) (HIST 4314)

HIST 5315 - The Civil War and Reconstruction (3) (HIST 4315)

HIST 5316 - The American Military Experience (3) (HIST 4316)

HIST 5317 - The Jazz Age and the Great Depression (3) (HIST 4317)

HIST 5318 - The Gilded Age and Progressive Era (3) (HIST 4318)

HIST 5320 - History of the American West (3) (HIST 4320)

HIST 5322 - US History Since 1945 (3) (HIST 4322)

HIST 5324 - Truman and Civil Rights (3) (HIST 4324)

HIST 5327 - African American Women, Gender, and Girlhood (3) (HIST 4327)

HIST 5328 - History of Flight (3) (HIST 4328)

HIST 5330 - The United States and World War II (3) (HIST 4330)

HIST 5337 - Nature's Nation: American Environmental History (3) (HIST 4337)

HIST 5340 - Public History (3) (HIST 4340)

HIST 5410 - Women in America (3) (HIST 4310)

HIST 5411 - The Renaissance and Age of Exploration (3) (HIST 4411)

HIST 5412 - Wars of Reformation and Religion (3) (HIST 4412)

HIST 5414 - The Age of the French Revolution and Napoleon (3) (HIST 4414)

HIST 5415 - Revolutionary Europe (3) (HIST 4415)

HIST 5416 - Europe in Crisis: 1900-Present (3) (HIST 4416)

HIST 5423 - Rule Britannia!: The Making and Eclipse of a Great Power (3) (HIST 4423)

HIST 5431 - Topics in German History (3) (HIST 4431)

HIST 5432 - Nazi Germany and the Holocaust (3) (HIST 4432)

HIST 5442 - The Soviet World (3) (HIST 4442)

HIST 5451 - Imperial Spain 1469-1714 (3) (HIST 4451)

HIST 5452 - Modern Latin America (3) (HIST 4452)

HIST 5453 - History of Mexico (3) (HIST 4453)

HIST 5461 - The Rise of Chinese Civilization (3) (HIST 4461)

HIST 5462 - The Rise of Japanese Civilization (3) (HIST 4462)

HIST 5463 - Modern China (3) (HIST 4463)

HIST 5464 - Modern Korea (3) (HIST 4464)

HIST 5471 - The African Diaspora (3) (HIST 4471)

HIST 5472 - African History (3) (HIST 4472)

HIST 5473 - History of South Africa (3) (HIST 4473)

HIST 5491 - Special Projects in World History (1-6) (HIST 4491)

HIST 5551 - Special Projects in American History (1-6) (HIST 4351)

Department of Modern Languages and Interdisciplinary Studies

Department of Government, Law, and International Affairs

Department of Sociology and Anthropology

College of Education

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ucmo.edu/ced

The College of Education is comprised of:

- Department of Career and Technical Education
- Department of Counseling and Educational Leadership
- Department of Early, Elementary, Middle and Physical Education
- Department of Educational Foundations and Literacy
- Department of Educational Technology and Library Science

- Department of Special Education & Behavior Analysis

Alternative Pathways to Certification

The Missouri Department of Elementary and Secondary Education provides multiple pathways toward educator certification. Here at UCM, we will help you work toward those goals.

If you already have an undergraduate degree, the Alternative Pathways to Certification program can help you complete the requirements for educator certification in the State of Missouri. To be eligible for admission to the Alternative Pathways to Certification program, you will need to meet the admissions criteria listed below.

The Alternative Pathways to Certification program provides hands-on learning through practicum experiences in the classroom. Classes may meet in a variety of formats depending on your intended teaching content area. Possible course locations/formats include the main campus in Warrensburg, the Missouri Innovation Campus in Lee's Summit, or hybrid/online. **This program is not guaranteed to be an online program.** Some certification areas are not fully online options.

Program Admission Requirements

Applicants seeking admission to the Alternative Pathways to Teacher Certification (Alt Cert) program must have the following:

(1) Hold a bachelor's degree from a regionally accredited college or university,

(2) Have a 3.00 GPA in the declared teaching content area coursework or obtain a passing score on the designated Missouri Content Assessment (MoCA) in lieu of completing the required content area coursework as approved by DESE.

(3) Submit to and clear a background check (felony convictions may be disqualifying events) completed through the Missouri Highway Patrol/FBI within the past calendar year.

(4) A letter of intent responding to the following question, "Why are you interested in a teaching career?"

(5) Two letters of recommendation from college/university educators and/or supervisors qualified to address your potential for success as a PreK-12 educator and/or colleagues who are qualified to address your professional skills. (letters submitted to an education masters program at UCM will suffice)

Alternative Pathways to Certification is not a degree awarding program and by itself only leads to initial teacher certification in the state of Missouri. Candidates who wish to complete a graduate degree may do so concurrently by applying to one of the graduate degree programs below. These programs may require additional admission requires:

- Applicants interested in teaching Early Childhood Birth-3rd grade may apply for the Master of Science in Education Early Childhood.
- Applicants interested in teaching Special Education Cross-Categorical or Early Childhood may apply for the Master of Science in Education Special Education.
- Applicants interested in teaching Agriculture Education, Business Teacher Education, Engineering & Technology Teacher Education, or Family Consumer Science Education may apply for the Master of Science in Career & Technical Education.
- Applicants interested in Library Science/Library Media may apply for the Master of Library Science.
- Applicants interested in other areas may apply for the Master of Arts in Teaching.

To get started on applying or for more information, please fill out our Alternative Certification Interest Form here: ucmo.edu/cert

Department of Career and Technical Education

Academic Advising in Higher Education Graduate Certificate (50-858) (12 hours)

Student Learning Outcomes - Students will develop a foundation of knowledge concerning academic advising in educational organizations, understand the implications of academic advising on student recruitment, retention, and successful completion of the student's educational program.

- Become familiar with a variety of advising techniques, relevant variables that affect the advising interaction, and issues that impact on the advising profession
- Develop a conceptual understanding of the components of effective academic advising, such as organization and delivery of academic advising,
- Advising non-traditional and under-represented students, and understand ethical and legal implications and assessment approaches.

Required Graduate Courses: 12 Semester Hours

- CTE 5280 - Adult Education and Training (3)
- CTE 5430 - Diverse Student Populations & The College Experience (3)
- CTE 5640 - Foundations of Academic Advising (3)
- 3 hours of CTE, EDFL, INST elective

Career and Technology Education, MS (53-870) - CTE Administration Leadership Option (0006) (30 hours)

Student Learning Outcomes

The graduate with a Master of Science degree in Career and Technical Education will use the knowledge and skills obtained in the program to:

- Identify, develop, practice, and reflect upon leadership, technical, and professional skills in the CTE.
- Investigate and reflect on historical and current issues, trends, and topics in CTE in order to develop one's personal philosophy in CTE.
- Develop, analyze, and implement curricular and instructional components consistent with curriculum and assessment design practices and theory.
- Employ data literacy strategies to develop supportive learning environments and to improve learning. (e.g. Financial, programmatic, instructional, employment)
  Locate, critique, evaluate, and create scholarly writing/scientific research in the field of CTE.
- Lead, develop, and/or participate in collaborative activities with CTE stakeholders.

This program is designed to strengthen the leadership skills for, 1) students and teachers in career and technical education (agriculture education, business education, family and consumer sciences education, health sciences education, marketing education, engineering and technology education, and trade and industrial education) in middle schools, high schools, career centers, or community colleges; 2) employees in CTE-related industry environments.

The CTE Administration Leadership Option is designed for current or new CTE administrators pursuing administrator certification and should be pursued consistent with the candidate's official certification plan. This option may also be selected by candidates planning to pursue CTE administration in the future or for current CTE administrators pursuing additional leadership coursework.

Admission Requirements

To be accepted to this program, students must have no fewer than 15 approved undergraduate or graduate hours in the major field of study, equivalent work experience, or a combination of both. Students must also have a minimum grade point average of 2.50 in the undergraduate major or a 3.00 grade point average during the last 60 semester

hours of undergraduate study. Applicants who do not meet any of the preceding criteria must achieve a 3.50 graduate grade point average during their first 12 semester hours of graduate study which must include required degree courses. In addition, applicants must submit two professional letters of recommendation and a personal letter of intent describing how this degree will assist them in meeting their career goals

Graduation requirements include completing one of the following four options: (1) a Thesis (2) two research papers consistent with university requirements; (3) a comprehensive examination; or (4) successfully complete the Missouri Assessment Center Examination for their content area.

Required Graduate Courses: 12 Semester Hours

- CTE 5110 - Foundations of Career and Technical Education (3)
- CTE 5265 - Performance Assessment in Career and Technical Education (3)
- CTE 5900 - Introduction to Research Methods (3)
- CTE 6020 - Curriculum Development Theory in Career and Technical Education (3)

CTE Administration Leadership Option Electives: 18 Semester Hours

- Program Advisor and Graduate Program Coordinator Approved Electives (18)

Minimum Graduate Hour Total: 30 Semester Hours

Career and Technology Education, MS (53-870) - CTE Industry Training Option (0007) (30 hours)

Student Learning Outcomes

The graduate with a Master of Science degree in Career and Technical Education will use the knowledge and skills obtained in the program to:

- Identify, develop, practice, and reflect upon leadership, technical, and professional skills in the CTE.
- Investigate and reflect on historical and current issues, trends, and topics in CTE in order to develop one's personal philosophy in CTE.
- Develop, analyze, and implement curricular and instructional components consistent with curriculum and assessment design practices and theory.
- Employ data literacy strategies to develop supportive learning environments and to improve learning. (e.g. Financial, programmatic, instructional, employment)
  Locate, critique, evaluate, and create scholarly writing/scientific research in the field of CTE.
- Lead, develop, and/or participate in collaborative activities with CTE stakeholders.

This program is designed to strengthen the leadership skills for, 1) students and teachers in career and technical education (agriculture education, business education, family and consumer sciences education, health sciences education, marketing education, engineering and technology education, and trade and industrial education) in middle schools, high schools, career centers, or community colleges; 2) employees in CTE-related industry environments.

The CTE Industry Training Option is designed for CTE industry personnel who plan and/or conduct training in their environment or who desire to become more effective leaders in their current positions. This option will be tailored to the candidate's specific needs in any CTE-related field.

Admission Requirements

To be accepted to this program, students must have no fewer than 15 approved undergraduate or graduate hours in the major field of study, equivalent work experience, or a combination of both. Students must also have a minimum grade point average of 2.50 in the undergraduate major or a 3.00 grade point average during the last 60 semester

hours of undergraduate study. Applicants who do not meet any of the preceding criteria must achieve a 3.50 graduate grade point average during their first 12 semester hours of graduate study which must include required degree courses. In addition, applicants must submit two professional letters of recommendation and a personal letter of intent describing how this degree will assist them in meeting their career goals

Graduation requirements include completing one of the following four options: (1) a Thesis (2) two research papers consistent with university requirements; (3) a comprehensive examination; or (4) successfully complete the Missouri Assessment Center Examination for their content area.

Required Graduate Courses: 12 Semester Hours

- CTE 5110 - Foundations of Career and Technical Education (3)
- CTE 5265 - Performance Assessment in Career and Technical Education (3)
- CTE 5900 - Introduction to Research Methods (3)
- CTE 6020 - Curriculum Development Theory in Career and Technical Education (3)

CTE Industry Training Option Electives: 18 Semester Hours

- Program Advisor and Graduate Program Coordinator Approved Electives (18)

Minimum Graduate Hour Total: 30 Semester Hours

Career and Technology Education, MS (53-870) - CTE Teaching Leadership Option (0005) (30 hours)

Student Learning Outcomes

The graduate with a Master of Science degree in Career and Technical Education will use the knowledge and skills obtained in the program to:

- Identify, develop, practice, and reflect upon leadership, technical, and professional skills in the CTE.
- Investigate and reflect on historical and current issues, trends, and topics in CTE in order to develop one's personal philosophy in CTE.
- Develop, analyze, and implement curricular and instructional components consistent with curriculum and assessment design practices and theory.
- Employ data literacy strategies to develop supportive learning environments and to improve learning. (e.g. Financial, programmatic, instructional, employment)
  Locate, critique, evaluate, and create scholarly writing/scientific research in the field of CTE.
- Lead, develop, and/or participate in collaborative activities with CTE stakeholders.

This program is designed to strengthen the leadership skills for, 1) students and teachers in career and technical education (agriculture education, business education, family and consumer sciences education, health sciences education, marketing education, engineering and technology education, and trade and industrial education) in middle schools, high schools, career centers, or community colleges; 2) employees in CTE-related industry environments.

The CTE Teaching Leadership Option is designed for (1) current professionally certified instructors pursuing additional professional teaching coursework for teaching enhancement (Plan A); or (2) new CTE teachers pursuing post-baccalaureate professional teacher certification or occupational career and technical certification through their official state certifying body for professional licensure to teach in public education (Plan B). Additionally, new or future teachers pursuing post-baccalaureate teacher certification (Plan B) must obtain an official certification plan and take teacher certification courses identified by either (1) their State Department of Education; or (2) the UCM Director of Clinical Services and Certification. All students in Plan B, with the assistance of their program advisor, will create a

program of study based on deficiencies listed on their certification plan or professional teaching certificate. While students pursuing this option may pursue teaching certification, certification is not a requirement for the degree.

Plan A - Prof. Education Coursework for Teaching Enhancement

Plan B - Post-Baccalaureate Teaching Certification

Admission Requirements

To be accepted to this program, students must have no fewer than 15 approved undergraduate or graduate hours in the major field of study, equivalent work experience, or a combination of both. Students must also have a minimum grade point average of 2.50 in the undergraduate major or a 3.00 grade point average during the last 60 semester hours of undergraduate study. Applicants who do not meet any of the preceding criteria must achieve a 3.50 graduate grade point average during their first 12 semester hours of graduate study which must include required degree courses. In addition, applicants must submit two professional letters of recommendation and a personal letter of intent describing how this degree will assist them in meeting their career goals

Graduation requirements include completing one of the following four options: (1) a Thesis (2) two research papers consistent with university requirements; (3) a comprehensive examination; or (4) successfully complete the Missouri Assessment Center Examination for their content area.

Required Graduate Courses: 12 Semester Hours

- CTE 5110 - Foundations of Career and Technical Education (3)
- CTE 5265 - Performance Assessment in Career and Technical Education (3)
- CTE 5900 - Introduction to Research Methods (3)
- CTE 6020 - Curriculum Development Theory in Career and Technical Education (3)

CTE Teaching Leadership Option Electives: 18 Semester Hours

- Program Advisor and Graduate Program Coordinator Approved Electives (18)

Minimum Graduate Hour Total: 30 Semester Hours

College Teaching Graduate Certificate (50-679) (12 hours)

Student Learning Outcomes - Upon completion of this certificate students will have a base of knowledge in the theories and practices of post-secondary learning and an understanding of the dynamic administrative environment of higher education.

- Develop a working knowledge of higher education, history, legal issues, administration, governance, and finance.
- Understand the roles and responsibilities of faculty.
- Understand the adult learner in post-secondary environments.
- Design, implement, and evaluate higher education curriculum and assessments.
- Analyze the principles and techniques of presenting content specific information to facilitate student learning.

Required Graduate Courses: 12 Semester Hours

- CTE 5145 - Curriculum & Literacy Development in CTE (3)
- CTE 5410 - Assessment and Program Evaluation in Higher Education (3)
- CTE 5650 - Preparation for the Professoriate (3)

- CTE 5660 - Teaching Methods in Post-Secondary Education (3)

Minimum Graduate Hour Total: 12 Semester Hours

Community College Leadership Graduate Certificate (50-866) (12 hours)

Student Learning Outcomes - Upon completion of this certificate students will understand the major characteristics of American community colleges, including missions, students and constituencies; methods of governance, organization and finance; student services functions, historical development, current status; and future prospects.

- Have a broad familiarity with professional organizations, research centers, publications, and other resources concerned with community colleges.
- Possess a comprehensive knowledge and understanding of the major research, commentary and other literature on community colleges.
- Be familiar with the types of community colleges in the United States, including knowledge of specific institutions and state systems.

Required Graduate Courses: 12 Semester Hours

- CTE 5410 - Assessment and Program Evaluation in Higher Education (3)
- CTE 5610 - The Community College (3)
- CTE 5620 - Enrollment Management Theory and Practice (3)
- 3 Credit Hours elective in CTE, EDFL, INST

CTE Administration Leadership Graduate Certificate (50-977) (15 hours)

Student Learning Outcomes - The CTE Leader with a Graduate Certificate in CTE Administration Leadership will use the knowledge and skills obtained in the program to:

- Identify, develop, practice, and reflect upon leadership, technical, and professionalism skills in CTE
- Identify, discuss, critique, and debate historical and current issues, trends, and topics in CTE.
- Evaluate existing and develop new curriculum components consistent with historical and emerging curriculum design practices and theory.
- Investigate, develop, and reflect upon one's personal philosophy in CTE.
- Become an effective CTE liaison for local education and industry professionals, customers, and society in general.
- Effectively lead one's local CTE personnel, programs, and community while effectively and ethically managing resources.

Required Graduate Courses: 15 Semester Hours

- CTE 5110 - Foundations of Career and Technical Education (3)
- CTE 5150 - Introduction to Career Administration (3)
- CTE 5140 - Organization and Administration of Career & Technical Education (3)
- CTE 6070 - Financing and Funding Career and Technical Education (3)
- CTE 6090 - Data Analysis for Career & Technical Education (3)

Minimum Graduate Hour Total: 15 Semester Hours

Diversity Issues in Higher Education Graduate Certificate (50-867) (12 hours)

Student Learning Outcomes - Upon completion of this certificate students will understand the concepts of diversity, inclusive excellence, and privilege.

- Recognize and comprehend the complexities of diversity and privilege as they pertain to educational leadership.
- Have developed the ability to assess dynamic situations with regard to and concern for social justice and the welfare of students.
- Understand self in the context of diversity awareness.
- Be aware of the impact campus climate and privilege can have on students in higher education.
- Understand how to promote inclusive excellence within one's sphere of influence and understand how the changing student demographics require an inclusive environment to promote excellence in all facets of education.

Required Graduate Courses: 12 Semester Hours

- CTE 5280 - Adult Education and Training (3)
- CTE 5430 - Diverse Student Populations & The College Experience (3)
- CTE 5630 - Diversity and Inclusion in Higher Education (3)
- 3 hours elective in CTE, EDFL or INST

Professional Leadership, EdS (61-686) - Adult, Career, and Technical Education Option (0035) (30 hours)

Student Learning Outcomes

The graduate with an Education Specialist degree in Professional Leadership will use the knowledge and skills obtained in the program to:

- Apply research methods to interpret, describe, and infer from existing or newly generated data.
- Provide leadership to one's own professional discipline.
- Plan, conduct, and analyze scientific research in one's discipline.

Admission Requirements

This advanced program is designed for individuals who are currently involved in or planning careers in a professional leadership position. To be accepted into this program, students must: (1) have earned a master's degree in the area of specialization or have completed 15 semester hours of appropriate background courses as determined by the Department at either the undergraduate or graduate level; and (2) have achieved a cumulative grade point average of 3.25 in the master's degree.

Applicants who do not meet the above criteria will be classified as a "nondegree student" until they: (1) provide evidence of having completed 15 semester hours of background courses as determined by the Department; and (2) obtain a 3.5 GPA during the first 12 hours of graduate study in courses appropriate to the degree program and consistent with UCM's graduate policy.

At least 18 semester hours of the approved program must have been at the 5000/6000 level. If the approved program of study is more than 36 semester hours, at least fifty-percent of the semester credit hours must have been at the 5000/6000 level. Courses used to fulfill the minimum number of semester hours at the 5000/6000 level must be in courses taught only to graduate students. A minimum of six of these hours must be at the 6000 level.

Required Graduate Courses: 6-14 Semester Hours

Research Methods and Data Analysis: 3-6 Semester Hours

- COUN 5810 - Program Evaluation and Research in Counseling (3)
  OR
- CTE 5900 - Introduction to Research Methods (3)
  OR
- CTE 5910 - Qualitative Research (3) **
  OR
- CTE 6100 - Quantitative Analysis and Interpretation (3) **
  OR
- LIS 5900 - Research Methods in Library Science (3)
  OR
- LIS 6900 - Research Problems (3)
  OR
- PSY 5050 - Statistics for the Behavioral Sciences (3)

Capstone: 3-8 Semester Hours

- CTE 6130 - Special Investigations in Technology and Occupational Education (2-3) (3)
  OR
- CTE 6990 - Thesis (2-3) (3)

Electives: 16-24 Semester Hours

Students select 16-24 hours of appropriate elective coursework consistent with their career goals and University requirements. Elective courses are contingent on program advisor and graduate program coordinator approval.

Minimum Graduate Hour Total: 30 Semester Hours

** CTE 5910 only available to students who have completed CTE 5900 or equivalent during previous work; CTE 6100 only available to students who have completed CTE 5900 , LIS 5900, COUN 5810, or equivalent during previous work.

Department of Counseling and Educational Leadership

Counseling, MS (53-820) (60 hours)

Student Learning Outcomes

The graduate with a Master of Science degree in Counseling will use the knowledge, skills and dispositions obtained in the program to:

- Demonstrates knowledge and understanding of human and personality development and how these domains affect individuals. (Lifespan)
- Demonstrates knowledge and understanding of how human diversity affects learning and development within the context of a global society and a diverse community of families.(Diversity)
- Demonstrates knowledge and understanding of the principles of measurement and assessment, for both individual and group approaches. (Assessment)
- Explains the career development planning process across the lifespan, and assists individuals in their career exploration, decision-making and planning. (Career)

- Demonstrates knowledge and understanding of both psycho-educational and interactive group methods and techniques. (Group)
- Demonstrates knowledge and understanding of planning and goal setting for the personal, social, educational, and career development of the individual. (Personal Plans of Development)
- Demonstrates knowledge and understanding of various methods for delivering responsive counseling services to individuals and groups in school and community settings. (Counseling Services)
- Demonstrates knowledge and understanding of various methods to develop and maintain comprehensive counseling programs for all students in schools and prevention services for the broader community. (Program Management)
- Demonstrates knowledge and implements technology as a management and counseling tool in promoting the personal, education, social and career development of individuals. (Technology)
- Demonstrates understanding and develops professional relationships in the school, family, and community, through consultation and collaboration to promote development of all individuals. (Professional Relationships)
- Demonstrates knowledge and applies ethical principles of the counseling profession. (Ethics)
- Demonstrates knowledge and understanding of the legal aspects of the role of counseling in the school and community. (Law)
- Demonstrates knowledge and understanding of methods to promote his or her professional development and well-being. (Professional Development & Well-being)

The Counseling Program offers two degrees, the Master of Science in Counseling and the Education Specialist Degree in Human Services, Professional Counseling. The Counseling Program is designed to meet the academic requirements for certification as professional school counselors and for licensure as a professional counselor (LPC). The program is approved for the school counselor certificate issued by the Department of Elementary and Secondary Education (DESE).

Students may also select courses that fulfill academic requirements for registered play therapists (RPT) and licensed professional counselors (LPC). All students, including those seeking additional certification and licensure must apply to and be accepted by graduate studies and the Counseling program.

The Counseling Program operates within the framework of the American Counseling Association (ACA) Code of Ethics and Standards of Practice and the most current American School Counselor Association (ASCA) Code of Ethics. Students are expected to comply with the ACA and ASCA Codes of Ethics and all applicable University and school rules, policies and bulletins, which are subject to change from time to time.

Admission Requirements

1. Admissions Criteria - To be considered for admission to the Counseling Program, applicants must first be admitted to Graduate Studies and provide the Counseling Admissions and Standards Committee with a completed application file that contains:
    a. A completed Counseling Application Form.
    b. Official transcripts of all undergraduate and graduate course work from any post-secondary educational or professional institution or any other school experience following high school. To be considered for eligibility, the applicant's GPA must be 2.50 or higher in the total undergraduate course work, 2.75 or higher in the last 60 hours of undergraduate course work and 3.00 or higher for graduate course work. It is the applicant's responsibility to request and ensure that all official transcripts are on file.
    c. An official report of the results for the student's Graduate Record Examination (GRE) General Test taken during the last three years. To be considered for eligibility, a minimum combined score of 900 (GRE completed prior to August 2012) or 295 (GRE completed after August 2012) on the verbal and quantitative portions of the examination and 3.00 or greater on the analytical writing measure is recommended. Applicants who have completed an undergraduate degree from a regionally accredited institution with a cumulative GPA of 3.0 or higher and applicants who have completed a graduate degree from a regionally accredited institution may petition the Admissions and Standards

Committee for an exception to the GRE requirement. (See Requirements for Progression in the Program, item 2.)

d. A resume with complete listing of previous educational and employment experiences.
e. Three recommendations, prepared within the last three years, on the Counseling Program Recommendation Form. One recommendation can be from a certified or licensed mental health professional, or counselor educator. All recommendations must be from non-relative individuals who have direct knowledge of the applicant's professional experience and can attest to the individual's potential to work effectively as a counselor.
f. An articulate and satisfactory essay explaining the impact of previous employment and professional experiences upon the decision to apply to the counseling program, reasons for seeking the Master of Science Degree or Education Specialist Degree and appropriate future professional goals in counseling.
g. Such other information as deemed necessary and requested of the applicant by the Admissions and Standards Committee.
h. To be eligible for consideration, the applicant must also meet all other requirements for admission to graduate study as outlined in the general requirements for graduate studies and all applicable school rules, policies and bulletins, which may be subject to change.

2. Admissions Process - Complete application files as described above must be submitted to the Counseling Admissions and Standards Committee. When the file is complete, the applicant must submit a written request for the Admissions and Standards Committee to review the file. Files are typically reviewed within two weeks from the date of request. Applicants with consent from the program coordinator may enroll in COUN 5100 - Foundations of Professional Counseling (3) and COUN 5110 - Orientation to Professional Counseling and Ethics (3) as non-degree seeking students. Note: COUN 5100 must be taken prior to COUN 5110 or concurrently with COUN 5110. Contact the Department of Counseling and Educational Leadership-Counseling Program for further information.
    a. Application files must be completed by the end of the semester for which the applicant is seeking admission. Student will not be considered for admission unless the application file is completed as described above at the date of review. Application files will be carefully reviewed for eligibility by the Admissions and Standards Committee.
    b. If, in the best professional judgment of the Admissions and Standards Committee, the applicant meets the standards for eligibility and their file demonstrates the professional dispositions necessary to function effectively and within the current Codes of Ethics of the American Counseling Association and the American School Counselor Association, an interview may be scheduled with the counseling faculty.
    c. At any time during the review process, should any information come to light which in the best professional judgment of the committee requires additional information, further follow-up or investigation, the applicant will be notified. Applicants whose records indicate an inability to conform to the professional and ethical standards will be denied admission. Applicants who are denied admission may appeal the decision to the Admissions and Standards Committee (see Appeals Process in Student Handbook)

   The applicant is considered to be admissible and is rank ordered by the Admissions and Standards Committee if, in the best professional judgment of the Admissions and Standards Committee:

   1. The applicant meets all criteria stated herein,

   2. The interview confirms the individual's potential for developing professional dispositions required to function effectively and ethically as a counselor, and

   3. The applicant has no impediment that would render him/her ineligible for school endorsement on the school counseling certificate or recommendation for the LPC.

   4. Admission is competitive among all applicants and admission is granted as class size permits according to rank.

3. Requirements for Progression in the Program

a. First, students must take COUN 5100 - Foundations of Professional Counseling (3) and then they may take COUN 5110 - Orientation to Professional Counseling and Ethics (3). Note: COUN 5100 must be taken prior to COUN 5110 or concurrently with COUN 5110. Course work completed prior to admission to the Counseling Program may not be accepted toward a program of study in Counseling.
b. Students who score lower than 3.5 on the GRE Analytical Writing must seek assistance for improvement of their writing skills and must demonstrate satisfactory improvement before seeking advanced status. Participation in the Learning Center is required.
c. A satisfactory program of study approved by the student's adviser, Department of Counseling and Educational Leadership chair and the Dean of Graduate Studies must be filed within one month after completion of 12 semester hours of graduate study. University and Counseling Program policies will govern the appropriate application of previously completed coursework.
d. Students must complete the online orientation to Counseling Program process during the first semester after admission.
e. After completion of the foundation courses students must submit a request for advanced status. Advanced status requires a GPA of 3.0, an approved program of study, and demonstration of professional dispositions and competencies in all foundation courses. If in the best professional judgment of the Admissions and Standards Committee, an oral examination is necessary to establish competency to undertake advanced course activities, the student will be notified. They are then eligible to enroll in advanced courses.
f. Advanced courses require graduate students to have direct contact with individuals in school or community settings. Each graduate student is responsible for obtaining pre-approved written agreements with individuals and parents of minor children to observe, administer tests, conduct case studies, engage in counseling and other such activities to meet course requirements.
g. In clinical courses (practicum and internships) the graduate student is responsible for obtaining a standard written agreement with a school district or a community setting to perform the activities required by the clinical courses and to establish a written plan with a certificated school counselor or licensed professional counselor who is approved by the counseling and willing to serve as a site supervisor. Students are required to complete a total of six (6) semester hours in COUN 6910 - Internship in Professional Counseling (3-6). Documentation of a total of 600 clock hours is required.
h. During one of the last two semesters before graduation, students are required to pass the comprehensive exit examination.
i. Students admitted to the program are expected to comply at all times with the current Codes of Ethics as set forth by ACA and ASCA. Students who choose to accept professional counseling positions prior to attaining full certification or licensure must agree to use the title, "School Counselor in Training" or "Counselor in Training", to practice within the boundaries of their competence, to work under the supervision of a fully certified or licensed counselor, and to secure, maintain and provide documentation of professional counselor liability insurance. Students must also comply with all current DESE regulations governing certification. Violation of the ACA or ASCA Codes of Ethics by a student may lead to disciplinary action, up to and including dismissal from the program. Students who are dismissed may appeal the decision through the regular appeal process as described in the policies of University of Central Missouri.

School Counseling Area (8205)

Required Graduate Courses: 60 Semester Hours

Foundation Courses

- COUN 5100 - Foundations of Professional Counseling (3)
- COUN 5110 - Orientation to Professional Counseling and Ethics (3)
- COUN 5230 - Counseling Diverse Populations (3)
- COUN 5500 - Pre-Practicum in Professional Counseling (3)

- COUN 5610 - Introduction to Group Work (3)

Common Core Courses

(Advanced Status Not Required)

- COUN 5130 - Management of Comprehensive School Counseling Programs (3)
- COUN 5132 - Applications of Elementary School Counseling (1)
- COUN 5133 - Applications of Middle School Counseling (1)
- COUN 5134 - Applications of High School Counseling (1)
- COUN 5310 - Development Across the Life Span (3)
- COUN 5320 - Mental Health Issues in Counseling (3)
- COUN 5410 - Career Development and Counseling (3)
- COUN 5510 - Counseling Theories (3)
- COUN 5710 - Introduction to Assessment (3)
- COUN 5810 - Program Evaluation and Research in Counseling (3)
- COUN 6500 - Crisis Intervention in Professional Counseling (1)
- COUN 6540 - Parent and Family Counseling (3)
- COUN 6555 - Consultation in Professional Counseling (1)
- COUN 6560 - Supervision in Professional Counseling (1)

Advanced Status Courses

(Achievement of Advanced Status Required)

- COUN 5520 - Introduction to Play Therapy (3)
- COUN 5720 - Analysis and Diagnosis of the Individual (3)
- COUN 5900 - Practicum in Counseling (3)
- COUN 6910 - Internship in Professional Counseling (3-6) (6)

Minimum Graduate Hour Total: 60 Semester Hours

Certification Requirements for School Counselors-To qualify for the Missouri Counselor Certificate, Grades K-12, persons must meet the following requirements: (1) A valid Missouri teaching certificate (elementary or secondary) as required to teach in the public schools of Missouri; or completion of an approved curriculum in teaching methods and classroom management * (2) Completion of a course in Advanced Education of the Exceptional Child; (3) Achieve the qualifying score on the State Examination for school counseling; (4) Completion of a master's or higher degree in school counseling, counseling or counseling psychology; (5) Completion of the following program of required courses or equivalent.

*Individuals who do not possess a bachelor's degree in education from a state-approved teacher preparation program or hold a certificate to teach will need to take the following additional courses for certification as a school counselor in Missouri:

- EDFL 5330 - Classroom Discipline and Motivation (3)
- EDFL 5340 - Contemporary Instruction: Theory and Practice (3)
- EDSP 5200 - Advanced Education of the Exceptional Child (3)

Clinical Mental Health Counseling Area (8204)

Required Graduate Courses: 60 Semester Hours

Foundation Courses

- COUN 5100 - Foundations of Professional Counseling (3)
- COUN 5110 - Orientation to Professional Counseling and Ethics (3)
- COUN 5230 - Counseling Diverse Populations (3)
- COUN 5500 - Pre-Practicum in Professional Counseling (3)
- COUN 5610 - Introduction to Group Work (3)

Common Core Courses

(Advanced Status Not Required)

- COUN 5131 - Management of Clinical Mental Health Counseling (3)
- COUN 5310 - Development Across the Life Span (3)
- COUN 5320 - Mental Health Issues in Counseling (3)
- COUN 5410 - Career Development and Counseling (3)
- COUN 5510 - Counseling Theories (3)
- COUN 5710 - Introduction to Assessment (3)
- COUN 5810 - Program Evaluation and Research in Counseling (3)
- COUN 6500 - Crisis Intervention in Professional Counseling (1)
- COUN 6510 - Etiology and Pharmacology of Addictions (1)
- COUN 6520 - Addictions Counseling: Treatment Planning (1)
- COUN 6530 - Addictions Counseling: Theoretical Approaches and Co-Occurring Disorders (1)
- COUN 6540 - Parent and Family Counseling (3)
- COUN 6555 - Consultation in Professional Counseling (1)

Advanced Status Courses

(Achievement of Advanced Status Required)

- COUN 5520 - Introduction to Play Therapy (3)
- COUN 5720 - Analysis and Diagnosis of the Individual (3)
- COUN 5900 - Practicum in Counseling (3)
- COUN 6910 - Internship in Professional Counseling (3-6) (6)
- COUN 6560 - Supervision in Professional Counseling (1)

Minimum Graduate Hour Total: 60 Semester Hours

License Requirements for Clinical Mental Health Counselors-To qualify for the Missouri LPC persons must meet the following requirements: (1) Complete a master's or higher degree in counseling; (2) Achieve the qualifying score on the National Counselor Examination, and (3) Successfully complete 3,000 hours of post-graduate supervised experience.

Educational Leadership, EdS (61-649) - School Leader: Grades K-12 Option (0040) (30-31 hours)

Student Learning Outcomes

The graduate with the Education Specialist (EdS) degree in Educational Leadership will use the knowledge and skills obtained in the program to promote the success of all students by:

- Developing and implementing a vision for the school to guide the learning of all students and promote continuous school improvement.
- Providing instructional leadership that ensures a viable curriculum, effective instruction, professional learning, a positive school culture, and an equitable learning environment.
- Providing managerial leadership that ensures a safe, functional school environment, effective supervision of personnel, and the equitable and strategic use of school resources.
- Developing positive, supportive relationships with students, staff, parents/guardians, and the community.
- Continuing professional growth, reflective practice, and the ability to apply new knowledge and understanding to drive change and innovations.

The EdS in Educational Leadership program prepares school leaders who are reflective practitioners by requiring candidates to think analytically, practically and creatively about the teaching, learning, and the decision making processes associated with educational leadership.

Program Options

The degree options available include School Leader: Grades K-12, Advanced School Leader, Special Education Director, and Superintendent. The degree requires a minimum of 30 hours, however, course requirements within the options vary depending upon a student's master's degree and/or existing certification.

Admission Requirements

The EdS candidate must have a minimum overall graduate grade point average of 3.25. Applicants who do not meet the above GPA criteria must 1) submit a summative teacher evaluation or a letter of recommendation from a current school administrator, and 2) achieve a minimum of a 3.50 graduate grade point average during their first 12 hours of graduate study, which must include required degree courses.

School Leader: Grades K-12, leads to "Initial" administrative certification. Candidates should have a master's degree in a content area recognized by the Missouri Department of Elementary and Secondary Education (DESE). Special Education Director and Superintendent are geared toward advanced or additional administrative certification, including students working on Continuous Career certification. Candidates for Special Education Director or Superintendent must have a master's degree in educational administration or hold an administrative certification in an administrative area recognized by the Missouri Department of Elementary and Secondary Education.

Initial DESE certification requirements include the completion of a graduate degree in educational leadership; completion of a course in Education of the Exceptional Child; a valid Missouri teaching certificate; a minimum of three years of teaching; and the satisfactory completion of all requirements established by DESE, including passing scores on required assessments. Each administrator certification has specific pre-requisite credentialing and experience regulations applicable to that position. The EdS in Educational Leadership meets the degree requirements for Continuous Career Certification by DESE.

An applicant for an initial School Leader: Grades K-12 or Superintendent administrator certificate must receive a recommendation for DESE certification from the UCM Director of Clinical Services and Certification. Recommendation will be based upon the completion of all requirements established by DESE. Inquiries regarding DESE certification in school administration can be directed to the UCM Director of Clinical Services and Certification at 660-543-8441. For information concerning the degree contact the Educational Leadership program coordinator in the School of Professional Education and Leadership.

Required Graduate Courses: 15 Semester Hours

- EDAD 5110 - Foundations of Education Administration (3) *
  OR

- EDAD 6700 - School District Administration (3)

- EDAD 5120 - School Law (3) *
  OR
- EDAD 6120 - Advanced School Law (3)

- EDAD 5310 - Curriculum for School Leaders (3) *
  OR
- EDAD 6730 - Administration of K-12 Curriculum (3)

- EDAD 5710 - Public School Finance (3) *
  OR
- EDAD 6710 - Advanced School Finance (3)

- EDAD 5960 - Data Analysis for School Leaders (3) *
  OR
- EDAD 6960 - Research Problems (3)

School Leader: Grades K-12 Option: 15-16 Semester Hours

- EDAD 5130 - School Supervision (3) *
- EDAD 5620 - K-12 Administration (3) *
- EDAD 5770 - Instructional Leadership and School Improvement (3) *
- EDAD 6160 - School and Community Relations (3) *
- EDAD 6969 - Internship in School Administration I (2) *
- EDAD 6971 - Internship in School Administration II (2) *
- Advisor Approved Graduate Elective (0-15)

Minimum Graduate Hour Total: 30-31 Semester Hours

* Designated courses are required if not completed in previous coursework or degree.

Educational Leadership, EdS (61-649) - Special Education Director Option (0041) (30 hours)

Student Learning Outcomes

The graduate with the Education Specialist (EdS) degree in Educational Leadership will use the knowledge and skills obtained in the program to promote the success of all students by:

- Developing and implementing a vision for the school to guide the learning of all students and promote continuous school improvement.
- Providing instructional leadership that ensures a viable curriculum, effective instruction, professional learning, a positive school culture, and an equitable learning environment.
- Providing managerial leadership that ensures a safe, functional school environment, effective supervision of personnel, and the equitable and strategic use of school resources.
- Developing positive, supportive relationships with students, staff, parents/guardians, and the community.
- Continuing professional growth, reflective practice, and the ability to apply new knowledge and understanding to drive change and innovations.

The EdS in Educational Leadership program prepares school leaders who are reflective practitioners by requiring candidates to think analytically, practically and creatively about the teaching, learning, and the decision making processes associated with educational leadership.

Program Options

The degree options available include School Leader: Grades K-12, Advanced School Leader, Special Education Director, and Superintendent. The degree requires a minimum of 30 hours, however, course requirements within the options vary depending upon a student's master's degree and/or existing certification.

Admission Requirements

The EdS candidate must have a minimum overall graduate grade point average of 3.25. Applicants who do not meet the above GPA criteria must 1) submit a summative teacher evaluation or a letter of recommendation from a current school administrator, and 2) achieve a minimum of a 3.50 graduate grade point average during their first 12 hours of graduate study, which must include required degree courses.

School Leader: Grades K-12, leads to "Initial" administrative certification. Candidates should have a master's degree in a content area recognized by the Missouri Department of Elementary and Secondary Education (DESE). Special Education Director and Superintendent are geared toward advanced or additional administrative certification, including students working on Continuous Career certification. Candidates for Special Education Director or Superintendent must have a master's degree in educational administration or hold an administrative certification in an administrative area recognized by the Missouri Department of Elementary and Secondary Education.

Initial DESE certification requirements include the completion of a graduate degree in educational leadership; completion of a course in Education of the Exceptional Child; a valid Missouri teaching certificate; a minimum of three years of teaching; and the satisfactory completion of all requirements established by DESE, including passing scores on required assessments. Each administrator certification has specific pre-requisite credentialing and experience regulations applicable to that position. The EdS in Educational Leadership meets the degree requirements for Continuous Career Certification by DESE.

An applicant for an initial School Leader: Grades K-12 or Superintendent administrator certificate must receive a recommendation for DESE certification from the UCM Director of Clinical Services and Certification. Recommendation will be based upon the completion of all requirements established by DESE. Inquiries regarding DESE certification in school administration can be directed to the UCM Director of Clinical Services and Certification at 660-543-8441. For information concerning the degree contact the Educational Leadership program coordinator in the School of Professional Education and Leadership.

Required Graduate Courses: 15 Semester Hours

- EDAD 5110 - Foundations of Education Administration (3) *
  OR
- EDAD 6700 - School District Administration (3)

- EDAD 5120 - School Law (3) *
  OR
- EDAD 6120 - Advanced School Law (3)

- EDAD 5310 - Curriculum for School Leaders (3) *
  OR
- EDAD 6730 - Administration of K-12 Curriculum (3)

- EDAD 5710 - Public School Finance (3) *
  OR

- EDAD 6710 - Advanced School Finance (3)

- EDAD 5960 - Data Analysis for School Leaders (3) *
  OR
- EDAD 6960 - Research Problems (3)

Special Education Director Option: 15 Semester Hours **

- EDSP 5200 - Advanced Education of the Exceptional Child (3) *
- EDSP 5700 - Advanced Organization and Administration of Special Education (3)
- EDSP 6982 - Internship in Special Education Administration (2)
- Advisor Approved Graduate Elective (7-10)

Minimum Graduate Hour Total: 30 Semester Hours

* Designated courses are required if not completed in previous coursework or degree.

** Only available for candidates who hold an advanced degree in educational leadership or who are eligible for School Leader: Grade K-12 (Option 1) or Director (CTE or Special Education) certification as per DESE guidelines.

** Only available to candidates with Special Education certification, Special Education teaching experience, and who are eligible for School Leader: Grade K-12 (Option 1) certification as per DESE guidelines.

Educational Leadership, EdS (61-649) - Superintendent Option (0028) (30 hours)

Student Learning Outcomes

The graduate with the Education Specialist (EdS) degree in Educational Leadership will use the knowledge and skills obtained in the program to promote the success of all students by:

- Developing and implementing a vision for the school to guide the learning of all students and promote continuous school improvement.
- Providing instructional leadership that ensures a viable curriculum, effective instruction, professional learning, a positive school culture, and an equitable learning environment.
- Providing managerial leadership that ensures a safe, functional school environment, effective supervision of personnel, and the equitable and strategic use of school resources.
- Developing positive, supportive relationships with students, staff, parents/guardians, and the community.
- Continuing professional growth, reflective practice, and the ability to apply new knowledge and understanding to drive change and innovations.

The EdS in Educational Leadership program prepares school leaders who are reflective practitioners by requiring candidates to think analytically, practically and creatively about the teaching, learning, and the decision making processes associated with educational leadership.

Program Options

The degree options available include School Leader: Grades K-12, Advanced School Leader, Special Education Director, and Superintendent. The degree requires a minimum of 30 hours, however, course requirements within the options vary depending upon a student's master's degree and/or existing certification.

Admission Requirements

The EdS candidate must have a minimum overall graduate grade point average of 3.25. Applicants who do not meet the above GPA criteria must 1) submit a summative teacher evaluation or a letter of recommendation from a current

school administrator, and 2) achieve a minimum of a 3.50 graduate grade point average during their first 12 hours of graduate study, which must include required degree courses.

School Leader: Grades K-12, leads to "Initial" administrative certification. Candidates should have a master's degree in a content area recognized by the Missouri Department of Elementary and Secondary Education (DESE). Special Education Director and Superintendent are geared toward advanced or additional administrative certification, including students working on Continuous Career certification. Candidates for Special Education Director or Superintendent must have a master's degree in educational administration or hold an administrative certification in an administrative area recognized by the Missouri Department of Elementary and Secondary Education.

Initial DESE certification requirements include the completion of a graduate degree in educational leadership; completion of a course in Education of the Exceptional Child; a valid Missouri teaching certificate; a minimum of three years of teaching; and the satisfactory completion of all requirements established by DESE, including passing scores on required assessments. Each administrator certification has specific pre-requisite credentialing and experience regulations applicable to that position. The EdS in Educational Leadership meets the degree requirements for Continuous Career Certification by DESE.

An applicant for an initial School Leader: Grades K-12 or Superintendent administrator certificate must receive a recommendation for DESE certification from the UCM Director of Clinical Services and Certification. Recommendation will be based upon the completion of all requirements established by DESE. Inquiries regarding DESE certification in school administration can be directed to the UCM Director of Clinical Services and Certification at 660-543-8441. For information concerning the degree contact the Educational Leadership program coordinator in the School of Professional Education and Leadership.

Required Graduate Courses: 15 Semester Hours

- EDAD 5110 - Foundations of Education Administration (3) *
  OR
- EDAD 6700 - School District Administration (3)

- EDAD 5120 - School Law (3) *
  OR
- EDAD 6120 - Advanced School Law (3)

- EDAD 5310 - Curriculum for School Leaders (3) *
  OR
- EDAD 6730 - Administration of K-12 Curriculum (3)

- EDAD 5710 - Public School Finance (3) *
  OR
- EDAD 6710 - Advanced School Finance (3)

- EDAD 5960 - Data Analysis for School Leaders (3) *
  OR
- EDAD 6960 - Research Problems (3)

Superintendent Option: 15 Semester Hours **

- EDAD 5730 - School Personnel Administration (3) *
- EDAD 6720 - School Facilities (3)
- EDAD 6760 - Politics and School Leadership (3)
- EDAD 6972 - Internship: Central Office Administration (2) (4)

- Advisor Approved Graduate Elective (2-5)

Minimum Graduate Hour Total: 30 Semester Hours

* Designated courses are required if not completed in previous coursework or degree.

** Only available for candidates who hold an advanced degree in educational leadership or who are eligible for School Leader: Grade K-12 (Option 1) or Director (CTE or Special Education) certification as per DESE guidelines.

** Superintendent program of study must include EDAD 6120, EDAD 6700, EDAD 6710, EDAD 6730, and EDAD 6960 from the required courses section.

Educational Leadership, MSE (51-648) K-12 Principal Option (0036) (34 hours)

Student Learning Outcomes

The graduate with the Master of Science in Education degree in Educational Leadership will use the knowledge and skills obtained in the program to promote the success of all students by:

- Developing and implementing a vision for the school to guide the learning of all students and promote continuous school improvement.
- Providing instructional leadership that ensures a viable curriculum, effective instruction, professional learning, a positive school culture, and an equitable learning environment.
- Providing managerial leadership that ensures a safe, functional school environment, effective supervision of personnel, and the equitable and strategic use of school resources.
- Developing positive, supportive relationships with students, staff, parents/guardians, and the community.
- Continuing professional growth, reflective practice, and the ability to apply new knowledge and understanding to drive change and innovations.

The M.S.E. in Educational Leadership program prepares school leaders who are reflective practitioners by requiring candidates to think analytically, practically and creatively about the teaching, learning, and the decision making processes associated with educational leadership.

Admission Requirements

A student who holds or is eligible for a valid Missouri teaching certificate and has teaching experience may pursue the Master of Science in Education Degree in Educational Leadership.

To be accepted, a student must have a minimum overall undergraduate grade point average of 2.75 or a 3.00 grade point average during the last 60 semester hours of undergraduate study. Applicants who do not meet any of the above GPA criteria must 1) submit a summative teacher evaluation or a letter of recommendation from a current school administrator, and 2) achieve a minimum of a 3.50 graduate grade point average during their first 12 hours of graduate study, which must include required degree courses.

The M.S.E. in Educational Leadership requires a minimum of 34 semester hours. Two semesters of internship are required and represents a significant practicum component within the program. Students who currently hold a UCM masters degree in education or in an education-related field are eligible for the 24 hour 2nd masters degree option available to UCM graduates, however this program of study may not meet DESE certification requirements.

Upon acceptance, the student will be assigned an adviser to assist in reviewing program requirements, including required and elective courses, enrollment procedures, internship requirements, timeframe, graduation requirements, and state testing requirements. Working with their adviser, students should become familiar with MyCentral, student email, and the degree audit.

The M.S.E. in Educational Leadership includes the course requirements for initial certification by the Missouri Department of Elementary and Secondary Education (DESE) for the School Leader: Grades K-12 administrator certificate. Initial certification requirements include the completion of a masters degree in educational leadership; completion of a course in Education of the Exceptional Child; a valid Missouri teaching certificate; a minimum of three years of teaching experience; and the satisfactory completion of all requirements established by DESE, including passing scores on required assessments.

An applicant for an initial School Leader: Grades K-12 certificate must receive a recommendation for DESE certification from the UCM Director of Clinical Services and Certification. Recommendation will be based upon the completion of all requirements established by DESE. Inquiries regarding DESE certification in school administration can be directed to the UCM Director of Clinical Services and Certification at 660-543-8441. For information concerning degree contact the Educational Leadership program coordinator in the Department of Counseling and Educational Leadership.

Required Graduate Courses: 24 Semester Hours

- EDAD 5110 - Foundations of Education Administration (3)
- EDAD 5120 - School Law (3)
- EDAD 5130 - School Supervision (3)
- EDAD 5710 - Public School Finance (3)
- EDAD 5770 - Instructional Leadership and School Improvement (3)
- EDAD 5960 - Data Analysis for School Leaders (3)
- EDAD 6160 - School and Community Relations (3)

- EDAD 5310 - Curriculum for School Leaders (3)
  OR
- EDFL 5410 - Advanced Curriculum Development and Assessment (3)

Option 1: K-12 Principal: 10 Semester Hours (0036)

- EDAD 5620 - K-12 Administration (3)
- EDAD 6969 - Internship in School Administration I (2)
- EDAD 6971 - Internship in School Administration II (2)

Approved Electives: 3 Semester Hours

- EDAD 5150 - Ethics in Leadership (3)
- EDSP 5200 - Advanced Education of the Exceptional Child (3)

Minimum Graduate Hour Total: 34 Semester Hours

Professional Leadership, EdS (61-686) - Counseling Option (0034) (30 hours)

Student Learning Outcomes

The graduate with an Education Specialist degree in Professional Leadership will use the knowledge and skills obtained in the program to:

- Apply research methods to interpret, describe, and infer from existing or newly generated data.
- Provide leadership to one's own professional discipline.
- Plan, conduct, and analyze scientific research in one's discipline.

Admission Requirements

This advanced program is designed for individuals who are currently involved in or planning careers in a professional leadership position. To be accepted into this program, students must: (1) have earned a master's degree in the area of specialization or have completed 15 semester hours of appropriate background courses as determined by the Department at either the undergraduate or graduate level; and (2) have achieved a cumulative grade point average of 3.25 in the master's degree.

Applicants who do not meet the above criteria will be classified as a "nondegree student" until they: (1) provide evidence of having completed 15 semester hours of background courses as determined by the Department; and (2) obtain a 3.5 GPA during the first 12 hours of graduate study in courses appropriate to the degree program and consistent with UCM's graduate policy.

At least 18 semester hours of the approved program must have been at the 5000/6000 level. If the approved program of study is more than 36 semester hours, at least fifty-percent of the semester credit hours must have been at the 5000/6000 level. Courses used to fulfill the minimum number of semester hours at the 5000/6000 level must be in courses taught only to graduate students. A minimum of six of these hours must be at the 6000 level.

Required Graduate Courses: 6-14 Semester Hours

Research Methods and Data Analysis: 3-6 Semester Hours

- COUN 5810 - Program Evaluation and Research in Counseling (3)
  OR
- CTE 5900 - Introduction to Research Methods (3)
  OR
- CTE 5910 - Qualitative Research (3) **
  OR
- CTE 6100 - Quantitative Analysis and Interpretation (3) **
  OR
- LIS 5900 - Research Methods in Library Science (3)
  OR
- LIS 6900 - Research Problems (3)
  OR
- PSY 5050 - Statistics for the Behavioral Sciences (3)

Capstone: 3-8 Semester Hours

- COUN 6800 - Readings in Professional Counseling (1-5)
  OR
- COUN 6890 - Thesis (3-6)
  OR
- COUN 6910 - Internship in Professional Counseling (3-6) *

Electives: 16-24 Semester Hours

Students select 16-24 hours of appropriate elective coursework consistent with their career goals and University requirements. Elective courses are contingent on program advisor and graduate program coordinator approval.

Minimum Graduate Hour Total: 30 Semester Hours

* Eligibility for COUN 6910 will be determined by previous course work prerequisites taken through program of study electives.

** CTE 5910 only available to students who have completed CTE 5900 or equivalent during previous work; CTE 6100 only available to students who have completed CTE 5900 , LIS 5900, COUN 5810, or equivalent during previous work.

Department of Early, Elementary, Middle and Physical Education

Advanced Teaching in Early Childhood Education Graduate Certificate (50-6850) (15 hours)

Student Learning Outcomes - A student with a Graduate Certificate in Advanced Teaching in Early Childhood Education will use the knowledge and skills obtained in the program to:

- Apply the core principles and values, guided by theoretical perspectives of the profession, for teaching and leading today's diverse early childhood programs

This certificate is designed to support and enhance teaching skills within early childhood education. The Advanced Teaching in Early Childhood Education Certificate aligns with the Core Competencies for Early Childhood and Youth Professionals (Missouri and Kansas) and the revised 2020 National Association for the Education of Young Children (NAEYC) Professional Standards and Competencies for Early Childhood Educators. The certificate consists of Master's level Early Childhood Education courses approved by the Missouri Department of Higher Education. This certificate is designed to support and engage early childhood educators in the classroom promoting learning, development, achievement, and well-being of each early childhood student.

Admission Requirements:

- A minimum 2.5 GPA on any courses completed prior to admission.
- Completed bachelor's degree in early childhood education or a related field of study.

Required Graduate Courses: 15 Semester Hours

- ECEL 5710 - Early Childhood Education: A Constructivist Approach for 21st Century Thinkers (3)
- ECEL 5740 - Play and Advocacy in the 21st Century (3)
- ECEL 5750 - Multicultural Education Beliefs, Curriculum and Pedagogy (3)
- ECEL 5780 - Making and Learning: STEM in Early Childhood Education (3)
- ECEL 5785 - Teaching Strategies and The Classroom Environment for Active, Engaged Learning (3)

Early Childhood Education, MSE (51-685) - Leadership Option (6853) (30 hours)

Student Learning Outcomes

The graduate with a Master of Science in Education degree in Early Childhood Education (ECE) will use the knowledge and skills obtained in the program to achieve the following professional skills:

- Apply the core principles and values, guided by theoretical perspectives, of the profession, for teaching and leading today's diverse early childhood programs
- Acquire fundamental knowledge for implementing play-based curriculum to teach, lead and advocate in the early childhood setting
- Develop a strong sense of ethical conduct within early childhood teaching, learning, and business management
- Analyze and evaluate multicultural education theories, research, ideals and practices impacting early childhood education

The Master of Science in Education in Early Childhood Education (ECE) is designed to develop the candidate's understandings of early childhood development, theoretical foundations to early development, and application in today's society, with uniquely selected coursework focused on teaching, leadership within the field of early childhood education, or early childhood special education. Each candidate must fulfill 21 hours of core coursework, with 9 additional hours of completed coursework in a selected option.

Program Options

The MSE in ECE has three options available. The first option is focused on preparing early childhood educators for teaching in the field of early childhood education (birth through 3rd grade). This option is referred to as the Teaching Strand. The second option is designed for those desiring leadership positions within the field of early childhood education. This option is referred to as the Leadership Strand. The third option is concentrated on preparing early childhood educators for teaching in inclusive childcare settings, or in early childhood special education specifically. This option is referred to as the Special Education Strand.

Admission Requirements

To be accepted into the Master of Science in Early Childhood Education (ECE) degree program, in the School of Teaching & Learning, a student must:

- Have a minimum cumulative undergraduate grade point average of 2.75.
- Submit proof of teacher certification or professional endorsement for any of the 50 states or territories and have graduated from a CAEP or regionally accredited university.
- Submit a copy of his/her last summative teaching evaluation, or a letter from a school superintendent, principal, director, or professor attesting to teaching skills and/or graduate studies potential.

International applicants should meet these requirements in comparable ways.

Required Graduate Courses: 21 Semester Hours

- ECEL 5710 - Early Childhood Education: A Constructivist Approach for 21st Century Thinkers (3)
- ECEL 5740 - Play and Advocacy in the 21st Century (3)
- ECEL 5750 - Multicultural Education Beliefs, Curriculum and Pedagogy (3)
- ECEL 5790 - Collaborative Practice in Early Childhood Education (3)
- ECEL 5920 - Childhood Research and Development (3)
- HDFS 5500 - Research Methods in Human Development and Family Science (3)
- HDFS 5580 - Resilience in Children and Adolescents (3)

Leadership Option Electives: 9 Semester Hours

Select 3 courses from the list below:

- HDFS 5850 - Family Policy and Advocacy (3)
- HDFS 6410 - Diversity and Family Interventions (3)
- ECEL 5240 - Instructional Leadership and Analysis (3)
- ECEL 5360 - Instructional Leadership Trends and Issues in Childhood Education (3)
- ECEL 5715 - An Ecological Perspective of Family Engagement in Early Childhood Education (3)
- ECEL 5725 - Early Childhood Business and Legal Issues (3)
- INST 5101 - Integrating Technology into Teaching (3)

Minimum Graduate Hour Total: 30 Semester Hours

Early Childhood Education, MSE (51-685) - Special Education Option (6851) (30 hours)

Student Learning Outcomes

The graduate with a Master of Science in Education degree in Early Childhood Education (ECE) will use the knowledge and skills obtained in the program to achieve the following professional skills:

- Apply the core principles and values, guided by theoretical perspectives, of the profession, for teaching and leading today's diverse early childhood programs
- Acquire fundamental knowledge for implementing play-based curriculum to teach, lead and advocate in the early childhood setting
- Develop a strong sense of ethical conduct within early childhood teaching, learning, and business management
- Analyze and evaluate multicultural education theories, research, ideals and practices impacting early childhood education

The Master of Science in Education in Early Childhood Education (ECE) is designed to develop the candidate's understandings of early childhood development, theoretical foundations to early development, and application in today's society, with uniquely selected coursework focused on teaching, leadership within the field of early childhood education, or early childhood special education. Each candidate must fulfill 21 hours of core coursework, with 9 additional hours of completed coursework in a selected option.

Program Options

The MSE in ECE has three options available. The first option is focused on preparing early childhood educators for teaching in the field of early childhood education (birth through 3rd grade). This option is referred to as the Teaching Strand. The section option is designed for those desiring leadership positions within the field of early childhood education. This option is referred to as the Leadership Strand. The third option is concentrated on preparing early childhood educators for teaching in inclusive childcare settings, or in early childhood special education specifically. This option is referred to as the Special Education Strand.

Admission Requirements

To be accepted into the Master of Science in Early Childhood Education (ECE) degree program, in the School of Teaching & Learning, a student must:

- Have a minimum cumulative undergraduate grade point average of 2.75.
- Submit proof of teacher certification or professional endorsement for any of the 50 states or territories and have graduated from a CAEP or regionally accredited university.
- Submit a copy of his/her last summative teaching evaluation, or a letter from a school superintendent, principal, director, or professor attesting to teaching skills and/or graduate studies potential.

International applicants should meet these requirements in comparable ways.

Required Graduate Courses: 21 Semester Hours

- ECEL 5710 - Early Childhood Education: A Constructivist Approach for 21st Century Thinkers (3)
- ECEL 5740 - Play and Advocacy in the 21st Century (3)
- ECEL 5750 - Multicultural Education Beliefs, Curriculum and Pedagogy (3)
- ECEL 5790 - Collaborative Practice in Early Childhood Education (3)
- ECEL 5920 - Childhood Research and Development (3)
- HDFS 5500 - Research Methods in Human Development and Family Science (3)
- HDFS 5580 - Resilience in Children and Adolescents (3)

Special Education Option Electives: 9 Semester Hours

Select 3 courses from the list below:

- EDAD 5120 - School Law (3)
- EDSP 5100 - Introduction to Graduate Study in Special Education (3)
- EDSP 5200 - Advanced Education of the Exceptional Child (3)
- EDSP 5320 - Introduction to Early Childhood Special Education (3)
- EDSP 5350 - Evaluation of Students with Disabilities (3)
- EDSP 5510 - Fundamentals of Autism Spectrum Disorders (3)
- EDSP 5700 - Advanced Organization and Administration of Special Education (3)

Minimum Graduate Hour Total: 30 Semester Hours

Early Childhood Education, MSE (51-685) - Teaching Option (6852) (30 hours)

Student Learning Outcomes

The graduate with a Master of Science in Education degree in Early Childhood Education (ECE) will use the knowledge and skills obtained in the program to achieve the following professional skills:

- Apply the core principles and values, guided by theoretical perspectives, of the profession, for teaching and leading today's diverse early childhood programs
- Acquire fundamental knowledge for implementing play-based curriculum to teach, lead and advocate in the early childhood setting
- Develop a strong sense of ethical conduct within early childhood teaching, learning, and business management
- Analyze and evaluate multicultural education theories, research, ideals and practices impacting early childhood education

The Master of Science in Education in Early Childhood Education (ECE) is designed to develop the candidate's understandings of early childhood development, theoretical foundations to early development, and application in today's society, with uniquely selected coursework focused on teaching, leadership within the field of early childhood education, or early childhood special education. Each candidate must fulfill 21 hours of core coursework, with 9 additional hours of completed coursework in a selected option.

Program Options

The MSE in ECE has three options available. The first option is focused on preparing early childhood educators for teaching in the field of early childhood education (birth through 3rd grade). This option is referred to as the Teaching Strand. The section option is designed for those desiring leadership positions within the field of early childhood education. This option is referred to as the Leadership Strand. The third option is concentrated on preparing early childhood educators for teaching in inclusive childcare settings, or in early childhood special education specifically. This option is referred to as the Special Education Strand.

Admission Requirements

To be accepted into the Master of Science in Early Childhood Education (ECE) degree program, in the School of Teaching & Learning, a student must:

- Have a minimum cumulative undergraduate grade point average of 2.75.
- Submit proof of teacher certification or professional endorsement for any of the 50 states or territories and have graduated from a CAEP or regionally accredited university.
- Submit a copy of his/her last summative teaching evaluation, or a letter from a school superintendent, principal, director, or professor attesting to teaching skills and/or graduate studies potential.

International applicants should meet these requirements in comparable ways.

Required Graduate Courses: 21 Semester Hours

- ECEL 5710 - Early Childhood Education: A Constructivist Approach for 21st Century Thinkers (3)
- ECEL 5740 - Play and Advocacy in the 21st Century (3)
- ECEL 5750 - Multicultural Education Beliefs, Curriculum and Pedagogy (3)
- ECEL 5790 - Collaborative Practice in Early Childhood Education (3)
- ECEL 5920 - Childhood Research and Development (3)
- HDFS 5500 - Research Methods in Human Development and Family Science (3)
- HDFS 5580 - Resilience in Children and Adolescents (3)

Teaching Option Electives: 9 Semester Hours

Select 3 courses from the list below:

- HDFS 6410 - Diversity and Family Interventions (3)
- ECEL 5720 - Curriculum, Assessment, and Instruction (3)
- ECEL 5730 - Exemplary Instructional Practices (3)
- ECEL 5780 - Making and Learning: STEM in Early Childhood Education (3)
- ECEL 5785 - Teaching Strategies and The Classroom Environment for Active, Engaged Learning (3)
- ECEL 5850 - Instructional Leadership to Enhance Children's Physical & Social World (3)
- INST 5101 - Integrating Technology into Teaching (3)

Minimum Graduate Hour Total: 30 Semester Hours

Elementary Education/Curriculum and Instruction, MSE (51-721) (30 hours)

Student Learning Outcomes

The graduate with a Master of Science in Education degree in Elementary Education will use the knowledge and skills obtained in the program to:

- Demonstrate a commitment to students and their learning.
- Think systematically about his/her practice and learn from experience.
- Demonstrate his/her commitment as a member of learning communities.

The Master of Science in Education degree in Elementary Education offers courses that are relevant to educators in early childhood and elementary education. The M.S.E. in Elementary Education is designed to address the five propositions of accomplished teaching as prescribed by the National Board for Professional Teaching Standards (NBPTS) for the early and middle childhood education areas.

Admission Requirements

The M.S.E. degree requires a minimum of 30 hours. To be accepted into the Master of Science in Education degree program in the Department of Early, Elementary, Middle and Physical Education, a student must: (a) have a minimum undergraduate grade point average of 2.5; (b) submit proof of teacher certification or professional endorsement from any of the 50 states or territories and have graduated from an NCATE or regionally accredited university; (c) submit a copy of his/her last summative teaching evaluation (i.e., a PBTE or similar evaluation form), or a letter from a school superintendent, principal or professor attesting to teaching skills and/or graduate studies potential.

The following requirements apply to the M.S.E. Elementary Education degree program - A student may apply a maximum of six hours of graduate study in Special Projects (ECEL 5000) courses. (Students must consult and get consent from their graduate adviser for exceptions). A maximum of 12 graduate semester hours taken prior to the

development of a program of study at UCM and approved by the student's graduate program adviser may be accepted on a program of study. ECEL 5920 must be taken within the first 12 hours of the program.

Required Core Courses: 18 Semester Hours

- ECEL 5240 - Instructional Leadership and Analysis (3)
- ECEL 5720 - Curriculum, Assessment, and Instruction (3)
- ECEL 5730 - Exemplary Instructional Practices (3)
- ECEL 5920 - Childhood Research and Development (3)
- ECEL 6800 - Synthesis of Practice for Childhood Educators (3)
- ECEL 6810 - MSE Capstone Project for Childhood Educators (3)

Select One of the 2 Areas: 12 Semester Hours

Area 1 - Accomplished Teacher: 12 Semester Hours

- ECEL 5170 - Advanced Foundations of Childhood Education (3)
- ECEL 5850 - Instructional Leadership to Enhance Children's Physical & Social World (3)
- ECEL 5870 - Computer Science for K-6 Learning (3)
- EDAD 5150 - Ethics in Leadership (3)

Area 2 - Instructional Coaching: 12 Semester Hours

- ECEL 5350 - Mentoring: The Instructional Coach Approach (3)
- ECEL 5360 - Instructional Leadership Trends and Issues in Childhood Education (3)

Approved Instructional Coaching Electives: 6 Semester Hours

- ECEL 5860 - Mathematical Mentoring and Coaching (3)
- EDAD 5110 - Foundations of Education Administration (3)
- EDAD 5120 - School Law (3)
- EDAD 5770 - Instructional Leadership and School Improvement (3)
- EDFL 5150 - Methods for Teaching ESOL (3)
- EDFL 5240 - Advanced Language Arts Methods: Culture and Communication (3)
- EDFL 5270 - Teaching Culturally and Linguistically Diverse Students (3)
- EDFL 5535 - Assessment of English Language Learners in K-12 (3)
- EDFL 6220 - The Literacy Coach (3)
- INST 5100 - Foundations of Educational Technology (3)
- INST 5390 - Educational Technology Leadership (3)

Minimum Graduate Hour Total: 30 Semester Hours

Elementary Mathematics Specialist Graduate Certificate (50-981) (24 hours)

Student Learning Outcomes - The graduate learning outcomes for a Graduate Certificate in Elementary Mathematics Specialist are based upon National Council of Teachers of Mathematics (NCTM) and the Association of Mathematics Teacher Educators (AMTE) Standards:

- Demonstrate and apply knowledge of integrating mathematics concepts and procedures.

- Provide evidence demonstrating student growth as a result of their instruction.
- Demonstrate mathematics-focused instructional leadership.

The following admission requirements apply to the Graduate Certificate in Elementary Mathematics Specialist program:

- Current state teaching certificate
- Minimum 2.50 undergraduate GPA

Graduates of the EMS program who hold a Missouri state teaching certificate will be eligible for the Missouri Department of Elementary and Secondary Education (DESE) add-on teaching certificate in Elementary Mathematics Specialist.

Required Graduate Courses: 24 Semester Hours

- ECEL 5805 - Number and Operations for Elementary Mathematics Specialists (3)
- ECEL 5815 - Rational Numbers and Proportional Relationships for Elementary Mathematics Specialists (3)
- ECEL 5825 - Algebraic Reasoning for Elementary Mathematics Specialists (3)
- ECEL 5835 - Geometry and Measurement for Elementary Mathematics Specialists (3)
- ECEL 5840 - Data and Probability for Elementary Mathematics Specialists (3)
- ECEL 5800 - Internship in Number and Operations for Elementary Mathematics Specialists (1)
- ECEL 5810 - Internship in Rational Numbers and Proportional Reasoning for Elementary Mathematics Specialists (1)
- ECEL 5820 - Internship in Algebraic Reasoning for Elementary Mathematics Specialists (1)
- ECEL 5830 - Internship in Geometry and Measurement for Elementary Mathematics Specialists (1)
- ECEL 5855 - Foundations of Mathematical Leadership for Elementary Mathematics Specialists (2)
- ECEL 5860 - Mathematical Mentoring and Coaching (3)

Minimum Graduate Hour Total: 24 Semester Hours

Elementary Mathematics Specialist, EdS (61-983) (30 hours)

Student Learning Outcomes

Learning outcomes for the Educational Specialist (Ed.S.) degree in Elementary Mathematics Specialist are based upon National Council of Teachers of Mathematics (NCTM) and the Association of Mathematics Teacher Educators (AMTE) Standards:

- Content Knowledge- Effective elementary mathematics specialists demonstrate and apply knowledge of major mathematics concepts and procedures.
- Impact of Student Learning- Effective elementary mathematics specialists provide evidence demonstrating student growth as a result of their instruction.
- Professional Knowledge and Skills- Effective elementary mathematics specialists demonstrate mathematics-focused instructional leadership.

Admission Requirements

- Current state teaching certificate
- Minimum 2.50 undergraduate GPA
- Master's degree in any area

Graduates of the EMS program who hold a Missouri state teaching certificate will be eligible for the Missouri Department of Elementary and Secondary (DESE) add-on teaching certificate in Elementary Mathematics Specialist.

Required Graduate Courses: 30 Semester Hours

- ECEL 5805 - Number and Operations for Elementary Mathematics Specialists (3)
- ECEL 5815 - Rational Numbers and Proportional Relationships for Elementary Mathematics Specialists (3)
- ECEL 5825 - Algebraic Reasoning for Elementary Mathematics Specialists (3)
- ECEL 5835 - Geometry and Measurement for Elementary Mathematics Specialists (3)
- ECEL 5840 - Data and Probability for Elementary Mathematics Specialists (3)
- ECEL 5800 - Internship in Number and Operations for Elementary Mathematics Specialists (1)
- ECEL 5810 - Internship in Rational Numbers and Proportional Reasoning for Elementary Mathematics Specialists (1)
- ECEL 5820 - Internship in Algebraic Reasoning for Elementary Mathematics Specialists (1)
- ECEL 5830 - Internship in Geometry and Measurement for Elementary Mathematics Specialists (1)
- ECEL 5855 - Foundations of Mathematical Leadership for Elementary Mathematics Specialists (2)
- ECEL 5860 - Mathematical Mentoring and Coaching (3)
- ECEL 6900 - Readings in Elementary Education (3)

- ECEL 6990 - Thesis (3)
  OR
- EDAD 6960 - Research Problems (3)

Minimum Graduate Hour Total: 30 Semester Hours

Elementary Mathematics Specialist, MSE (51-980) (30 hours)

Student Learning Outcomes

The graduate learning outcomes for a Master of Science in Education degree in Elementary Mathematics Specialist are based upon National Council of Teachers of Mathematics (NCTM) and the Association of Mathematics Teacher educators (AMTE) Standards:

- Demonstrate and apply knowledge of integrating mathematics concepts and procedures.
- Provide evidence demonstrating student growth as a result of their instruction.
- Demonstrate mathematics-focused instructional leadership.

Admission Requirements

The following admission requirements apply to the M.S.E Elementary Mathematics Specialist degree program: Candidates must hold a current state teaching certificate and a 2.50 minimum undergraduate GPA.

Graduates of the EMS program who hold a Missouri state teaching certificate will be eligible for Missouri Department of Elementary and Secondary Education add-on teaching certificate in Elementary Mathematics Specialist.

Required Graduate Courses: 30 Semester Hours

- ECEL 5800 - Internship in Number and Operations for Elementary Mathematics Specialists (1)
- ECEL 5805 - Number and Operations for Elementary Mathematics Specialists (3)
- ECEL 5810 - Internship in Rational Numbers and Proportional Reasoning for Elementary Mathematics Specialists (1)
- ECEL 5815 - Rational Numbers and Proportional Relationships for Elementary Mathematics Specialists (3)
- ECEL 5820 - Internship in Algebraic Reasoning for Elementary Mathematics Specialists (1)
- ECEL 5825 - Algebraic Reasoning for Elementary Mathematics Specialists (3)
- ECEL 5830 - Internship in Geometry and Measurement for Elementary Mathematics Specialists (1)
- ECEL 5835 - Geometry and Measurement for Elementary Mathematics Specialists (3)

- ECEL 5840 - Data and Probability for Elementary Mathematics Specialists (3)
- ECEL 5855 - Foundations of Mathematical Leadership for Elementary Mathematics Specialists (2)
- ECEL 5860 - Mathematical Mentoring and Coaching (3)
- ECEL 5920 - Childhood Research and Development (3)
- Graduate Electives in Approved Area: (3)

Minimum Graduate Hour Total: 30 Semester Hours

Leadership and Management in Early Childhood Education Graduate Certificate (50-6854) (15 hours)

Student Learning Outcomes - A student with a Graduate Certificate in Leadership and Management in Early Childhood Education will use the knowledge and skills obtained in the program to:

- Develop a strong sense of ethical conduct within early childhood teaching, learning, and business management

This certificate is designed to support and enhance leadership skills within early childhood education. The Leadership in Early Childhood Education Certificate aligns with the Missouri Association for the Education of Young Children (MO AEYC) Director Credential, meeting criteria upon completion. The certificate consists of Master's level Early Childhood Education courses approved by the Missouri Department of Higher Education. This certificate is designed to support and engage early education leaders in and outside the classroom promoting learning, achievement, development, and well-being of each early childhood student through leadership development.

Admission Requirements:

- A minimum 2.5 GPA on any courses completed prior to admission.
- Completion of a bachelor's degree in early childhood education or a related field.

Required Graduate Courses: 15 Semester Hours

- ECEL 5715 - An Ecological Perspective of Family Engagement in Early Childhood Education (3)
- ECEL 5725 - Early Childhood Business and Legal Issues (3)
- ECEL 5750 - Multicultural Education Beliefs, Curriculum and Pedagogy (3)
- ECEL 5790 - Collaborative Practice in Early Childhood Education (3)
- EDAD 5130 - School Supervision (3)

Physical Education, MS (53-683) - Coaching Option (6832) (33 hours)

This program is designed to prepare students for careers in areas associated with physical education and sports. The student has a choice of area specialization from one of the following options: Pedagogy (Teaching Physical Education) and Coaching.

Student Learning Outcomes

The graduate with a Master of Science degree in Physical Education with an Option of Coaching will use the knowledge and skills obtained in the program to:

- Students will be able to apply a variety of skills and strategies, used within the field of coaching, to research, organize and synthesize information.
- Students will demonstrate knowledge in the holistic approach to understanding behavior and motivation profiles, and identify strategies used to impact these behaviors and profiles in athletic competition.

- Students will apply appropriate research methodology in the fields of motor learning, cognitive learning and performance as applied to coaching.
- Students will utilize contemporary pedagogical research methodology to gain knowledge related to effective coaching practices.
- Students will be able to create and discuss a variety of assessment tools which facilitate learning of athletes in sports settings.

Admission Requirements

Requirements for being admitted into the MS in Physical Education program: 2.5 College GPA, three letters of recommendation, and an official transcript from the institution where they earned or are earning their bachelor's degree.

Required Core Courses: 21 Semester Hours

- PE 5150 - Introduction to Applied Research in Physical Education and Coaching (3)
- PE 5200 - Effective Teaching in Physical Education (3)
- PE 5420 - Growth and Physical Performance of the Preschool and Elementary Child (3)
- PE 5450 - Physical Activity Promotion (3)
- PE 5840 - Principles of Motor Learning (3)
- PE 6190 - Trends and Issues in Physical Education and Coaching (3)
- PE 6950 - Professional Seminar in Physical Education (3)

Required Coaching Option Courses: 12 Semester Hours

- PE 5175 - Introduction to Standards-Based Coaching (3)
- PE 5350 - Philosophy & Ethics in Coaching (3)
- PE 5550 - Organization & Administration in Coaching (3)
- PE 5855 - Motivational Aspects of Coaching (3)

Minimum Graduate Hour Total: 33 Semester Hours

Physical Education, MS (53-683) - Pedagogy Option (6831) (33 hours)

This program is designed to prepare students for careers in areas associated with physical education and sports. The student has a choice of area specialization from one of the following options: Pedagogy (Teaching Physical Education) and Coaching.

Student Learning Outcomes

The graduate with a Master of Science degree in Physical Education with an Option of Pedagogy will use the knowledge and skills obtained in the program to:

- Students will be able will be able to apply a variety of skills and strategies, used within the fields of physical education, to research, organize and synthesize information.
- Students will demonstrate knowledge in the holistic approach to understanding behavior and motivation profiles, and identify strategies used to impact these behaviors and profiles.
- Students will apply appropriate research methodology in the fields of motor learning, cognitive learning and performance.
- Students will utilize contemporary pedagogical research methodology to gain knowledge related to effective physical education.

- Students will be able to create and discuss a variety of assessment tools which facilitate learning in a physical education setting.

Admission Requirements

Requirements for being admitted into the MS in Physical Education program: 2.5 College GPA, three letters of recommendation, and an official transcript from the instiution where they earned or are unearning their bachelor's degree.

Required Core Courses: 21 Semester Hours

- PE 5150 - Introduction to Applied Research in Physical Education and Coaching (3)
- PE 5200 - Effective Teaching in Physical Education (3)
- PE 5420 - Growth and Physical Performance of the Preschool and Elementary Child (3)
- PE 5450 - Physical Activity Promotion (3)
- PE 5840 - Principles of Motor Learning (3)
- PE 6190 - Trends and Issues in Physical Education and Coaching (3)
- PE 6950 - Professional Seminar in Physical Education (3)

Required Pedagogy Option Courses: 12 Semester Hours

- PE 5370 - Curriculum Theory in Physical Education (3)
- PE 5500 - Behavior Interventions in Physical Education (3)
- PE 5650 - Physical Education for Special Populations (3)
- PE 5950 - Assessment in Physical Education (3)

Minimum Graduate Hour Total: 33 Semester Hours

Department of Educational Foundations and Literacy

Curriculum and Instruction, MSE (51-626) - K-12 Option (0011) (30 hours)

Student Learning Outcomes

The graduate with a Master of Science in Education degree will use the knowledge and skills obtained in the program to:

- Demonstrate a commitment to students and their learning.
- Understand the subjects he/she teaches and how to teach those subjects to students.
- Be responsible for managing and monitoring student learning.
- Think systematically about his/her practice and learn from experience.
- Demonstrate his/her commitment as a member of learning communities.

The Department of Educational Foundations and Literacy Master of Science in Education degrees are designed to address the five propositions of accomplished teaching as prescribed by the National Board for Professional Teaching Standards (NBPTS). Three M.S.E. degree programs are available from the Department of Educational Foundations and Literacy.

Admission Requirements

To be accepted into a Master of Science in Education degree program in the Department of Educational Foundations and Literacy, a student must: (a) have a minimum undergraduate grade point average of 2.5; (b) submit proof of teacher certification or professional endorsement from any of the 50 states or territories and have graduated from an

NCATE or regionally accredited university; (c) submit a copy of his/her last summative teaching evaluation (i.e., a PBTE or similar evaluation form), or a letter from a school superintendent, principal or professor attesting to teaching skills and/or graduate studies potential. International applicants should meet these requirements in comparable ways.

The following requirements apply to M.S.E. degree programs listed above- A student may apply a maximum of six hours of graduate study in EDFL Special Projects courses. (Students must consult and get consent from their graduate adviser for exceptions). A maximum of 12 graduate semester hours taken prior to the development of a program of study at Central and approved by the student's graduate program adviser may be accepted on a program of study. EDFL 5900 or an adviser-approved alternative research course must be taken within the first 12 hours of a program.

Required Graduate Courses: 21 Semester Hours

- EDFL 5120 - Advanced Foundations of Education (3)
- EDFL 5320 - Curriculum Development and Assessment (3)
- EDFL 5340 - Contemporary Instruction: Theory and Practice (3)
- EDFL 5400 - Differentiation in K-12 Learning Environments (3)
- EDFL 5410 - Advanced Curriculum Development and Assessment (3)
- EDFL 5900 - Introduction to Research (3)
- EDFL 6110 - Capstone (3)

K-12 Option Electives: 9 Semester Hours

- Graduate Electives within the Discipline (9)

Minimum Graduate Hour Total: 30 Semester Hours

Curriculum and Instruction, MSE (51-626) - Middle Level Education Option (0012) (30 hours)

Student Learning Outcomes

The graduate with a Master of Science in Education degree will use the knowledge and skills obtained in the program to:

- Demonstrate a commitment to students and their learning.
- Understand the subjects he/she teaches and how to teach those subjects to students.
- Be responsible for managing and monitoring student learning.
- Think systematically about his/her practice and learn from experience.
- Demonstrate his/her commitment as a member of learning communities.

The Department of Educational Foundations and Literacy Master of Science in Education degrees are designed to address the five propositions of accomplished teaching as prescribed by the National Board for Professional Teaching Standards (NBPTS). Three M.S.E. degree programs are available from the Department of Educational Foundations and Literacy.

Admission Requirements

To be accepted into a Master of Science in Education degree program in the Department of Educational Foundations and Literacy, a student must: (a) have a minimum undergraduate grade point average of 2.5; (b) submit proof of teacher certification or professional endorsement from any of the 50 states or territories and have graduated from an NCATE or regionally accredited university; (c) submit a copy of his/her last summative teaching evaluation (i.e., a PBTE or similar evaluation form), or a letter from a school superintendent, principal or professor attesting to teaching skills and/or graduate studies potential. International applicants should meet these requirements in comparable ways.

The following requirements apply to M.S.E. degree programs listed above- A student may apply a maximum of six hours of graduate study in EDFL Special Projects courses. (Students must consult and get consent from their graduate adviser for exceptions). A maximum of 12 graduate semester hours taken prior to the development of a program of study at Central and approved by the student's graduate program adviser may be accepted on a program of study. EDFL 5900 or an adviser-approved alternative research course must be taken within the first 12 hours of a program.

Required Graduate Courses: 24 Semester Hours

- EDFL 5120 - Advanced Foundations of Education (3)
- EDFL 5130 - Middle School Foundations (3)
- EDFL 5340 - Contemporary Instruction: Theory and Practice (3)
- EDFL 5400 - Differentiation in K-12 Learning Environments (3)
- EDFL 5410 - Advanced Curriculum Development and Assessment (3)
- EDFL 5440 - Middle School Curriculum and Instruction (3)
- EDFL 5900 - Introduction to Research (3)
- EDFL 6110 - Capstone (3)

Middle Level Education Option Electives: 6 Semester Hours

- Graduate Electives within the Discipline (6)

Minimum Graduate Hour Total: 30 Semester Hours

Curriculum and Instruction, MSE (51-626) - Secondary Education Option (0013) (30 hours)

Student Learning Outcomes

The graduate with a Master of Science in Education degree will use the knowledge and skills obtained in the program to:

- Demonstrate a commitment to students and their learning.
- Understand the subjects he/she teaches and how to teach those subjects to students.
- Be responsible for managing and monitoring student learning.
- Think systematically about his/her practice and learn from experience.
- Demonstrate his/her commitment as a member of learning communities.

The Department of Educational Foundations and Literacy Master of Science in Education degrees are designed to address the five propositions of accomplished teaching as prescribed by the National Board for Professional Teaching Standards (NBPTS). Three M.S.E. degree programs are available from the Department of Educational Foundations and Literacy.

Admission Requirements

To be accepted into a Master of Science in Education degree program in the Department of Educational Foundations and Literacy, a student must: (a) have a minimum undergraduate grade point average of 2.5; (b) submit proof of teacher certification or professional endorsement from any of the 50 states or territories and have graduated from an NCATE or regionally accredited university; (c) submit a copy of his/her last summative teaching evaluation (i.e., a PBTE or similar evaluation form), or a letter from a school superintendent, principal or professor attesting to teaching skills and/or graduate studies potential. International applicants should meet these requirements in comparable ways.

The following requirements apply to M.S.E. degree programs listed above- A student may apply a maximum of six hours of graduate study in EDFL Special Projects courses. (Students must consult and get consent from their

graduate adviser for exceptions). A maximum of 12 graduate semester hours taken prior to the development of a program of study at Central and approved by the student's graduate program adviser may be accepted on a program of study. EDFL 5900 or an adviser-approved alternative research course must be taken within the first 12 hours of a program.

Required Graduate Courses: 21 Semester Hours

- EDFL 5120 - Advanced Foundations of Education (3)
- EDFL 5320 - Curriculum Development and Assessment (3)
- EDFL 5340 - Contemporary Instruction: Theory and Practice (3)
- EDFL 5400 - Differentiation in K-12 Learning Environments (3)
- EDFL 5410 - Advanced Curriculum Development and Assessment (3)
- EDFL 5900 - Introduction to Research (3)
- EDFL 6110 - Capstone (3)

Secondary Education Option Electives: 9 Semester Hours

- Graduate Electives within the Discipline (9)

Minimum Graduate Hour Total: 30 Semester Hours

English Language Learners, MSE (51-676) - K-12 Option (ELL1) (30 hours)

The MSE in English Language Learners (ELL) is designed to develop the candidate's understandings of the process of additional language acquisition as well as the unique needs of educators working with or planning a career working with culturally and linguistically diverse students. Each candidate must fulfill a practicum.

Program Options

The MSE in ELL has two options available. The first option is focused on preparing K-12 teachers for working with ELL students. The second option is designed for those wishing to teach English abroad or ELL at the college level.

Student Learning Outcomes

A graduate with a Master of Science in Education degree in English Language Learners (ELL) will use the knowledge and skills obtained in the program to achieve the following professional skills:

- Demonstrate an understanding of current conceptual and theoretical trends, issues and concerns in the fields of TESOL and Applied Linguistics including an understanding of the English language as a system and how additional languages are acquired.
- Demonstrate an ability to identify and present effective classroom applications of language concepts and theories for teaching ELLs by designing a range of materials and tools to address diverse learner needs.
- Demonstrate an understanding of how culture affects students' learning.

Admission Requirements

To be accepted into the Master of Science in Education in English Language Learners (ELL) Education degree program, K-12 Option, in the School of Teaching and Learning , a student must:

a. have a minimum cumulative undergraduate grade point average of 2.75
b. submit proof of teacher certification or professional endorsement for any of the 50 states or territories and have graduated from a CAEP or regionally accredited university

c. submit a copy of his/her last summative teaching evaluation (i.e., a PBTE or similar evaluation form) or a letter from a school superintendent, principal, or professor attesting to teaching skills and/or graduate studies potential.

Applicants who do not meet this criteria must design, with a department advisor or graduate coordinator, a conditional program (including the program's research course). International applicants should meet these requirements in comparable ways. International students must meet minimum English language requirements as determined by UCM.

Connection to Certification

Students interested in the Missouri ELL certification endorsement are advised to consult with their advisor, the Program Coordinator, and the UCM director of Clinical Services and Certification. Additional courses may be required for the Missouri ELL certification endorsement, dependent on transcript analysis of undergraduate and graduate work.

Required Graduate Courses: 12 Semester Hours

- EDFL 5150 - Methods for Teaching ESOL (3)
- EDFL 5530 - Sociolinguistics (3)
- ENGL 5120 - Second Language Acquisition (3)
- ENGL 5410 - Linguistics (3)

K-12 Option (ELL1): 18 Semester Hours

- EDFL 5225 - Ethnographic Research (3)
- EDFL 5460 - K-12 Curriculum for ELL (3)
- EDFL 5535 - Assessment of English Language Learners in K-12 (3)
- EDFL 5950 - Introduction to the Study of Language for ESOL Teachers (3)
- EDFL 5960 - K-12 Clinical Field Experience with ELL (3)

- EDFL 5305 - Working with Immigrant and Displaced Students (3)
  OR
- EDFL 5955 - Reading Interventions for English Language Learners (3)

Minimum Graduate Hour Total: 30 Semester Hours

English Language Learners, MSE (51-676) - TESL Option (ELL2) (30 hours)

The MSE in English Language Learners (ELL) is designed to develop the candidate's understandings of the process of additional language acquisition as well as the unique needs of educators working with or planning a career working with culturally and linguistically diverse students. Each candidate must fulfill a practicum.

Program Options

The MSE in ELL has two options available. The first option is focused on preparing K-12 teachers for working with ELL students. The second option is designed for those wishing to teach English abroad or ELL at the college level.

Student Learning Outcomes

A graduate with a Master of Science in Education degree in English Language Learners (ELL) will use the knowledge and skills obtained in the program to achieve the following professional skills:

- Demonstrate an understanding of current conceptual and theoretical trends, issues and concerns in the fields of TESOL and Applied Linguistics including an understanding of the English language as a system and how additional languages are acquired.
- Demonstrate an ability to identify and present effective classroom applications of language concepts and theories for teaching ELLs by designing a range of materials and tools to address diverse learner needs.
- Demonstrate an understanding of how culture affects students' learning.

Admission Requirements

To be accepted into the Master of Science in Education in English Language Learners (ELL) Education degree program, TESL Option, in the School of Teaching and Learning , a student must have a minimum cumulative undergraduate grade point average of 2.75. Applicants who do not meet this criteria must design, with a department advisor or graduate coordinator, a conditional program (including the program's research course). International applicants should meet these requirements in comparable ways. All students seeking the MSE in the TESL option need to show grammar competency. This can be done by having completed a prior grammar course, passing a test, or enrolling in ENGL 5110. For acceptance into this program, non-native speakers of English must score above 85 on the International Test of English as a Foreign Language (TOEFL) or earn a score of 7.0 or above on the academic version of the International English Language Testing System (IELTS).

Connection to Certification

Students interested in the Missouri ELL certification endorsement are advised to consult with their advisor, the Program Coordinator, and the UCM director of Clinical Services and Certification. Additional courses may be required for the Missouri ELL certification endorsement, dependent on transcript analysis of undergraduate and graduate work.

Required Graduate Courses: 12 Semester Hours

- EDFL 5150 - Methods for Teaching ESOL (3)
- EDFL 5530 - Sociolinguistics (3)
- ENGL 5120 - Second Language Acquisition (3)
- ENGL 5410 - Linguistics (3)

TESL Option (ELL2): 18 Semester Hours

- ENGL 5820 - Assessment and Professionalism in TESL (3)
- ENGL 5890 - Practicum in English as a Second Language (3)
- ENGL 5960 - Advanced Teaching Methods for TESL (3)

- ENGL 5880 - The TESL Capstone (3)
  OR
- ENGL 6940 - Thesis (3)

Choose Two Courses From the Following:

- ENGL 5420 - Language and Culture (3)
- ENGL 5950 - Special Topics in TESL (3)
- ENGL 5970 - Culturally Responsive Teaching (3)

Minimum Graduate Hour Total: 30 Semester Hours

Note:

Due to the applied nature of this program, students are required to participate in curricular practical training during the first year of studies based on appropriate courses. In addition, students are expected to take ENGL 5890 - Practicum in English as a Second Language (3) to meet the enrollment requirements.

Literacy Education, MSE (51-836) (33 hours)

The MSE in Literacy Education degree from the Department of Educational Foundations and Literacy is designed to address the International Literacy Association Standards for Reading Professionals.

Student Learning Outcomes

The graduate with a Master of Science in Education degree in Literacy Education will use the knowledge and skills obtained in the program to achieve the following professional skills:

- Demonstrate expertise in the theoretical and evidence-based foundations of reading and writing processes and instruction.
- Demonstrate the use of instructional approaches and materials integrating comprehensive and balanced curriculum to support learning in reading and writing.
- Collect, manage, and monitor data from a variety of assessment tools and practices to plan and evaluate effective reading and writing instruction.
- Model, create, and engage students in literacy practices that develop awareness, understanding, respect, and valuing of differences in our society.
- Create a literate environment that fosters reading and writing by integrating foundational knowledge, instructional practices, approaches and methods, curriculum materials, and the appropriate use of assessments.
- Demonstrate a commitment to professional development as a career-long effort and responsibility.

Admission Requirements

To be accepted into the Master of Science in Education in Literacy Education degree program in the Department of Educational Foundations and Literacy, a student must: (a) have a minimum undergraduate grade point average of 2.5; (b) submit proof of teacher certification or professional endorsement from any of the 50 states or territories and have graduated from an NCATE or regionally accredited university; (c) submit a copy of his/her last summative teaching evaluation (i.e., a PBTE or similar evaluation form), or a letter from a school superintendent, principal or professor attesting to teaching skills and/or graduate studies potential. Applicants who do not meet these criteria must design, with a faculty adviser or graduate coordinator, a conditional program and complete the first 12 hours of that program (including the school's research course) with a minimum grade point average of 3.50. International applicants should meet these requirements in comparable ways.

In order to graduate with the MSE in Literacy Education, each candidate must pass a written portfolio and an oral portfolio presentation.

Students who seek Missouri Special Reading Certification are advised to consult with the Director of Clinical Services and Certification, University of Central Missouri, Warrensburg, MO 64093.

Required Graduate Courses: 27 Semester Hours

- EDFL 5205 - Methods and Materials for Literacy Enhancement (3)
- EDFL 5208 - Content Area Literacy (3)
- EDFL 5210 - Assessment of Literacy Development (3)
- EDFL 5240 - Advanced Language Arts Methods: Culture and Communication (3)
- EDFL 5250 - Language Development in the Literacy Program (3)
- EDFL 5260 - Evaluation of Abilities and Achievement in the Literacy Program (3)

- EDFL 6220 - The Literacy Coach (3)
- EDFL 6240 - Supervision of the Literacy Program (3)
- EDFL 6250 - Theoretical Applications: Scholarly Portfolio (3)

Required Clinical Practicum in Literacy Education: 6 Semester Hours

- EDFL 5220 - Practicum in Literacy Assessment (3)
- EDFL 5230 - Practicum in Instructional Techniques for Literacy Enhancement (3)

Minimum Graduate Hour Total: 33 Semester Hours

Master of Arts in Teaching (54-800) (30 hours) [Also available as an accelerated program]

Student Learning Outcomes

The graduate with a Master of Arts in Teaching (MAT) degree will use the knowledge and skills obtained in the program to:

- Deliver essential content of the discipline through engaging, meaningful learning activities aligned to the curriculum.
- Demonstrate understanding of curriculum implementation and instructional strategies, promoting critical thinking, consistent with current theories on student growth and development.
- Create a positive classroom environment, conducive to learning, through correct and appropriate communication and instructional strategies.
- Collect and maintain accurate student data to inform and improve instruction.
- Monitor and manage student learning through self-assessment, professional collaboration, and by staying current on instructional knowledge to improve student achievement.

The Master of Arts in Teaching program offers several areas of concentration: Secondary, Middle School, Elementary, K-12, and Educational Theory.

Admission Requirements

Applicants seeking admission to the Master of Arts in Teaching (MAT) degree program must hold a bachelor's degree from an accredited college or university, have a cumulative GPA of 2.5 or higher and submit:

- all official transcripts;
- two letters of recommendation from college/university educators and/or supervisors qualified to address your potential for success as a K-12 educator and/or colleagues who are qualified to address your professional skills;
- a written essay responding to the following question: Why are you interested in a teaching career?

Candidates seeking Missouri teacher certification must also apply to the Alternative Pathways to Certification program.

Students must complete EDFL 5900 or an adviser-approved alternative research course within the first 12 hours of their MAT program of study course work, excluding the Elementary Education concentration. Candidates seeking certification must complete either FLDX 5468 Student Teaching (3) or EDFL 5100 - MAT Internship (3), depending on the certification status. To enroll in FLDX 5468 or EDFL 5100, MAT candidates must participate in student teaching or be a contracted teacher, and have completed 24 hours of the MAT Program of Study course work; (FLDX 5468 and EDFL 5100 are not offered during the summer semester).

Candidates seeking Missouri teacher certification through the UCM Alternative Pathways to Certification program must have submitted official transcripts from all colleges and universities attended and paid the transcript analysis fee.

International students should apply through International Admissions. International students must meet the prior MAT requirements and earn a TOEFL score of 79 on the internet based test or 550 on the paper based test, or IELTS score of 6.0.

Secondary Education (8002)

Required Graduate Courses: 30 Semester Hours

- EDFL 5105 - Foundations of Teaching and Learning (3)
- EDFL 5200 - Advanced Educational Psychology (3)
- EDFL 5208 - Content Area Literacy (3)
- EDFL 5209 - Instructional Interventions for Reading Deficits in the Content Areas (3)
- EDFL 5270 - Teaching Culturally and Linguistically Diverse Students (3)
- EDFL 5300 - Advanced Assessment and Evaluation (3)
- EDFL 5330 - Classroom Discipline and Motivation (3)
- EDFL 5340 - Contemporary Instruction: Theory and Practice (3)
- EDFL 5900 - Introduction to Research (3)

- EDFL 5100 - MAT Internship (3)
  OR
- FLDX 5468 - Student Teaching I (1-12) (3)

Minimum Graduate Hour Total for Secondary Ed Area: 30 Semester Hours

Middle School Education (8001)

Required Graduate Courses: 30 Semester Hours

- EDFL 5105 - Foundations of Teaching and Learning (3)
- EDFL 5130 - Middle School Foundations (3)
- EDFL 5200 - Advanced Educational Psychology (3)
- EDFL 5208 - Content Area Literacy (3)
- EDFL 5209 - Instructional Interventions for Reading Deficits in the Content Areas (3)
- EDFL 5270 - Teaching Culturally and Linguistically Diverse Students (3)
- EDFL 5300 - Advanced Assessment and Evaluation (3)
- EDFL 5440 - Middle School Curriculum and Instruction (3)
- EDFL 5900 - Introduction to Research (3)

- EDFL 5100 - MAT Internship (3)
  OR
- FLDX 5468 - Student Teaching I (1-12) (3)

Minimum Graduate Hour Total for Middle School Ed Area: 30 Semester Hours

Educational Theory (8003)

Required Graduate Courses: 30 Semester Hours

- EDFL 5120 - Advanced Foundations of Education (3)
- EDFL 5200 - Advanced Educational Psychology (3)
- EDFL 5208 - Content Area Literacy (3)
- EDFL 5300 - Advanced Assessment and Evaluation (3)
- EDFL 5320 - Curriculum Development and Assessment (3)
- EDFL 5330 - Classroom Discipline and Motivation (3)
- EDFL 5340 - Contemporary Instruction: Theory and Practice (3)
- EDFL 5400 - Differentiation in K-12 Learning Environments (3)
- EDFL 5410 - Advanced Curriculum Development and Assessment (3)
- EDFL 5900 - Introduction to Research (3)

Minimum Graduate Hour Total for Ed Theory Area: 30 Semester Hours

Elementary Education (8004)

Required Graduate Courses: 30 Semester Hours

- ECEL 5120 - Curriculum Design and Assessment (3)
- ECEL 5140 - Communication Arts Integration (4)
- ECEL 5400 - Classroom Management and Interactions (3)
- ECEL 5890 - Mathematics Curriculum, Assessment, and Instruction (3)
- EDFL 5105 - Foundations of Teaching and Learning (3)
- EDFL 5200 - Advanced Educational Psychology (3)
- EDFL 5270 - Teaching Culturally and Linguistically Diverse Students (3)
- EDFL 5340 - Contemporary Instruction: Theory and Practice (3)
- EDSP 5200 - Advanced Education of the Exceptional Child (3)
- FLDX 5468 - Student Teaching I (1-12) (2)

Minimum Graduate Hour Total for Elementary Education Area: 30 Semester Hours

K-12 Education (8005)

Required Graduate Courses: 30 Semester Hours

- ECEL 5120 - Curriculum Design and Assessment (3)
- EDFL 5105 - Foundations of Teaching and Learning (3)
- EDFL 5200 - Advanced Educational Psychology (3)
- EDFL 5208 - Content Area Literacy (3)
- EDFL 5270 - Teaching Culturally and Linguistically Diverse Students (3)
- EDFL 5300 - Advanced Assessment and Evaluation (3)
- EDFL 5330 - Classroom Discipline and Motivation (3)
- EDFL 5440 - Middle School Curriculum and Instruction (3)
- EDFL 5900 - Introduction to Research (3)
- FLDX 5468 - Student Teaching I (1-12) (3)

Minimum Graduate Hour Total for K-12 Education Area: 30 Semester Hours

Science Education (8006)

Required Graduate Courses: 30 Semester Hours

- EDFL 5105 - Foundations of Teaching and Learning (3)
- EDFL 5208 - Content Area Literacy (3)
- EDFL 5300 - Advanced Assessment and Evaluation (3)
- EDFL 5330 - Classroom Discipline and Motivation (3)
- FLDX 5468 - Student Teaching I (1-12) (8)
- STCH 5010 - Exploring Firsthand Science Lessons (1-2) (2)
- STCH 5020 - Internship in Science Teaching and Learning (1)
- STCH 5050 - Science Teaching Methods (3)
- STCH 5900 - Applied Research in Science Learning and Literacy (4)

Minimum Graduate Hour Total for Science Education Area: 30 Semester Hours

Accelerated Program Notes:

The Accelerated model for this program is designed for BS Biology Area 8 Pre-Science Education.

UCM students having completed at least 9 hours of biology courses with a GPA of at least 3.00 may consult with the coordinator of the BS/MAT accelerated program and complete a departmental application to declare the accelerated BS/MAT major. To be recommended to the graduate portion of the program, students must have a major GPA of 3.00 or above and an overall GPA of 2.75 in the undergraduate portion of the program. Prior to beginning the graduate portion of the program, students will need to apply to the UCM Graduate School for formal admittance to the accelerated program. Upon completion of this program, students will be eligible for science teaching certification in Biology.

Courses that an accelerated student may be eligible to include as overlap between the undergraduate and graduate programs:

EDFL 5105 - Foundations of Teaching and Learning (3) (EDFL 4105)

STCH 5010 - Exploring Firsthand Science Lessons (1-2) (STCH 4010)

STCH 5020 - Internship in Science Teaching and Learning (1) (STCH 4020)

STCH 5050 - Science Teaching Methods (3) (STCH 4050)

The Accelerated model for this program is designed for BS Chemistry.

UCM students having completed at least 9 hours of chemistry courses with a GPA of at least 3.00 may consult with the coordinator of the BS/MAT accelerated program and complete a departmental application to declare the accelerated BS/MAT major. To be recommended to the graduate portion of the program, students must have a major GPA of 3.00 or above and an overall GPA of 2.75 in the undergraduate portion of the program. Prior to beginning the graduate portion of the program, students will need to apply to the UCM Graduate School for formal admittance to the accelerated program. Upon completion of this program, students will be eligible for science teaching certification in Biology.

Courses that an accelerated student may be eligible to include as overlap between the undergraduate and graduate programs:

EDFL 5105 - Foundations of Teaching and Learning (3) (EDFL 4105)

STCH 5010 - Exploring Firsthand Science Lessons (1-2) (STCH 4010)

STCH 5020 - Internship in Science Teaching and Learning (1) (STCH 4020)

STCH 5050 - Science Teaching Methods (3) (STCH 4050)

Department of Educational Technology and Library Science

Corporate Training Graduate Certificate (50-5604) (12 Hours)

****This certificate is effective Spring 2026****

The Corporate Training graduate certificate program is an advanced program designed to equip professionals with the skills to design, implement, and evaluate effective corporate training initiatives.

Upon successful completion of this certificate, students will be able to:

- Create comprehensive training programs aligned with organizational goals.
- Leverage adult learning principles to maximize learning.
- Develop effective e-learning modules and blended learning experiences.
- Measure training effectiveness and demonstrate ROI.

Required Graduate Courses: 12 Semester Hours

- INST 5100 - Foundations of Educational Technology (3)
- INST 5200 - Instructional Design and Development (3)
- INST 5500 - Online Course Development (3)
- MGT 5320 - Learning Organization (3)

Educational Technology, EdS (61-696) (30 hours)

Student Learning Outcomes

The graduate with an Education Specialist degree in Educational Technology will use the knowledge and skill obtained in the program to:

- Inspire, support, and participate in a shared vision for comprehensive integration of technology to create high quality, equitable learning and support transformational change throughout the instructional environment.
- Model effective technology integration, empowering learners to be active, collaborative, ingenious, and engaged.
- Establish and sustain productive relationships to enhance professional practice and learning outcomes.
- Model and support educators' ability to design and differentiate instruction with technology to provide relevant, engaging experiences for all learners in diverse educational settings while engaging in continuous deepening of content, pedagogical, and technical expertise.
- Conduct needs assessments, develop technology related professional learning programs, evaluate impact and engage in continuous reflection for improvement.
- Model and promote digital citizenship.
- Utilize data to make informed decisions regarding instruction and learning.
- Interpret, conduct, and contribute to the scholarly research of the field.

This advanced program is designed for students who have already earned their master's degree. The program prepares teachers, educators, and others within education and training to enhance their understanding of incorporating technology into the educational environment and provide the tools and skills to find, utilize, and conduct research to advance their own use of educational technology.

Admission Requirements

To be accepted into the program a student must have a Master's degree and a minimum graduate GPA of 3.25. An applicant who does not meet the overall graduate grade point average must be classified as "a non -degree seeking student" until achieving a minimum graduate grade point average of 3.25 during the first nine hours of graduate study in the courses appropriate to the degree program.

Program Requirements

Students will earn a minimum of 30 semester hours of graduate credit within an approved program of study beyond a master's degree. Aided by an adviser each student shall select 12 credit hours of courses which may be from the required courses for the Master's degree in Educational Technology, electives from the educational technology program or related courses from other program areas. The program concludes with a formal research component consisting of a research paper and/or a thesis.

Required Graduate Courses: 18 Semester Hours

Aided by an adviser each student shall select courses in the area of specialization. Students without a master's degree in educational technology will complete a research paper and those with a master's degree in educational technology will be encouraged to conduct research for a formal thesis.

- INST 5100 - Foundations of Educational Technology (3)
- INST 5900 - Introduction to Research Methods in Educational Technology (3)
- INST 5950 - Advanced Research Methods in Educational Technology (3)
- INST 6935 - Internship in Instructional Technology (3)
- INST 6950 - Seminar in Educational Technology (3)
- INST 6960 - Research Problems in Instructional Technology (3)

Select an Area: 12 Semester Hours

General Education Technology Area (ET06): 12 Semester Hours

Learning Technologies Area (ET07): 12 Semester Hours

- INST 5220 - Communication in Online Learning Communities (3)
- INST 5320 - Assessing and Evaluating Online Instruction (3)
- INST 5330 - Educational Product Development and Management (3)
- INST 5390 - Educational Technology Leadership (3)
- INST 5500 - Online Course Development (3)

Adult Learning/Corporate Training Area (ET08): 12 Semester Hours

- MGT 5310 - Leading and Guiding Change (3)
- MGT 5320 - Learning Organization (3)
- MGT 5325 - Strategic Organizational Communication (3)
- MGT 5340 - Building Leadership Credibility (3)

- HRM 5960 - Employment and Development (3)

Technology Directors Area (ET10): 12 Semester Hours

- INST 5140 - Technology Troubleshooting for Educators (3)
- INST 5180 - Essential Practices for Technology Directors (3)
- INST 5390 - Educational Technology Leadership (3)
- INST Elective (3)

Minimum Graduate Hour Total: 30 Semester Hours

Educational Technology, MS (53-846) (30 hours)

Student Learning Outcomes

The graduate with a Master of Science degree in Educational Technology will use the knowledge and skills obtained in the program to:

- Inspire, support, and participate in a shared vision for comprehensive integration of technology to create high quality, equitable learning and support transformational change throughout the instructional environment.
- Model effective technology integration, empowering students to be active, collaborative, ingenious, and engaged.
- Establish and sustain productive relationships to enhance professional practice and learning outcomes.
- Model and support educators' ability to design and differentiate instruction with technology to provide relevant, engaging experiences for all learners in diverse educational settings while engaging in continuous deepening of content, pedagogical, and technical expertise.
- Conduct needs assessments, develop technology related professional learning programs, evaluate impact and engage in continuous reflection for improvement.
- Utilize data to make informed decisions regarding instruction and learning.
- Model and promote digital citizenship.

Professional studies in educational technology provide individuals desiring to become teachers, corporate trainers, educational technology coordinators, and school administrators with technological concepts and skills, field experiences, instructional technology leadership skills, and a foundation in educational research related to the application of technologies in education. Our graduates in educational technology address critical societal needs for technology leadership from such professional positions as teachers and trainers, instructional designers and developers in business and industry, school library media specialists, distance learning teachers and specialists, producers of computer mediated learning materials, technology administrators and policy makers, and performance technologists and university faculty members and administrators. With a statewide technology mission, the University of Central Missouri is a leader in the region.

Admission Requirements

To be accepted into the program a student must have a Bachelor's degree and a minimum undergraduate GPA of 2.75 or a GPA of 3.00 on the last 60 hours.

Required Graduate Courses: 24 Semester Hours

- INST 5100 - Foundations of Educational Technology (3)

- INST 5200 - Instructional Design and Development (3)

OR

- INST 5330 - Educational Product Development and Management (3)

- INST 5220 - Communication in Online Learning Communities (3)
- INST 5320 - Assessing and Evaluating Online Instruction (3)
- INST 5390 - Educational Technology Leadership (3)
- INST 5500 - Online Course Development (3)
- INST 5900 - Introduction to Research Methods in Educational Technology (3)
- INST 6935 - Internship in Instructional Technology (3)

Select an Area: 6 Semester Hours

General Education Technology Area (ET03): 6 Semester Hours

Learning Technologies Area (ET04): 6 Semester Hours

- INST 5101 - Integrating Technology into Teaching (3)
- INST 5110 - Google Educator Preparation (3)
- INST 5150 - Design and Production of Media for Instruction (3)
- INST 5401 - Computer Science for Educators (3)

Adult Learning/Corporate Training Area (ET05): 6 Semester Hours

- MGT 5310 - Leading and Guiding Change (3)
- MGT 5320 - Learning Organization (3)
- MGT 5325 - Strategic Organizational Communication (3)
- MGT 5340 - Building Leadership Credibility (3)
- HRM 5960 - Employment and Development (3)

Technology Directors Area (ET09): 6 Semester Hours

- INST 5140 - Technology Troubleshooting for Educators (3)
- INST 5180 - Essential Practices for Technology Directors (3)

Minimum Graduate Hour Total: 30 Semester Hours

K-12 School Librarianship Graduate Certificate (50-7751) (12 hours)

This entirely online certificate equips K-12 teachers to become 21st-century school librarians. Students will be introduced to how school librarians acquire, evaluate, create, and use the information and most current technologies needed for these processes.

To be accepted into the program, a student must have a Bachelor's degree with a minimum overall GPA of 2.50 (based on 4.00). Students may have an undergraduate degree in any area.

Application Deadlines:

- Fall Semester Start- applications due July 31
- Spring Semester Start- applications due December 1
- Summer Semester Starts- applications due April 15

Required Graduate Courses: 12 Semester Hours

- LIS 5100 - Foundations of Librarianship (3)
- LIS 5250 - Developing and Managing Collections (3)
- LIS 5622 - Library Administration and Leadership (3)
- LIS 5700 - Organizing Information (3)

Master of Library Science (56-5601) (36 hours)

Student Learning Outcomes

The entirely online Master of Library Science is designed to help you become a 21st century librarian. As an information expert, educator, and collaborator, the librarian develops, promotes, and implements a program that engages the community as they become effective lifelong users and creators of information. Our program prepares students to:

- Apply the values, ethics, and professional guidelines of the library and information professions.
- Plan for the sustainable management of human, fiscal, and information resources for access and equity
- Plan for the implementation of technologies in libraries, including strategies for developing the technical skills and habits of mind in librarians, patrons, and stakeholders as necessary for innovation.
- Curate, organize, and manage information resources to support retrieval by users.
- Evaluate and propose library services for diverse communities.
- Analyze data to make decisions for the library.

Admission Requirements:

- An undergraduate degree from an accredited institution
- 2.75 or higher cumulative undergraduate GPA
- Submission of a letter of intent
- Submission of an updated resume

Application Deadlines:

- Fall Semester Start- applications due July 31
- Spring Semester Start- applications due December 1
- Summer Semester Starts- applications due April 15

Required Graduate Courses: 24 Semester Hours

- LIS 5100 - Foundations of Librarianship (3)
- LIS 5250 - Developing and Managing Collections (3)
- LIS 5322 - Information Sources and Services (3)
- LIS 5350 - Culturally Competent Librarianship (3)
- LIS 5500 - Technology in Libraries (3)
- LIS 5622 - Library Administration and Leadership (3)
- LIS 5700 - Organizing Information (3)
- LIS 5900 - Research Methods in Library Science (3)

Graduate Electives: 12 Semester Hours

Graduate electives should be selected after consultation with Graduate Faculty Advisor to allow student to focus on the area of professional specialization.

School Library Specialization

- LIS 5071 - Teaching Multiple Literacies in the Library (3)
- LIS 5150 - Practicum I in School Libraries (1)
- LIS 5400 - Children's and Young Adult Literature (3)
- LIS 5750 - Inquiry Learning (3)
- LIS 5800 - Curriculum and the School Library (3)
- LIS 5820 - Practicum 2 in School Libraries (1-3)
- LIS 5880 - Practicum Portfolio (1)
- LIS 6830 - Student Teaching in School Libraries (3-8)

Public Library Specialization

- LIS 5230 - History of Books and Libraries (3)
- LIS 5400 - Children's and Young Adult Literature (3)
- LIS 5520 - The User Experience in Libraries (3)
- LIS 5660 - Government Information and Policy (3)
- LIS 5804 - The Public Library (3)
- LIS 6700 - Cataloging and Classification (3)
- LIS 6800 - Library Data and Assessment (3)

Academic Library Specialization

- LIS 5300 - Ethical Issues in Information Systems (3)
- LIS 5520 - The User Experience in Libraries (3)
- LIS 5660 - Government Information and Policy (3)
- LIS 5802 - The Academic Library (3)
- LIS 6700 - Cataloging and Classification (3)
- LIS 6800 - Library Data and Assessment (3)

Research, Field and Service Experiences (counts as elective credit)

- LIS 5890 - Global Information Issues (1-3)
- LIS 6730 - Seminar (1-3)
- LIS 6850 - Internship in Library and Information Services (1-3)
- LIS 6900 - Research Problems (3)

Minimum Graduate Hour Total: 36 Semester Hours

Note:

Students who seek Missouri School Library Media Specialist PK-12 certification are advised to consult with the LIS Program Coordinator or the Department of Educational Technology and Library Science.

Online Teaching and Learning Graduate Certificate (50-995) (15 hours)

This entirely online program equips K-20 teachers, administrators, and corporate trainers to keep pace with the demands of virtual instruction and Web-enhanced classrooms. By being immersed in the online environment students

learn from both a teacher and student perspective. Those who want to teach online and/or include online components within the traditional classroom will be interested in this program.

After completing the certificate students are eligible to apply to the Master of Science degree in Educational Technology and, if accepted, apply these completed courses towards that degree.

To be accepted into the program, a student must have a Bachelor's degree with a minimum overall GPA of 2.50 (based on 4.00). Students may have an undergraduate degree in any area.

Note: The Graduate Certificate in Online Teaching and Learning does not include certification to teach in a K-12 setting. A certificate is an award of completion. Certification is awarded by the state, authorizing an individual to teach in a K-12 school. If you do not have certification to teach but wish to do so then contact the certification office to determine what additional course work would be required.

Required Graduate Courses: 15 Semester Hours

- INST 5100 - Foundations of Educational Technology (3)
- INST 5220 - Communication in Online Learning Communities (3)
- INST 5320 - Assessing and Evaluating Online Instruction (3)
- INST 5330 - Educational Product Development and Management (3)
- INST 5500 - Online Course Development (3)

Minimum Graduate Hour Total: 15 Semester Hours

Professional Leadership, EdS (61-686) - Librarianship Option (0033) (30 hours)

Student Learning Outcomes

The graduate with an Education Specialist degree in Professional Leadership will use the knowledge and skills obtained in the program to:

- Apply research methods to interpret, describe, and infer from existing or newly generated data.
- Provide leadership to one's own professional discipline.
- Plan, conduct, and analyze scientific research in one's discipline.

Admission Requirements

This advanced program is designed for individuals who are currently involved in or planning careers in a professional leadership position. To be accepted into this program, students must: (1) have earned a master's degree in the area of specialization or have completed 15 semester hours of appropriate background courses as determined by the Department at either the undergraduate or graduate level; and (2) have achieved a cumulative grade point average of 3.25 in the master's degree. Applicants must submit a letter of intent and a resume with their application, in addition to all graduate school requirements.

Applicants who do not meet the above criteria will be classified as a "nondegree student" until they: (1) provide evidence of having completed 15 semester hours of background courses as determined by the Department; and (2) obtain a 3.5 GPA during the first 12 hours of graduate study in courses appropriate to the degree program and consistent with UCM's graduate policy.

At least 18 semester hours of the approved program must have been at the 5000/6000 level. If the approved program of study is more than 36 semester hours, at least fifty-percent of the semester credit hours must have been at the 5000/6000 level. Courses used to fulfill the minimum number of semester hours at the 5000/6000 level must be in courses taught only to graduate students. A minimum of six of these hours must be at the 6000 level.

Application Deadlines:

- Fall Semester Start- applications due July 31
- Spring Semester Start- applications due December 1
- Summer Semester Starts- applications due April 15

Required Graduate Courses: 6-14 Semester Hours

Research Methods and Data Analysis: 3-6 Semester Hours

- COUN 5810 - Program Evaluation and Research in Counseling (3)
  OR
- CTE 5900 - Introduction to Research Methods (3)
  OR
- CTE 5910 - Qualitative Research (3) **
  OR
- CTE 6100 - Quantitative Analysis and Interpretation (3) **
  OR
- LIS 5900 - Research Methods in Library Science (3)
  OR
- LIS 6900 - Research Problems (3)
  OR
- PSY 5050 - Statistics for the Behavioral Sciences (3)

Capstone: 3-8 Semester Hours

- LIS 6830 - Student Teaching in School Libraries (3-8) *
  OR
- LIS 6900 - Research Problems (3)
  OR
- LIS 6990 - Thesis (3-6)

Electives: 16-24 Semester Hours

Students select 16-24 hours of appropriate elective coursework consistent with their career goals and University requirements. Elective courses are contingent on program advisor and graduate program coordinator approval.

Minimum Graduate Hour Total: 30 Semester Hours

* Eligibility for LIS 6830 will be determined by previous course work prerequisites taken through program of study electives. LIS 6830 is only available to candidates who do not have a teaching certificate.

** CTE 5910 only available to students who have completed CTE 5900 or equivalent during previous work; CTE 6100 only available to students who have completed CTE 5900, LIS 5900, COUN 5810, or equivalent during previous work.

Department of Special Education & Behavior Analysis

Autism Spectrum Disorders Graduate Certificate (50-978) (18 hours)

In addition to the Masters of Science in Special Education K-12, UCM also offers a Graduate Certificate in Autism Spectrum Disorders (ASD). This certificate is available totally online and consists of a series of six 3-credit hour courses. Because the State of Missouri does not issue a teaching certificate in the area of Autism, the certificate does not lead to any additional teaching licenses. However, those individuals who possess such advanced training are in great demand by school districts in Missouri and elsewhere. The Student Learning Outcomes for this certificate are taken from the Council for Exceptional Children's Advanced Standards for Special Educators (2012) and include:

- Acquire and demonstrate the use of valid and reliable assessment practices to minimize bias in the evaluation of individuals with Autism Spectrum Disorders.
- Apply knowledge of general and specialized curricula to improve programs, supports, and services at classroom, school, community, and system levels, thus enhancing the quality of life for individuals with Autism Spectrum Disorders.
- Facilitate the continuous improvement of general and special education programs, supports, and services at the classroom, school, and system levels for individuals with Autism Spectrum Disorders.
- Conduct, evaluate, and use inquiry to guide professional practice with individuals with Autism Spectrum Disorders.
- Acquire and continually develop leadership abilities to formulate goals, set and meet high professional expectations, advocate for effective policies and evidence-based practices and create positive and productive work environments.
- Enhance one's knowledge of the field of Autism Spectrum Disorders and professional Ethical Principles and Practice Standards to inform special education practice and perform leadership responsibilities to promote the success of professional colleagues and individuals with exceptionalities.
- Collaborate with stakeholders to improve programs, services, and outcomes for individuals with Autism Spectrum Disorders and their families.

To be accepted into the program, a student must have a bachelor's degree with a minimum overall GPA of 2.75 (based on 4.0). This program is designed to enhance one's knowledge and skills when working with students with autism spectrum disorders in a school setting. Undergraduate degrees should be in education or a related field (occupational therapy, physical therapy, speech therapy), or an applicant should be employed full time by a school district. Exceptions may be made at the discretion of the department and applicants will be required to submit a written narrative explaining their circumstances for a desire to be admitted to the program.

Note: The Graduate Certificate in Autism Spectrum Disorders does not include certification to teach in a K-12 setting. A certificate is an award of completion. If you do not have certification to teach but wish to do so then contact the certification office to determine what additional course work would be required. Additionally, courses taken to earn the Graduate Certificate in ASD may be applied to complete the MSE in K-12 Special Education degree.

Required Graduate Courses: 18 Semester Hours

- EDSP 5510 - Fundamentals of Autism Spectrum Disorders (3) *
- EDSP 5511 - Behavioral Interventions for Students with Autism Spectrum Disorders (3)
- EDSP 5512 - Communication and Social Skills in Students with Autism Spectrum Disorders (3)
- EDSP 5513 - Early Intervention in Children with Autism Spectrum Disorders (3)
- EDSP 5514 - Classroom Strategies for Students with Autism Spectrum Disorders (3)
- EDSP 5515 - Assessment and Planning for Students with Autism Spectrum Disorders (3)

Minimum Graduate Hour Total: 18 Semester Hours

* Note: The EDSP 5510 course is a prerequisite for any of the other courses in the ASD Graduate Certificate, but other courses MAY be taken concurrently with EDSP 5510.

Behavior Analysis, MS (53-688) - Applied Behavior Analysis and Autism Spectrum Disorder Option (6882) (42 hours)

Student Learning Outcomes

Students enrolled in Master of Science in Psychology-Behavior Analysis program will use the knowledge and skills obtained in the program to:

- Demonstrate skills and knowledge in the use and interpretation of data obtained using single-subject research designs.
- Demonstrate skills and knowledge related to the assumptions and practice of behavioral assessment.
- Demonstrate knowledge and skills related to behavior analysis, learning, application of principles of behavior, and knowledge of ethics and professional behavior.

Our asynchronous online program is designed to prepare students to work in applied settings as a Licensed and Board Certified Behavior Analyst (BCBA) and to pursue further graduate study.

Applications and application deadline

The number of students admitted to the program is limited. Completed applications must be submitted by April 15. Applications submitted after the due date will be considered on a space available basis. Students are only admitted fall semester.

Admission Requirements

Degree seeking applicants

Applicants must meet the following conditions to be considered.

- Apply to the MS Behavior Analysis program.
- Be fully admitted to UCM by the Office of Graduate Studies.
- Have a bachelor's degree from an accredited university.
- Have minimum GPA of 3.00 from an accredited institution.
- Completed one undergraduate course in Psychology of Learning and Conditioning or Behavior Analysis with a grade of B or better.
- Submitted three letters of recommendation from professionals who can speak to the applicant's skills and ability to be successful in an applied behavior science program.
- Provide a formal goal statement describing how their professional goals fit the focus of the program.

Selection of applicants will be based on the applicant's GPA and consistency of the goal statement in relation to mission of the MS Behavior Analysis program, and letters of recommendation indicating high potential for graduate work in an applied behavior science program.

Program options

After completing the 24 credit hours of the 30-hour core requirement in Behavior Analysis, students may elect one of two program options: (a) Behavior Analysis and Therapy (6 credit hours), or (b) Applied Behavior Analysis and Autism Spectrum Disorder (12 credit hours).

All students must satisfactorily complete the 30-hour curriculum, optional courses, and two practicum courses (supervised experience) to be eligible for the Master of Science in Behavior Analysis degree. Additional post graduate supervised experience may be needed, depending on the student's situation.

Transfer credit

No more than 12 graduate hours taken as a non-degree student (i.e., one not officially admitted to the psychology graduate program) may be applied to the M.S. in Psychology - Behavior Analysis. The chair of the school must approve these graduate hours. All courses must also meet the time limits established by the Graduate Studies office. Upon acceptance into the program, the student will be assigned a program graduate adviser and will be able to apply for federal financial aid.

Students should be aware that most graduate courses have prerequisites. These prerequisites must be met before enrolling in the courses. In some situations, a prerequisite may be waived with the consent of the program coordinator.

Non-Degree Seeking Post Graduate Course Work

Applicants who hold a master's degree in Psychology or Education are eligible to become a Licensed and Board Certified Behavior Analyst (BCBA) after completing 24 credit hours of required coursework and supervised fieldwork. Non degree seeking students must complete the application process and meet the admission requirements described above.

Eligibility to enroll in MS-Behavior Analysis courses

- Be fully admitted to UCM by the Office of graduate Studies.
- Admitted to the program as a degree or non-degree seeking student.

Required Core Courses: 30 Semester Hours

- EDSP 5130 - Principles of Behavior and Learning (3)
- EDSP 5160 - Conceptual and Philosophical Foundations of Behavior Analysis (3)
- EDSP 5300 - Staff Training and Performance Management (3)
- EDSP 5455 - Behavior Analysis and Therapy 1 (3)
- EDSP 5460 - Behavior Analysis and Therapy 2 (3)
- EDSP 5500 - Ethics and Behavioral Health Care (3)
- EDSP 5610 - Research Methods in Applied Settings (3)
- EDSP 5570 - Behavioral Assessment (3)
- EDSP 5970 - Practicum in Psychology (3) (6)

Applied Behavior Analysis and Autism Spectrum Disorder Option: 12 Semester Hours

- EDSP 5510 - Fundamentals of Autism Spectrum Disorders (3)
- EDSP 5512 - Communication and Social Skills in Students with Autism Spectrum Disorders (3)
- EDSP 5513 - Early Intervention in Children with Autism Spectrum Disorders (3)
- EDSP 5514 - Classroom Strategies for Students with Autism Spectrum Disorders (3)

Non-Degree Seeking Post Graduate Course Work Leading to the BCBA credential

Applicants with a graduate degree in Education, Psychology or Behavior Analysis, and who complete additional graduate coursework in behavior analysis, are eligible to take the BCBA examination and become a licensed behavior analyst. Non-degree seeking students must complete the 30 credit hour core curriculum requirements to be eligible for licensure and certification as a Board Certified Behavior Analyst (BCBA).

Minimum Graduate Hour Total: 42 Semester Hours

Behavior Analysis, MS (53-688) - Behavior Analysis Therapy Option (6881) (36 hours)

Student Learning Outcomes

Students enrolled in Master of Science in Psychology-Behavior Analysis program will use the knowledge and skills obtained in the program to:

- Demonstrate skills and knowledge in the use and interpretation of data obtained using single-subject research designs.
- Demonstrate skills and knowledge related to the assumptions and practice of behavioral assessment.
- Demonstrate knowledge and skills related to behavior analysis, learning, application of principles of behavior, and knowledge of ethics and professional behavior.

Our asynchronous online program is designed to prepare students to work in applied settings as a Licensed and Board Certified Behavior Analyst (BCBA) and to pursue further graduate study.

Applications and application deadline

The number of students admitted to the program is limited. Completed applications must be submitted by April 15. Applications submitted after the due date will be considered on a space available basis. Students are only admitted fall semester.

Admission Requirements

Degree seeking applicants

Applicants must meet the following conditions to be considered.

- Apply to the MS Behavior Analysis program.
- Be fully admitted to UCM by the Office of Graduate Studies.
- Have a bachelor's degree from an accredited university.
- Have minimum GPA of 3.00 from an accredited institution.
- Completed one undergraduate course in Psychology of Learning and Conditioning or Behavior Analysis with a grade of B or better.
- Submitted three letters of recommendation from professionals who can speak to the applicant's skills and ability to be successful in an applied behavior science program.
- Provide a formal goal statement describing how their professional goals fit the focus of the program.

Selection of applicants will be based on the applicant's GPA and consistency of the goal statement in relation to mission of the MS Behavior Analysis program, and letters of recommendation indicating high potential for graduate work in an applied behavior science program.

Program options

After completing the 24 credit hours of the 30-hour core requirement in Behavior Analysis, students may elect one of two program options: (a) Behavior Analysis and Therapy (6 credit hours), or (b) Applied Behavior Analysis and Autism Spectrum Disorder (12 credit hours).

All students must satisfactorily complete the 30-hour curriculum, optional courses, and two practicum courses (supervised experience) to be eligible for the Master of Science in Behavior Analysis degree. Additional post graduate supervised experience may be needed, depending on the student's situation.

Transfer credit

No more than 12 graduate hours taken as a non-degree student (i.e., one not officially admitted to the psychology graduate program) may be applied to the M.S. in Psychology - Behavior Analysis. The chair of the school must approve these graduate hours. All courses must also meet the time limits established by the Graduate Studies office. Upon acceptance into the program, the student will be assigned a program graduate adviser and will be able to apply for federal financial aid.

Students should be aware that most graduate courses have prerequisites. These prerequisites must be met before enrolling in the courses. In some situations, a prerequisite may be waived with the consent of the program coordinator.

Non-Degree Seeking Post Graduate Course Work

Applicants who hold a master's degree in Psychology or Education are eligible to become a Licensed and Board Certified Behavior Analyst (BCBA) after completing 24 credit hours of required coursework and supervised fieldwork. Non degree seeking students must complete the application process and meet the admission requirements described above.

Eligibility to enroll in MS-Behavior Analysis courses

- Be fully admitted to UCM by the Office of graduate Studies.
- Admitted to the program as a degree or non-degree seeking student.

Required Core Courses: 30 Semester Hours

- EDSP 5130 - Principles of Behavior and Learning (3)
- EDSP 5160 - Conceptual and Philosophical Foundations of Behavior Analysis (3)
- EDSP 5300 - Staff Training and Performance Management (3)
- EDSP 5455 - Behavior Analysis and Therapy 1 (3)
- EDSP 5460 - Behavior Analysis and Therapy 2 (3)
- EDSP 5500 - Ethics and Behavioral Health Care (3)
- EDSP 5610 - Research Methods in Applied Settings (3)
- EDSP 5570 - Behavioral Assessment (3)
- EDSP 5970 - Practicum in Psychology (3) (6)

Behavior Analysis Therapy Option: 6 Semester Hours

- EDSP 5520 - Behavioral Medicine (3)
- EDSP 5550 - Behavior Therapy (3)

Non-Degree Seeking Post Graduate Course Work Leading to the BCBA credential

Applicants with a graduate degree in Education, Psychology or Behavior Analysis, and who complete additional graduate coursework in behavior analysis, are eligible to take the BCBA examination and become a licensed behavior analyst. Non-degree seeking students must complete the 30 credit hour core curriculum requirements to be eligible for licensure and certification as a Board Certified Behavior Analyst (BCBA).

Minimum Graduate Hour Total: 36 Semester Hours

Special Education K-12, MSE (51-834) (30 hours)

Student Learning Outcomes

The learner outcomes for the Masters of Science in Special Education Degree are the Advanced Preparation Standards established by the Council for Exceptional Children (2012).

These outcomes include:

- Use valid and reliable assessment practices to minimize bias.

- Use their knowledge of general and specialized curricula to improve programs, supports, and services at classroom, school, community, ad system levels.
- Facilitate the continuous improvement of general and special education programs, supports, and services at the classroom, school and system levels for individuals with exceptionality.
- Conduct, evaluate, and use inquiry to guide professional practice.
- Provide leadership to formulate goals, set and meet high professional expectations, advocate for effective policies and evidence-based practices and create positive and productive work environments.
- Use foundational knowledge of the field and professional ethical principles ad practice standards to inform special education practice, engage in life-long learning, advance the profession, and perform leadership responsibilities to promote the success of professional colleagues and individuals with exceptionality.
- Collaborate with stakeholders to improve programs, services and outcomes for individuals with exceptionality and their families.

At the advanced level, special educators share an array of functions and responsibilities. Reflecting this commonality, the Council for Exceptional Children has validated the above skill set and determined that all special educators shall have mastered these skills as a part of their preparation for advanced practice.

Admission Requirements

Admission requirements include a valid teaching certificate or a degree in Speech-Language Pathology, or other recognized student service area a minimum overall undergraduate grade point average of 2.75 or a grade point average of 3.00 in the last 60 undergraduate credit hours. Admitted students must maintain all requirements as specified by the UCM Graduate School.

The Master of Science in Education degree program with courses in special education may not include more than one third of the course requirements to be met by courses which are open to both graduate and undergraduate students. The Master of Science in Education degree program in special education is a minimum 33 hour program. For additional details, consult with the Special Education Coordinator in the Department of Early, Elementary, Middle and Physical Education, LOV 3155.

Required Graduate Courses: 3 Semester Hours

- EDSP 6980 - Internship in Special Education (3)

Select an Area: 27 Semester Hours

General Special Education Area (8341)

Select from the Following: 27 Semester Hours

- EDSP 5000 - Topics in Special Education (1-3)
- EDSP 5100 - Introduction to Graduate Study in Special Education (3)
- EDSP 5140 - Collaborating with Professionals and Families of Students with Exceptionalities (3)
- EDSP 5150 - Career Development for Students with Disabilities (2)
- EDSP 5161 - Physical and Health Care Needs of Students with Autism and Severe Developmental Disabilities (2)
- EDSP 5200 - Advanced Education of the Exceptional Child (3)
- EDSP 5210 - Teaching Emergent and At-Risk Readers (3)
- EDSP 5310 - Introduction to Students with Autism and Severe Developmental Disabilities (2)
- EDSP 5320 - Introduction to Early Childhood Special Education (3)
- EDSP 5350 - Evaluation of Students with Disabilities (3)
- EDSP 5359 - Behavior Management for Classroom Teachers (3)

- EDSP 5360 - Advanced Behavior Management (3)
- EDSP 5361 - Practicum in Behavioral Management Techniques (1)
- EDSP 5370 - Screening, Diagnosing and Prescribing Instruction (3)
- EDSP 5385 - Introduction to Cross-Categorical Special Education (3)
- EDSP 5420 - Methods of Cross-Categorical Special Education (3)
- EDSP 5440 - Curriculum and Methods for Teaching Early Childhood Special Education (3)
- EDSP 5450 - Augmentative and Alternative Communication (3)
- EDSP 5510 - Fundamentals of Autism Spectrum Disorders (3)
- EDSP 5511 - Behavioral Interventions for Students with Autism Spectrum Disorders (3)
- EDSP 5512 - Communication and Social Skills in Students with Autism Spectrum Disorders (3)
- EDSP 5513 - Early Intervention in Children with Autism Spectrum Disorders (3)
- EDSP 5514 - Classroom Strategies for Students with Autism Spectrum Disorders (3)
- EDSP 5515 - Assessment and Planning for Students with Autism Spectrum Disorders (3)
- EDSP 5516 - Issues and Trends in Autism Spectrum Disorders (3)
- EDSP 5620 - Evaluation of Abilities and Achievement (3)
- EDSP 5690 - IEP and the Law (3)
- EDSP 5700 - Advanced Organization and Administration of Special Education (3)

Autism Spectrum Disorders (ASD) Area (8342)

Required Area Courses: 27 Semester Hours

- EDSP 5100 - Introduction to Graduate Study in Special Education (3)
- EDSP 5200 - Advanced Education of the Exceptional Child (3)

- EDSP 5350 - Evaluation of Students with Disabilities (3)
  OR
- EDSP 5620 - Evaluation of Abilities and Achievement (3)

- EDSP 5510 - Fundamentals of Autism Spectrum Disorders (3)
- EDSP 5511 - Behavioral Interventions for Students with Autism Spectrum Disorders (3)
- EDSP 5512 - Communication and Social Skills in Students with Autism Spectrum Disorders (3)
- EDSP 5513 - Early Intervention in Children with Autism Spectrum Disorders (3)
- EDSP 5514 - Classroom Strategies for Students with Autism Spectrum Disorders (3)
- EDSP 5515 - Assessment and Planning for Students with Autism Spectrum Disorders (3)

Advanced Behavior Management Area (8343)

Required Area Courses: 27 Semester Hours

- COUN 5230 - Counseling Diverse Populations (3)
- EDSP 5140 - Collaborating with Professionals and Families of Students with Exceptionalities (3)
- EDSP 5359 - Behavior Management for Classroom Teachers (3)
- EDSP 5375 - Trauma Informed Care for Schools (3)
- EDSP 5380 - Readings and Contemporary Issues (1-3) (3)
- EDSP 5360 - Advanced Behavior Management (3)
- EDSP 5382 - Inclusion and Intervention Strategies (3)
- EDSP 5383 - Observing, Coaching and Collaborating for Change (3)

- EDSP 6300 - Advanced Behavior Management Practicum (3)

Minimum Graduate Hour Total: 30 Semester Hours

Aided by an adviser in the student's area of specialization, each student shall select courses in the area of specialization. These areas of specialization include: Behavioral Disorders, Early Childhood Special Education, Learning Disabilities, Intellectual Disabilities, and Autism/Severe Developmental Disabilities.

Harmon College of Business and Professional Studies

Ward Edwards 1600 • 660-543-8577
ucmo.edu/harmon

College Mission

Our mission is to empower the next generation of professionals to lead and serve their organizations, professions, and communities. We carry out this mission by providing an accessible, applied, and challenging education while engaging in research, innovation, and professional collaboration.

College Admission Policies - The Harmon College of Business and Professional Studies (HCBPS) admits students to graduate programs based on evidence of adequate academic preparation and potential to perform high-quality graduate work. To be accepted to any HCBPS graduate program, an applicant must hold a baccalaureate degree from an accredited institution recognized by University of Central Missouri. Each SoBA graduate program has other specific requirements that must be satisfied prior to program admission. Admission to the university in a graduate student, non-degree status does not constitute admission to any SoBA graduate program. Students must be admitted to a specific HCBPS program in order to ensure that graduate work will be accepted for program completion.

In no case will a student be allowed to apply more than 9 graduate credit hours earned before official admission to a SoBA graduate degree program toward that degree.

International graduate students applying for admission to a degree program offered by the HCBPS must achieve a score of 550 or higher or 79-80 or higher if internet based) on the Test of English as a Foreign Language (TOEFL) with minimally established scores on each sub test. Alternative English language requirements are stated in the Admission to Graduate Studies section of this catalog.

Students who are admitted to HCBPS graduate programs must enroll in program courses within an 18-month period following the program admission date. After 18 months, the admission is invalid and the student must reapply. All provisions of the Graduate Catalog in effect at the time of subsequent application for admission will apply.

Master of Business Administration (55-505) (33 hours)

Additional information regarding the MBA program can be obtained at ucmo.edu/mba.

Student Learning Outcomes

The graduate with a Master of Business Administration (M.B.A.) degree will:

- Business Competency: Synthesize core business skills and knowledge to make business decisions.
- Decision Making: Identify problems and opportunities, obtain relevant information, analyze and evaluate alternative courses of action, select and defend an ethical course of action.
- Communication: Effectively communicate in both verbal and written form.
- Leadership and Teamwork: Lead (and inspire) others through effective teamwork.

The Master of Business Administration (M.B.A.) is a professional degree that is offered as an interdisciplinary program.

The M.B.A. program prepares students to assume positions of leadership and responsibility by providing:

- A common body of knowledge that is applicable to the management of organizations.
- Skills and abilities to identify problems and opportunities, obtain relevant information, analyze and evaluate alternative courses of action, and operationalize a selected course of action.
- Simulation and practice needed to experience and integrate the concepts and techniques from the functional areas of business.
- An understanding of the problems and opportunities resulting from environmental, multicultural and global forces impacting management.

Admission Requirements

Beyond the University and College admission requirements, applicants for the M.B.A. program must meet the following additional admission requirements:

Applicants for the M.B.A. program must have a completed undergraduate degree (in any discipline) from an accredited institution and have earned a minimum undergraduate GPA of 3.0 (on a 4.0 scale). No more than 3 repeated courses are allowed.

The GMAT and GRE are not required for admission. However, students must be prepared for the rigor of quantitative analysis in order to be successful in the program. College Algebra and Statistics are required prerequisites; applicants should have earned grades in each of B or higher.

Conditional Admission: Students who do not meet the requirements above may be conditionally admitted with a GPA of 2.5 or higher. Conditionally-admitted students will be allowed to take the first course, BADM 5400 MBA Knowledge Foundations (3), only. Upon earning a B or higher, the student will be fully admitted. If the student earns a C, they will be on academic probation and must raise their GPA to 3.0 or higher within 3 semesters. If the student earns a D or F, they will be dismissed from the program.

All concentration areas are available 100% online, while several are available on-campus in Warrensburg in a hybrid format.

- U.S. Domestic Students can apply for the following concentration areas:
    - Airport Management
    - Corporate Training
    - Finance
    - General Business
    - Healthcare Administration
    - Management & Organizational Leadership
    - Marketing
- International Students can apply for the following concentration areas:
    - Corporate Training
    - Finance
    - General Business
    - Management & Organizational Leadership
    - Marketing

International Students may opt to study from their home countries or on campus. Those who are conditionally admitted must begin studying from their home countries and may only take BADM 5400 MBA Knowledge Foundations.

M.B.A. Ongoing Enrollment Requirements

Beyond the University and College admission requirements, candidates for the M.B.A. program who earn a course grade lower than C will prompt review by M.B.A. Program Director and possible dismissal from the program.

All course work associated with a "U" grade must be completed within the following session. Students who earn a "U" must petition the M.B.A. Director to enroll in courses while completing the "U" course.

Program Requirements

During the M.B.A. program, students are required to demonstrate competency in knowledge, skills and abilities requisite to success as a practicing manager. Each M.B.A. course includes a significant written and oral presentation component. A thesis is not required. A minimum of 17 of 33 semester hours of program coursework must be taken with the following business prefixes: ACCT, BADM, BLAW, CIS, ECON, FIN, HRM, MGT, MKT, or RMI. Students will be assessed on student learning outcomes through a combination of course-based assessments as well as a capstone exam to be completed in the final semester of a student's program. Students must complete the capstone exam in order to be eligible for graduation.

The M.B.A. Program consists of 3 components:

1. Foundations (3)
2. Core (12)
3. Area of Emphasis (18)

MINIMUM GRADUATE HOUR TOTAL: 33 Sem. Hours

1. M.B.A. Foundations: 3 Semester Hours *

In order to ensure that all candidates have the same foundational level of understanding, the foundations course allows students to self-study and progress independently. This course is a requirement for all students entering the program.
BADM 5400 - MBA Knowledge Foundations (.5-3) (3)

2. M.B.A. Required Core Courses: 12 Semester Hours

These courses are required of all MBA students.

- ACCT 5105 - Accounting for Managers (2)
- CIS 5605 - Information Management Systems (2)
- ECON 5005 - Economic Analysis for Business Decisions (2)
- FIN 5805 - Short-Term Financial Management (2)
- MGT 5355 - Management & Strategy (2)
- MKT 5410 - Marketing Research Design (2)

3. M.B.A. Area: 18 Semester Hours

Choose one of the following emphasis areas: Airport Management, Corporate Training, Finance, General Business, Healthcare Administration, Management and Organizational Leadership, or Marketing. See individual area in the following section for required courses associated with area choice.

Airport Management Area (5062)

Required Courses: 16 Semester Hours

- AVIA 5030 - Airport Planning and Design (3)
- AVIA 5100 - Airport Leadership - Administration and Planning (2)
- AVIA 5101 - Airport Leadership - Operations and Communications (2)
- AVIA 5300 - Airport Finance (3)
- AVIA 5510 - Aviation Safety Program Management (3)
- PR 5620 - Strategic Communications (3)

Electives: 2 Semester Hours **

Graduate Electives: 2 Semester Hours**

**Graduate electives must be taken at the 5000 or 6000 level from one of the following business prefixes: ACCT, BADM, BLAW, CIS, ECON, FIN, HRM, MGT, MKT, RMI, or another MBA-approved discipline.

Corporate Training Area (5065)

Required Courses: 9 Semester Hours

- INST 5100 - Foundations of Educational Technology (3)
- INST 5500 - Online Course Development (3)
- HRM 5340 - Needs Assessment (1)
- HRM 5341 - Selecting Materials and Delivery Methods (1)
- HRM 5342 - Delivery and Evaluation (1)

Electives: 9 Semester Hours

Instructional Technology Electives: 6 Semester Hours

- INST 5150 - Design and Production of Media for Instruction (3)
- INST 5220 - Communication in Online Learning Communities (3)
- INST 5320 - Assessing and Evaluating Online Instruction (3)

Management Electives: 3 Semester Hours

- MGT 5320 - Learning Organization (3)
- MGT 5325 - Strategic Organizational Communication (3)

Finance Area (5053)

Required Courses: 9 Semester Hours

- FIN 5800 - Managerial Finance (3)
- FIN 5830 - Advanced Financial Institutions and Markets (3)
- FIN 5840 - Investment Analysis and Practice (3)

Electives: 9 Semester Hours **

Finance Electives: 6 Semester Hours

Graduate Electives: 3 Semester Hours

**Graduate electives must be taken at the 5000 or 6000 level from one of the following business prefixes: ACCT, BADM, BLAW, CIS, ECON, FIN, HRM, MGT, MKT, RMI, or another MBA-approved discipline.

General Business Area (5056)

Graduate Electives: 18 Semester Hours**

**Graduate electives must be taken at the 5000 or 6000 level from one of the following business prefixes: ACCT, BADM, BLAW, CIS, ECON, FIN, HRM, MGT, MKT, RMI, or another MBA-approved discipline.

Healthcare Administration Area (5059)

Required Courses: 18 Semester Hours

- BLAW 5710 - Law and Ethics in Healthcare (3)
- CIS 5640 - Healthcare Information Systems (3)
- MKT 5400 - Marketing Strategy (3)
- RMI 5105 - Health Insurance & Employee Benefits (3)

- BADM 6420 - Healthcare Business Foundations (3) (3)
  OR
- BADM 6430 - Graduate Internship in Healthcare Administration (1-3) (3)

- MGT 5325 - Strategic Organizational Communication (3)
  OR
- PR 5620 - Strategic Communications (3)

Management and Organizational Leadership Area (5061)

Required Courses: 15 Semester Hours

- HRM 5960 - Employment and Development (3)
- MGT 5310 - Leading and Guiding Change (3)
- MGT 5320 - Learning Organization (3)
- MGT 5325 - Strategic Organizational Communication (3)
- MGT 5340 - Building Leadership Credibility (3)

Graduate Electives: 3 Semester Hours**

**Graduate electives must be taken at the 5000 or 6000 level from one of the following business prefixes: ACCT, BADM, BLAW, CIS, ECON, FIN, HRM, MGT, MKT, RMI, or another MBA-approved discipline.

Marketing Area (5054)

Required Courses: 9 Semester Hours

- MKT 5400 - Marketing Strategy (3)

- MKT 5405 - Marketing Theory and Behavior (3)
- MKT 5480 - Inbound Marketing Strategy (3)

Electives: 9 Semester Hours **

Marketing Electives: 6 Semester Hours

Graduate Electives: 3 Semester Hours

**Graduate electives must be taken at the 5000 or 6000 level from one of the following business prefixes: ACCT, BADM, BLAW, CIS, ECON, FIN, HRM, MGT, MKT, RMI, or another MBA-approved discipline.

Minimum Graduate Hour Total: 33 Semester Hours

Department of Accountancy, Big Data Analytics, and Computer Information Systems

Accountancy, MA (52-504) (30 hours) [Also available as an accelerated program]

The Master of Arts in Accountancy is designed to prepare students for professional careers in accountancy. The program includes a common core of study in financial reporting and analysis, taxation, and data analytics. In addition, the degree offers two Emphasis Areas of study that provide graduate level exposure to competencies included in the examinations for Certified Public Accountant (CPA) and Certified Management Accountant (CMA). The Master of Arts in Accountancy is also offered as part of an Accelerated Bachelor's/Master's Program.

UCM's accountancy program is one of only 190 accountancy programs accredited by the Association to Advance Collegiate Schools of Business (AACSB).

Student Learning Outcomes

Accountancy has identified the following graduate student learning outcomes:

1. Students will be able to competently solve and evaluate complex accounting problems.
2. Students will be able to design, execute, and interpret effective data analysis.
3. Students will be able to communicate professionally.

Admission Requirements

Beyond the University and College admission requirements, applicants for the Accountancy program must meet the following additional admission requirements:

1. A student who has earned a B.S.B.A. in Accountancy from the University of Central Missouri is automatically eligible for admission.
2. A student who has earned a B.S.B.A. degree (any major) from an AACSB-International accredited school with a GPA of 3.50 or higher is automatically eligible for admission.
3. If the criteria for admission in #1 or #2 above is not met, the following criteria apply:
    1. A minimum undergraduate grade point average of 2.65, and
    2. A minimum score of 400 on the Graduate Management Admission Test (GMAT), and
    3. A minimum "admission score" based on one of the following criteria: (200 x undergraduate cumulative grade point average) + GMAT score > 1000. OR (200 x grade point average on last 60 hours of undergraduate credit) + GMAT score > 1050.

Note: In lieu of a GMAT score, a predicted GMAT score, based on GRE Verbal and Quantitative scores, may be used.

Required Undergraduate Foundational Courses: 0-46 Semester Hours

- ECON 1010 Principles of Macroeconomics (3)
- FIN 2801 Business Statistics I (3)
- FIN 3850 Principles of Finance (3)
- BLAW 2720 Legal Environment of Business (3)
- ACCT 1101 Foundations of Financial Reporting (3)
- ACCT 2102 Principles of Managerial Accounting (3)
- ACCT 2920 Cost and Managerial Accounting (3)
- ACCT 2901 Intermediate Financial Accounting I (3)
- ACCT 3102 Intermediate Financial Accounting II (3)
- ACCT 3103 Intermediate Financial Accounting III (3)
- ACCT 2960 Accounting Information Systems (3)
- ACCT 2930 Tax I (3)
- ACCT 4130 Tax II (3)
- ACCT 4105 Auditing (3)
- ACCT 4200 Governmental Accounting (3)

Accounting Core: 9 Semester Hours

- ACCT 5115 - Financial Reporting and Analysis (3)
- ACCT 5138 - Advanced Tax II (3)
- ACCT 5160 - Data Analytics for Accountants (3)

Choose an emphasis area: 21 Semester Hours

Emphasis Area 1: Certified Public Accountant (CPA)

- ACCT 5120 - Financial Accounting and Reporting I (3)
- ACCT 5140 - Financial Accounting and Reporting II (3)
- ACCT 5150 - Advanced Auditing (3)

Elective Courses

Select 12 semester hours of electives. Must be ACCT and selected with guidance from the School of Accountancy Graduate Coordinator. May not include more than 3 cr. hrs. of ACCT 5135.

Emphasis Area 2: Certified Management Accountant (CMA)

- ACCT 5101 - Managing Decision Making Using Excel (3)
- ACCT 5135 - Internship in Accounting (1-6) (3)
- ACCT 5155 - Fraud Risk Management/Examination (3)

Elective Courses

Select 12 semester hours of electives. To be selected with guidance from the School of Accountancy Graduate Coordinator. May include the following areas: ACCT (except ACCT 5135), BLAW, CIS, FIN, MGT, ECON, BADM, MKT, PR, RMI.

Minimum Graduate Hour Total: 30 Semester Hours

Note:

All courses in the degree must be completed with a C or better, with no more than two C's allowed.

Accelerated Program Notes:

The Accelerated model for this program is designed for the BSBA Accountancy.

Students should apply for admittance to the Accelerated Program at the beginning of the junior year, after earning at least 60 hours of undergraduate college credit that includes the 24 semester hours of BSBA pre-admission courses, ACCT 1101, ACCT 2102 and ACCT 2901. The application must be made prior to the student earning senior status in the BSBA in Accountancy, through School of Accountancy Graduate Coordinator.

Students must meet specific academic criteria for acceptance into the Accelerated program. The minimum criteria for acceptance are:

- Cumulative GPA of 3.00 (4.00 scale) or higher for the first 60 hours of undergraduate college credit.
- GPA of 3.00 (or above) on the 24 semester hours of BSBA pre-admission courses.
- Grade of B or higher in ACCT 1101, ACCT 2102 and ACCT 2901.

In order to remain in good standing, students must:

- Maintain an overall cumulative GPA of 3.00/(4.00 scale), and
- Earn a C or better in all accounting coursework taken in the senior year.

In any semester, if either condition is not met, students will become ineligible to continue in the Accelerated program.

Courses that an accelerated student may be eligible to include as overlap between the undergraduate and graduate programs:

ACCT 5030 - Tax II (3) (ACCT 4130)

ACCT 5101 - Managing Decision Making Using Excel (3) (ACCT 4101)

ACCT 5115 - Financial Reporting and Analysis (3) (ACCT 4114)

ACCT 5120 - Financial Accounting and Reporting I (3) (ACCT 4121)

ACCT 5135 - Internship in Accounting (1-6) (ACCT 4135)

ACCT 5137 - Advanced Tax I (3) (ACCT 4137)

ACCT 5138 - Advanced Tax II (3) (ACCT 4138)

ACCT 5140 - Financial Accounting and Reporting II (3) (ACCT 4140)

ACCT 5155 - Fraud Risk Management/Examination (3) (ACCT 4155)

ACCT 5160 - Data Analytics for Accountants (3) (ACCT 4161)

ACCT 5165 - Special Projects in Accounting (1-3) (ACCT 4165)

Big Data Analytics and Information Technology, MS (53-645) (30 hours)

Student Learning Outcomes

The graduate with a Master of Science degree in Big Data Analytics and Information Technology will use the knowledge and skills obtained in the program to:

- Apply different forms of analytical models (descriptive, predictive, and prescriptive) to improve business decision making.
- Develop hands on skills with analytical tools and software.
- Implement big data systems and clusters.
- Manage cloud computing environment.

Required Undergraduate Background Courses: 0-18 Semester Hours

The following undergraduate courses (or equivalents) are required. Some of the requirements may be waived on the basis of the Computer Information systems (CIS) track. Undergraduate work already completed may be used to satisfy these requirements.

- CIS 1627 Programming with Python (3)
- CIS 2630 Intermediate Programming (3)
- CIS 2665 Principles of Data Communications and Local Area Networking (3)
- CIS 3650 Database Management Systems (3)
- CIS 3660 Analysis and Design of Computer Information Systems (3)
- FIN 2801 Business Statistics I (3)

Required Graduate Courses: 15 Semester Hours

- CIS 5650 - Managing Information Security in Organizations (3)
- CIS 5660 - Legal Environment of Information Systems (3)
- CIS 5675 - Project Management (3)
- CIS 5690 - Advanced Systems Project (2-3)
- CIS 5760 - Advanced Applications Development Using JAVA (3)

Choose any 4 from the following: 12 Semester Hours

- CIS 5680 - Business Intelligence and Analytics (3)
- CIS 5681 - Big Data Solutions for Business (3)
- CIS 5685 - Information Visualization for Big Data Analytics (3)
- CIS 5686 - Business Applications of Machine and Deep Learning (3)
- CIS 5750 - Big Data Architecture (3)
- CIS 5780 - Data Resource Management (3)

Graduate Electives: 3 Semester Hours

Due to the applied nature of this program, students are required to take CIS 5670 - Internship in CIS (3) to meet the core requirement. If the student does not receive an internship, any other graduate level CIS course explicitly approved by the advisor, may be substituted.

- CIS 5670 - Internship in CIS (3)

Minimum Graduate Hour Total: 30 Semester Hours

Big Data System and Business Analytics Graduate Certificate (50-659) (15 hours)

The graduate certificate in Big Data System and Business Analytics is a fifteen credit hour program intended for professionals in any field that need a solid foundation in business intelligence and big data analytics. It will also be very useful to professionals seeking a career change. I.T. professionals with an undergraduate degree in Information Systems or Computer Science can advance their knowledge about the latest developments in business intelligence and big data analytics.

Program Description: The five required courses will prepare the students to analyze data and support business decisions with various tools. The certificate will be offered in Missouri Innovation Center in Lee's Summit. An on-line version will be considered in the future. Students will have to complete the five required courses with a B average or better.

Objectives:

- Analyze big data system architecture and know how to set up big data clusters
- Apply analytics to improve decision making.
- Apply different forms of analytics (descriptive, predictive and prescriptive) to various business problems, and develop a sound understanding of the methods used in each.
- Develop hands-on skills with analytical tools and software
- Design and work with cloud computing hardware and software.

Required Graduate Courses: 15 Semester Hours (any 5 courses from the following)

- CIS 5760 - Advanced Applications Development Using JAVA (3)
- CIS 5780 - Data Resource Management (3)
- CIS 5680 - Business Intelligence and Analytics (3)
- CIS 5681 - Big Data Solutions for Business (3)
- CIS 5685 - Information Visualization for Big Data Analytics (3)
- ECON 5005 - Economic Analysis for Business Decisions (2)

Minimum Graduate Hour Total: 15 Semester Hours

Computer Information Systems and Information Technology, MS (53-627) (30 hours)

Student Learning Outcomes

The graduate with a Master of Science degree in Computer Information Systems and Information Technology will be able to use their skills and knowledge to do the following:

- Each student can analyze strategies and demonstrate development of architecture, and familiarity with software tools and network analysis tools in the IT environment.
- Each student can conceptualize different components of a project plan and demonstrate estimation techniques in system planning.
- Each student shall be able to understand, collaborate, converse, write and present reports on issues related to personnel and financial aspects of the Information Systems area in corporate environment.

- Each student shall be able to understand organizational policies, recognize legal issues, appreciate ramification of changes in legal terms, and recognize ethical conflicts. (S)he should learn how to make right choices and defend resolutions in a corporate Information Systems Environment.
- Software Engineering Track - Design, Develop and Implement robust IT solutions using contemporary Architecture and Design methods and varied development platforms.
- Internet Track - Design, Develop and Implement robust Web based IT solutions.

Track Objectives and student outcomes -

Software Engineering Track:

- To understand systems architecture and systems development strategies.
- To be familiar with tools to develop quality software.
- To have in-depth knowledge of active directory design, installation and configuration.
- To be familiar with TCP/IP.
- To understand concepts of OO Design.
- To understand standard systems design strategies.
- To understand OO/COM implementation using. NET languages
- To be familiar with development of enterprise wide distributed systems using Visual Studio.

Internet Technologies Track:

- Develop client-based, multi-platform, dynamic Web content following a strong Web design philosophy.
- Develop server-based, dynamic Web content and in managing a Web server resources with consideration for organizational and technical issues.
- To have in-depth knowledge of active directory design, installation and configuration.
- To be familiar with TCP/IP.

The Computer Information Systems and Information Technology program is designed to serve two types of students. First, those who have an undergraduate degree and would like to make a career change to computer information technology, and second, those who are already in the information technology workforce and would like to enhance their career growth in a specialized area. Students may choose from two areas:

Software Engineering
Internet Technologies

Admission Requirements

Admission granted on the basis of person's academic aptitude and potential evaluated through academic record, work experience, and test scores. To be admitted to the program, a student must have a minimum undergraduate grade point average of 2.50. Candidates must complete the Graduate Record Examination (GRE) with a minimum score of 290 (new)/1000 (old score in any two areas) or Graduate Management Admission Test (GMAT) score of 500. Candidates with exceptional undergraduate performance may be considered with a lower GRE/GMAT score. GRE may be waived for candidates with at least 3 years of relevant experience in a US based corporation or a reputed multinational organization. GRE/GMAT is optional for people with degree in CIS/IT/CS from an AACSB or ABET accredited program with exceptionally high GPA. Submission of a Statement of Purpose and 3 letters of recommendation is OPTIONAL for admission. They may however be required when the student applies for Graduate Assistantship or Student Worker positions.

Required Undergraduate Background Courses: 0-15 Semester Hours

The following undergraduate courses (or equivalents) are required. Some of the requirements may be waived on the basis of the Computer Information systems (CIS) track. Undergraduate work already completed may be used to satisfy these requirements.

- CIS 1627 - Programming with Python (3)

- CIS 2630 - Intermediate Programming (3)
- CIS 2665 - Principles of Data Communications and Local Area Networking (3)
- CIS 3650 - Database Management Systems (3)
- CIS 3660 - Analysis and Design of Computer Information Systems (3)

Required Graduate Courses: 15 Semester Hours

- CIS 5650 - Managing Information Security in Organizations (3)
- CIS 5660 - Legal Environment of Information Systems (3)
- CIS 5675 - Project Management (3)
- CIS 5690 - Advanced Systems Project (2-3) (3)
- CIS 5755 - Software Engineering (3)

Track: 12 Semester Hours

Students must complete 4 courses in one of the following track areas. Advisor approval is required for any substitution.

Internet Technologies Track

- CIS 5610 - Internet for the Enterprise (3)
- CIS 5611 - Client-side Internet Resources (3)
- CIS 5612 - Server-side Internet Resources (3)
- CIS 5669 - Communications Network Management (3)
- CIS 5765 - Data Communication and Distributed Data Processing (3)

Software Engineering Track

- CIS 5606 - Advanced Applications Development Using Visual C# (3)
- CIS 5656 - Mobile Computing with iOS and Android (3)
- CIS 5661 - Advanced Analysis and Design of Computer Information Systems (3)
- CIS 5760 - Advanced Applications Development Using JAVA (3)
- CIS 5765 - Data Communication and Distributed Data Processing (3)

Graduate Electives: 3 Semester Hours

Due to the applied nature of this program, students are required to take CIS 5670 - Internship in CIS (3) to meet the core requirement. If the student does not receive an internship, any other graduate level CIS course explicitly approved by the advisor, may be substituted.

- CIS 5670 - Internship in CIS (3)

Minimum Graduate Hour Total: 30 Semester Hours

Department of Aviation

Department of Aviation
TR Gaines 210 • 660-543-4969
ucmo.edu/aviation

Aviation Safety, MS (53-158) (33 hours) [Also available as an accelerated program]

Student Learning Outcomes

The graduate with a Master of Science degree in Aviation Safety will be able to:

- Apply the knowledge and skills appropriate to aviation safety and aviation management.
- Understand and use specialized knowledge in aviation safety, and aviation safety program management.
- Gain an understanding of research methods and how they may be applied to the aviation industry.

This program is designed to prepare individuals for a career in aviation safety, safety program management, aviation management, airport safety, and cabin or maintenance safety. The degree is especially relevant for those who have earned a baccalaureate degree in aviation or those who are working in the field require more specialized knowledge.

Admission Requirements

To be accepted into this program, a student must have a minimum grade point average of 2.70 in their undergraduate major. Suitable educational background includes a four-year bachelor's degree in an aviation or safety related field, or at least three years of work experience in aviation or safety for acceptance into this degree program. Additionally, a statement of purpose describing academic and professional achievements and goals as well as two letters of recommendation will be required. Exceptions to this standard may be granted on a case by case basis. A comprehensive examination is required. This program only admits students for the Fall and Spring semesters only.

Joint MS in Aviation Safety with the University of Management and Technology in Pakistan

The UCM Aviation Safety program has a joint degree articulation with the University of Management and Technology. Under this agreement, students may take a combination of six classes from UCM and five classes from UMT. Students in this program must be accepted by both UCM and UMT to participate, and all coursework at UCM will be completed 100% online asynchronously for student convenience. Interested students should contact Prof. Andy Multer (multer@ucmo.edu), the UCM Department of Aviation Graduate Coordinator, and Dr. Ahmad Aizaz (ahmade.aizaz@umt.edu.pk), the Associate Principal for the UMT Institute of Aviation Studies.

Required Graduate Courses: 33 Semester Hours

Coursework: 24 Semester Hours

- AVIA 5002 - Professional Ethics in Aviation (3)
- AVIA 5030 - Airport Planning and Design (3)
- AVIA 5500 - Aviation Systems Safety and Risk Management (3)
- AVIA 5510 - Aviation Safety Program Management (3)
- AVIA 5590 - Aviation Law (3)
- AVIA 5605 - Psychological Human Factors (3)
- AVIA 5610 - Physiological Human Factors (3)
- AVIA 5940 - Current Literature and Research (3)

One of the following (depends if taken on campus/online): 3 Semester Hours

- AVIA 5520 - Aircraft Accident Investigation (3) (on campus)
- AVIA 5530 - Principles of Aviation Accident Causation (3) (online)

Departmentally Approved Electives: 6 Semester Hours

- AVIA 5420 - Air Transportation (3)

- AVIA 5430 - Corporate Aviation Management (3)
- AVIA 5550 - Aviation Safety (3)
- Any 5000 level INDM or SAFE course

Minimum Graduate Hour Total: 33 Semester Hours

Accelerated Program Notes:

The Accelerated model for this program designed for the BS Aviation Management - Airport Management Option.

UCM students with a major GPA of at least 2.70 may consult with their faculty advisor and complete a school application to declare the accelerated BS Aviation Management - Airport Management - MS Aviation Safety option. Prior to beginning the graduate portion of the program, students in the accelerated program will need to apply to the UCM Graduate School for formal admittance to the Accelerated BS/MS program. Admission into the Accelerated BS/MS program requires a minimum undergraduate cumulative GPA of 2.70 or higher

Courses that an accelerated student may be eligible to include as overlap between the undergraduate and graduate programs:

AVIA 5030 - Airport Planning and Design (3) (AVIA 4030)

AVIA 5550 - Aviation Safety (3) (AVIA 4500)

AVIA 5590 - Aviation Law (3) (AVIA 4090)

AVIA 5420 - Air Transportation (3) (AVIA 4420) **OR** AVIA 5430 - Corporate Aviation Management (3) (AVIA 4430)

The Accelerated model for this program designed for the BS Aviation Management - Flight Operations Management Option.

UCM students with a major GPA of at least 2.70 may consult with their faculty advisor and complete a school application to declare the accelerated BS Aviation Management - Flight Operations Management - MS Aviation Safety option. Prior to beginning the graduate portion of the program, students in the accelerated program will need to apply to the UCM Graduate School for formal admittance to the Accelerated BS/MS program.

Courses that an accelerated student may be eligible to include as overlap between the undergraduate and graduate programs:

AVIA 5550 - Aviation Safety (3) (AVIA 4500)

AVIA 5590 - Aviation Law (3) (AVIA 4090)

AVIA 5610 - Physiological Human Factors (3) (AVIA 4610)

AVIA 5420 - Air Transportation (3) (AVIA 4420) **OR** AVIA 5430 - Corporate Aviation Management (3) (AVIA 4430)

The Accelerated model for this program designed for the BS Professional Pilot.

UCM students with a major GPA of at least 2.70 may consult with their faculty advisor and complete a school application to declare the accelerated BS Professional Pilot - MS Aviation Safety option. Prior to beginning the graduate portion of the program, students in the accelerated program will need to apply to the UCM Graduate School for formal admittance to the Accelerated BS/MS program.

Courses that an accelerated student may be eligible to include as overlap between the undergraduate and graduate programs:

AVIA 5550 - Aviation Safety (3) (AVIA 4500)

AVIA 5590 - Aviation Law (3) (AVIA 4090)

AVIA 5610 - Physiological Human Factors (3) (AVIA 4610)

AVIA 5420 - Air Transportation (3) (AVIA 4420) **OR** AVIA 5430 - Corporate Aviation Management (3) (AVIA 4430)

Department of Criminal Justice and Criminology

Criminal Justice and Criminology, MS (53-682) (30 hours) [Also available as an accelerated program]

Student Learning Outcomes

The graduate with a Master of Science degree in Criminal Justice will use the knowledge and skills obtained in the program to:

- Critically assess major issues within the criminal justice system.
- Construct policy implications using multidisciplinary criminal justice theories.
- Access or conduct original, appropriate social science research to apply research findings to problems with crime or the criminal justice system.
- Generate or evaluate arguments regarding criminal justice issues through advanced academic writing.

This program is designed for those students who wish to enter and/or progress in the criminal justice fields of law enforcement, corrections, and juvenile justice; or who plan to seek positions in leadership, professional specialization, research, or instruction in criminal justice. The program includes two areas to ensure students receive the skills and experience necessary for their chosen career path.

Area 1: Theoretical Criminal Justice and Criminology is a criminal justice focused curriculum that includes criminological theory, quantitative analysis, and an applied research component. This area is ideal for those interested in a career in a research organization or continued education at the Ph.D. level.

Area 2: Criminal Justice Administration and Leadership is an interdisciplinary curriculum that includes ethical leadership, budgeting, and public administration, and a practical grant-writing capstone course. This area is ideal for working adults in the field who are seeking promotion into higher administrative ranks.

Admission Requirements

To be considered for admission into the program of study for the Criminal Justice M.S.degree, the applicant must have earned a 120 credit hour undergraduate degree in criminal justice or a related field prior to enrollment in program coursework at UCM. Those with fewer than 120 credit hours must complete up to 21 hours of additional coursework as identified by the graduate coordinator.

Applicants who have earned a minimum grade point average of 3.00 on all undergraduate course work and 3.00 on all graduate coursework must submit a complete graduate application, two (2) letters of recommendation, and a personal statement. A student without a criminal justice degree may be required to complete up to 15 hours of background courses in criminal justice prior to taking graduate level courses. The requirement to take background courses may be waived by the Criminal Justice Coordinator based on previous courses taken and/or relevant professional experience.

Students with a cumulative undergraduate grade point average of 2.99 or below are considered for admission by the Criminal Justice Graduate Committee by completing the application materials described above, in addition to submitting a written statement documenting relevant work experience and/or explaining a GPA lower than 3.0.

Application due dates - To be considered for admission into the Criminal Justice M.S. degree program and to ensure available capacity, early submission of application materials is recommended. Priority consideration will be given to students who apply at the beginning of the semester prior to the anticipated enrollment term. To apply later will put students at a distinct disadvantage regarding course availability. The Criminal Justice Graduate Committee will meet monthly to review completed applications. All applicants will be notified of their admission status via email and/or the address provided on the application. Admission decisions will be based upon the merit of the application and the available space in the program for the student.

Prior to completion of Area 1 of the program, a student must select either the thesis or non-thesis option. The thesis option requires the student to complete three hours of thesis (CJ 6600) as part of the 30-hour degree program. Students in the non-thesis option must take three hours of CJ 5600 - Competencies in Criminal Justice (3) as part of their program of study/degree audit. Consent to enroll in additional arranged courses must be obtained from the graduate program coordinator. These include CJ 5600, CJ 5602, CJ 6000 and/or CJ 6600.

Required Graduate Courses: 3 Semester Hours

- CJ 5002 - Criminal Justice Philosophy and Policy (3)

Area 1: Theoretical Criminal Justice and Criminology: 27 Semester Hours

- CJ 5003 - Advanced Criminology (3)
- CJ 5301 - Legal Aspects of the Criminal Justice System (3)
- CJ 5610 - Statistics for Criminal Justice (3)
- CJ 5620 - Methods of Criminal Justice Research (3)

Research: 15 Semester Hours

Thesis Option

- CJ 6000 - Advanced Research (1-3) (3)
- CJ 6600 - Thesis (3)

Approved Graduate Electives: 9 Semester Hours

OR

Non-Thesis Option

- CJ 5600 - Competencies in Criminal Justice (3)

Approved Graduate Electives: 12 Semester Hours

Area 2: Criminal Justice Administration and Leadership: 27 Semester Hours

- ACCT 5200 - Budgeting and Financial Management for Government Entities (3)
- CJ 5101 - Criminal Justice Planning (3)
- CJ 5102 - Ethical Leadership in Criminal Justice (3)
- CJ 5601 - Grant Writing in Criminal Justice (3)
- POLS 5571 - Municipal Administration (3)
- POLS 5573 - Administrative Law (3)

Approved Graduate Electives: 9 Semester Hours

- CJ 5301 - Legal Aspects of the Criminal Justice System (3)
- CJ 5620 - Methods of Criminal Justice Research (3)
- CJ 5625 - Crime Analysis (3)
- POLS 5511 - Public Policy (3)
- POLS 5572 - Federalism and Intergovernmental Relations (3)

Minimum Graduate Hour Total: 30 Semester Hours

Accelerated Program Notes:

The Accelerated model for this program is designed for the BS Criminal Justice and Criminology.

UCM students with a major GPA of at least 3.50 may consult with their faculty advisor regarding declaring the accelerated BS Criminal Justice and Criminology - MS Criminal Justice and Criminology option. Prior to beginning the graduate portion of the program, students in the accelerated program will need to apply to the UCM Graduate School for formal admittance to the Accelerated BS/MS program. A GRE will not be required for students in the Accelerated program.

Courses that an accelerated student may be eligible to include as overlap between the undergraduate and graduate programs:

CJ 5001 - Special Projects in Criminal Justice Administration (1-3) (CJ 4000)

CJ 5002 - Criminal Justice Philosophy and Policy (3) (CJ 4002)

CJ 5003 - Advanced Criminology (3) (CJ 4003)

CJ 5010 - Criminal Justice International Study (3) (CJ 4010)

CJ 5090 - Miscarriages of Justice (3) (CJ 4090)

CJ 5403 - Sexual Assault and the Criminal Justice System (3) (CJ 4403)

CJ 5420 - Organized Crime (3) (CJ 4420)

CJ 5444 - Terrorism (3) (CJ 4444)

CJ 5488 - Homeland Security (3) (CJ 4488)

CJ 5920 - Gender and Crime (3) (CJ 4920)

Policy & Planning Graduate Certificate (50-663) (12 hours)

Certificate Learning Objectives

After completion of the certificate courses the student will be able to:

- Identify the steps in the strategic planning process and apply them to a specific criminal justice agency or issue.
- Analyze how public response to criminal justice issues (usually driven by the media) and legislative actions (usually driven by public response) contribute to the development of criminal justice policy.

- Examine basic management and leadership skills necessary for criminal justice administrators as well as major theories of administration.
- Discuss the nexus between crime analysis, field and investigative operations, and administrative bureaus as well as collect, collate, analyze, and use crime data to predict future crime occurrences.

Admission Requirements

To be considered for admission to the UCM graduate Certificate in Policy & Planning, the student must have a minimum cumulative grade point average (GPA) of 2.75 at the university level and completed a Bachelor's degree.

A maximum of three units of transfer credit may be applied toward requirements in the Certificate in Policy & Planning. Courses taken toward the graduate certificate program may be applied to a UCM Master of Science degree.

Application Process

Admission requirements are identical to existing UCM and departmental admission requirements.

Required Graduate Courses: 12 Semester Hours

- CJ 5002 - Criminal Justice Philosophy and Policy (3)
- CJ 5101 - Criminal Justice Planning (3)
- CJ 5102 - Ethical Leadership in Criminal Justice (3)
- CJ 5625 - Crime Analysis (3)

Minimum Graduate Hour Total: 12 Semester Hours

Terrorism and Homeland Security Graduate Certificate (50-657) (12 hours)

The Terrorism and Homeland Security graduate certificate program is designed to help students meet professional objectives. Each course contains specific and relevant information regarding the theoretical and practical aspects of terrorism and those who perpetrate it. The student may choose to use this certificate as a career enhancement tool for entry level employment or advancement in a law enforcement or other agency.

Certificate Learning Objectives

After completion of the certificate courses the student will be able to:

- Analyze how public response to criminal justice issues (usually driven by the media) and legislative actions (usually driven by public response) contribute to the development of criminal justice policy.
- Apply various criminological theories to account for crime variations across different countries.
- Describe important patterns of international and domestic terrorism over time and explain terrorism in the context of various criminological perspectives.
- Compare and contrast the areas of homeland security including security, preparedness and mitigation, and recovery, as well as the agencies responsible for such activities.

Admission Requirements

To be considered for admission to the UCM graduate Certificate in Terrorism and Homeland Security, the student must have a minimum cumulative grade point average (GPA) of 2.75 at the university level and completed a Bachelor's degree.

A maximum of three units of transfer credit may be applied toward requirements in the Certificate in Terrorism and Homeland Security. Courses taken toward the graduate certificate program may be applied to a UCM Master of Science degree.

Application Process

Admission requirements are identical to existing UCM and program admission requirements.

Required Graduate Courses: 12 Semester Hours

- CJ 5002 - Criminal Justice Philosophy and Policy (3)
- CJ 5006 - Comparative and International Criminal Justice Systems (3)
- CJ 5444 - Terrorism (3)
- CJ 5488 - Homeland Security (3)

Department of Economics and Finance

Finance Graduate Certificate (50-661) (17 hours)

The graduate with a certificate in Finance will use the knowledge and skills obtained in the program to:

- Take the initiative in identifying and pursuing opportunities for financial growth or
- improvement.
- Make value-additive decisions using fundamental financial models.
- Effectively communicate analyses and decisions to a wide variety of audiences.
- Implement investment and financing decisions using a legal and ethical framework.

To be accepted into this program, a student must have an undergraduate degree in Business, or course work equivalent to a BSBA degree at UCM, with a minimum grade-point average of 3.0 in upper-level finance courses.

Required Graduate Courses: 11 Semester Hours

- FIN 5800 - Managerial Finance (3)
- FIN 5805 - Short-Term Financial Management (2)
- FIN 5830 - Advanced Financial Institutions and Markets (3)
- FIN 5840 - Investment Analysis and Practice (3)

Electives: 6 Semester Hours

- FIN 5831 - Student Managed Investment Fund (3-6)
- FIN 5880 - Bank Management (3)
- FIN 5817 - Managing Financial Derivatives (3)
- FIN 5825 - International Finance (3)
- FIN 6860 - Readings in Finance (1-3)

Minimum Graduate Hour Total: 17 Semester Hours

At least 9 hours must be taken at or above the 5000 level.
Some of these courses may have prerequisites not listed in this certificate description, see course descriptions in the appropriate catalog.

Department of Human Services

Human Development and Family Science, MS (53-897) Human Development and Family Science Option (0020) (30 hours)

Human Development and Family Science Program Mission - The mission of the Human Development and Family Science (HDFS) graduate program is to prepare highly qualified graduates to work effectively in leadership and direct service positions to promote the well-being of individuals and families in our diverse society. This mission is accomplished through a comprehensive curriculum rooted in theory, research, and evidence-based practices. The program provides professional learning experiences, leadership opportunities, and faculty guidance.

Student Learning Outcomes

The graduate with a Master of Science in Human Development and Family Science will use the knowledge and skills obtained in the program to:

Student will:

- Able to use critical thinking skills when working with individuals and families.
- Apply developmentally appropriate practices to promote the optimal development of individuals and families.
- Demonstrate ability to lead and advocate for the improvement of individuals and families with a commitment to ethics.

All Human Development and Family Science graduates will demonstrate competence in the following National Council on Family Relations' competencies:

- Families and individuals in societal contexts: an understanding of families and their relationship to other institutions, such as educational, governmental, religious, and occupational institutions in society.
- Internal Dynamics of Families: an understanding of family strengths and weaknesses and how family members relate to each other.
- Human Growth and Development across the Lifespan: an understanding of the developmental changes of individuals in families throughout the lifespan.
- Human Sexuality: an understanding of the physiological, psychological, & social aspects of sexual development throughout the lifespan, to achieve healthy sexual adjustment.
- Interpersonal Relationships: An understanding of the development and maintenance of interpersonal relationships.
- Family Resource Management: An understanding of the decisions individuals and families make about developing and allocating resources including time, money, material assets, energy, friends, neighbors, and space, to meet their goals.
- Parent Education and Guidance: An understanding of how parents teach, guide and influence children and adolescents as well as the changing nature, dynamics and needs of the parent/child relationship across the lifespan.
- Family Law and Public Policy: An understanding of the legal issues, policies, and law influencing the well-being of families.
- Professional Ethics and Practice: An understanding of the character and quality of human social conduct, and the ability to critically examine ethical questions and issues as they relate to professional practice.

- Family Life Education Methodology: An understanding of the general philosophy and broad principles of family life education in conjunction with the ability to plan, implement, and evaluate such educational programs.

The degree in Human Development and Family Science consists of 30 credit hours. This program operates under the educational standards of the National Council on Family Relations and the Code of Ethics for Family Life Educators.

Admission Requirements

1. Applicants must be fully admitted by UCM graduate studies and have completed a bachelor's degree from an accredited institution.
2. Applicants must possess an overall undergraduate grade point average of at least 2.50, or a 3.0 in their major.
3. Applicants should have completed at least nine college credit hours in social or behavioral sciences. Based on transcript analysis, students may be required to complete up to 15 credit hours of background courses in HDFS prior to taking graduate level courses.
4. Applicants must submit a resume, admission essay and three recommendation forms (link provides detailed information) through their Student Portal.
5. Students are able to apply for the fall, spring or summer semesters.

Required Major Courses: 21 Semester Hours

- HDFS 5050 - Ethics and Professional Studies in Family Science (3)
- HDFS 5110 - Family Theory (3)
- HDFS 5120 - Human Development Theory (3)
- HDFS 5500 - Research Methods in Human Development and Family Science (3)
- HDFS 6410 - Diversity and Family Interventions (3)
- HDFS 6730 - Professional Assessment (3)
- HDFS 6850 - Integrative Project (3)

Required Human Development and Family Science Option Courses: 9 Semester Hours

- HDFS Advisor Approved Electives (3)
- HDFS 6890 - Thesis (1-6) (6) or HDFS Advisor Approved Electives (6)

Minimum Graduate Hour Total: 30 Semester Hours **

*Approved Electives will be approved by faculty advisor based on student's professional goals.

**HDFS is an accelerated 30 credit hour program and can be completed in 12 months.

Human Development and Family Science, MS (53-897) Marriage and Family Therapy Option (0021) (54 hours)

Human Development and Family Science Program Mission - The mission of the Human Development and Family Science program is to provide the academic, clinical and professional training necessary for graduates to become lifelong learners, dedicated to service, with the knowledge, skills and confidence to succeed and lead in the region, state, nation and world in the field of health and human services, including but not limited to marriage and family therapy, community-based agencies, child and youth programs, and family life education.

Student Learning Outcomes

Students will graduate with a Master of Science in Human Development and Family Science.

All Human Development and Family Science graduates will demonstrate competence in the following National Council on Family Relations' competencies:

- Families and individuals in societal contexts: an understanding of families and their relationship to other institutions, such as educational, governmental, religious, and occupational institutions in society.
- Internal Dynamics of Families: an understanding of family strengths and weaknesses and how family members relate to each other.
- Human Growth and Development across the Lifespan: an understanding of the developmental changes of individuals in families throughout the lifespan.
- Human Sexuality: an understanding of the physiological, psychological, & social aspects of sexual development throughout the lifespan, to achieve healthy sexual adjustment.
- Interpersonal Relationships: An understanding of the development and maintenance of interpersonal relationships.
- Family Resource Management: An understanding of the decisions individuals and families make about developing and allocating resources including time, money, material assets, energy, friends, neighbors, and space, to meet their goals.
- Parent Education and Guidance: An understanding of how parents teach, guide and influence children and adolescents as well as the changing nature, dynamics and needs of the parent/child relationship across the lifespan.
- Family Law and Public Policy: An understanding of the legal issues, policies, and law influencing the well-being of families.
- Professional Ethics and Practice: An understanding of the character and quality of human social conduct, and the ability to critically examine ethical questions and issues as they relate to professional practice
- Family Life Education Methodology: An understanding of the general philosophy and broad principles of family life education in conjunction with the ability to plan, implement, and evaluate such educational programs.

MFT Specialization Mission

The Marriage and Family Therapy specialization aims to train clinically competent Marriage and Family Therapists through quality academic instruction and supervised clinical practice. Our goal is train therapists that are clinically effective, guided by an awareness of systemic processes, devoted to multicultural competence, and to ethical and evidence-based practice.

MFT Specialization Goals

Pursuant to our mission, the Marriage and Family Therapy specialization has established four overarching goals. Each of these goals informs Student Learning Outcomes (SLOs) by which we measure success.

Clinical Effectiveness

- Students will demonstrate fundamental skills of therapy and family systems theories with individuals, couples and families.
- Students will demonstrate ability to effectively apply therapy models and interventions to individuals, couples, and families.

Diversity

- Students will demonstrate awareness and sensitivity to their and the clients' cultural and other contextual factors, particularly as related to privilege and marginalized and under served communities.

Ethics and Professional Development

- Students will demonstrate competence in managing legal and ethical issues related to the practice of marriage and family therapy.
- Students will demonstrate career readiness in their interactions with peers, faculty, supervisors and clients.

Theory, Research and Practice

- Students will demonstrate understanding of human development and family science theories.
- Students will demonstrate competence in evaluating and integrating research on best practices to inform their practice.

The degree in Human Development and Family Science with a specialization in Marriage and Family Therapy consists of 54 credit hours and takes two academic years to complete. The Human Development and Family Science with emphasis in Marriage and Family Therapy satisfies the educational and clinical requirements the American Association of Marriage and Family Therapy (AAMFT) and enables students to pursue Licensure in Marital and Family Therapy (LMFT) in the state of Missouri. The program offers assistance to students who plan to be licensed in other states in order to meet licensure requirements for the state of their choice. The program operates based on the Core Competencies and Code of Ethics of American Association of Marriage and Family Therapy.

Admission Requirements

Applicants must be fully admitted by UCM Graduate Studies and have completed a bachelor's degree from an accredited institution. Applicants must possess an overall undergraduate grade point average of at least 2.50, or a 3.0 in their major. Applicants should have completed at least nine college credit hours in social or behavioral sciences. Based on transcript analysis, students may be required to complete up to 15 credit hours of background courses in HDFS prior to taking graduate level courses. Applicants must submit a resume, admission essay, and three recommendation forms (link provides detailed information) through their Student Portal. Admission is only available for fall semester. Priority consideration for fall semester admission will be given to completed applications submitted by February 1. Admission interviews will be scheduled after February 15.

Minimum Graduate Hour Total: 54 Semester Hours

Required Major Courses: 21 Semester Hours

- HDFS 5050 - Ethics and Professional Studies in Family Science (3)
- HDFS 5110 - Family Theory (3)
- HDFS 5120 - Human Development Theory (3)
- HDFS 5500 - Research Methods in Human Development and Family Science (3)
- HDFS 6410 - Diversity and Family Interventions (3)
- HDFS 6730 - Professional Assessment (3)
- HDFS 6850 - Integrative Project (3)

Required Marriage and Family Therapy Option Courses: 33 Semester Hours

- HDFS 5210 - Theoretical Foundations of Couple and Family Therapy (3)
- HDFS 5220 - Pre-Practicum in Marriage and Family Therapy I (1)
- HDFS 5230 - Pre-Practicum in Marriage and Family Therapy II (2)
- HDFS 5710 - MFT Practicum (3) (9)
- HDFS 6220 - Theories of Couple and Family Therapy (3)
- HDFS 6230 - Advanced Couple and Family Therapy (3)
- HDFS 6240 - Systemic Assessment and Diagnosis (3)
- HDFS 6520 - Systemic Treatment of Substance Use Disorders (3)
- HDFS 6530 - Couples and Sex Therapy (3)
- HDFS 6540 - Systemic Treatment of Children and Families (3)

Minimum Graduate Hour Total: 54 Semester Hours

****MFT students will take all common core courses and the additional specialization courses in MFT. Students who plan to get licensed in states that need 60 credit hours for license can meet this criteria with CFD electives or 6 thesis hours if they choose to propose and complete a thesis.

Speech-Language Pathology, MS (53-623) (50 hours)

Student Learning Outcomes

The graduate with a Master of Science degree in Speech-Language Pathology will use the knowledge and skills obtained in the program to:

1. Analyzes and applies clinical test results to make appropriate recommendations for intervention of communication and/or swallowing disorders
2. Implements intervention plans that involve clients/patients with communication and/or swallowing disorders and relevant others in the intervention process
3. Demonstrate competency in oral communication skills sufficient for entry into professional practice
4. Demonstrate competency in written communication skills sufficient for entry into professional practice
5. Adheres to guiding clinical practice documents such as the ASHA Scope of Practice for Speech-Language Pathology and the ASHA Code of Ethics to protect client welfare
6. Integrates knowledge of research processes and principles into evidence-based practice

Overview of Program - The Master of Science degree program in Speech-Language Pathology is designed for the academic and clinical instruction of persons to enter the profession of speech-language pathology. Students receive specific educational and clinical training to prepare them for the provision of services in a broad range of settings. This program is accredited in speech-language pathology by the Council on Academic Accreditation (CAA) of the American Speech- Language- Hearing Association (ASHA).

Admission Requirements

Applications are processed through the Communicative Sciences and Disorders Central Application System (CSDCAS). The Communication Disorders program admits students in the fall and summer. To be considered for admission, the applicant must have a minimum cumulative undergraduate grade point average of 3.00 (on a 4.00 scale). The program encourages students with undergraduate or graduate degrees from other disciplines to apply. In this circumstance, the student with an undergraduate degree in another discipline must have a cumulative grade point average of 3.00 (on a 4.00 scale). For applicants with a completed graduate degree, the cumulative grade point average for this degree must be 3.2 or above (on a 4.00 scale). Meeting the initial requirements to enter the program, however, does not guarantee admission to the program.

Completed applications in CSDCAS will include the following:

1. Transcripts from all previously attended colleges/universities, including dual credit course institutions
2. Three letters of recommendation
3. Personal essay following prompt provided in CSDCAS

For more information about the steps associated with the application process, refer to the Graduate Admissions menu on the Speech-Language Pathology MS web page.

Applicants who wish to be considered for financial assistance are highly encouraged to complete and submit a Free Application for Federal Student Aid (FAFSA) when applying for admission.

Application due dates/deadlines: Summer Admission - February 1 and Fall Admission - March 1

Please note that applications must be complete and have a status of 'Verified' by CSDCAS by the deadline to be considered by the Graduate Admissions Committee. The verification process can take up to 6 weeks once you have submitted your application and transcripts. Applications that are not complete, may reapply for a subsequent semester.

Notification of status: Admission to the graduate speech-language pathology program may be approved, placed on a wait list, or denied. If admission is approved, the applicant will receive electronic notification of admission. Applicants whose admission is placed on the wait list or denied will also receive electronic notification. Selection will be completed, and notification will be made by March 1 for summer admissions and April 1 for fall admissions. Waitlisted applicants will continue to be considered and invitations sent if seats are available until the cohort becomes full. At that time, notification will be sent stating such.

Post-baccalaureate Students: Post-baccalaureate student applications are only considered for Fall admission. Post-baccalaureate students who meet the graduate admission requirements and are selected for admission to the graduate program in Speech-Language Pathology are admitted provisionally. Post-baccalaureate students must successfully complete basic prerequisite courses with a minimum GPA of 3.0, with no course grade lower than a C, prior to beginning graduate work. Post- baccalaureate students who do not meet the prerequisite course criteria will not be allowed to enroll in graduate courses and will undergo administrative dismissal from the program.

Criteria for Administrative Dismissal - Administrative dismissal from the program will occur under the following circumstances:

1. Two (2) grades of "C" or below in clinical practicum.
2. The third semester the overall GPA falls below 3.00.

Only clinical clock hours for graduate clinical practicum experiences in which the student has earned a grade of C or better will apply toward certification or licensure requirements. Thus, if a student receives a grade below C in an on-campus clinic, off-site placement, or internship, the clinical clock hours accrued during that experience will not be applicable toward the 375 hours required by ASHA for the Certificate of Clinical Competence.

Transfer of Graduate Credits - Students may transfer a maximum of nine credit hours from another CAA-accredited graduate program.

Transfer credits must meet eligibility criteria as outlined in the Graduate Catalog.

Graduation Requirements - Graduation requirements for the program are based largely on requirements set forth by ASHA. ASHA requirements are based on professional practice trends and as such, are updated periodically. Although this does not happen frequently, if the ASHA requirements change, students must meet the new requirements in order to graduate. Additional graduation requirements are outlined below:

Clinical Clock Hour Requirements - Program specifications are required to provide each student clinical experience with person's exhibiting various communication disorders and differences across the lifespan. The minimum number of required hours is outlined here:

- 25 clock hours of supervised observation
- 375 clock hours of supervised clinical practicum in direct client contact
- 325 of the 375 hours must be obtained at the graduate level
- 50 clinical hours must be obtained in each of three different clinical settings

Orientation Policy and Procedures - All first-semester clinicians (not previously enrolled in CD 4802) must enroll in CD 5810 - Graduate Clinical Practicum (1). Students will pay a one-time fee for clinic shirts and name tag. Students enrolled in CD 5810 will also pay a fee for CALIPSO and ClinicNote. CALIPSO is Clinical Assessment of Learning, Inventory of Performance and Streamlined Office-Operation. CALIPSO is an online platform that the program uses to track clinical competencies and clock hours. CALIPSO has a one-time registration fee for each student. ClinicNote is the medical records software used in the on-campus clinic. After completion of CD 5810, students will enroll in CD 5811 or CD 5911. (Note: if more than one credit of clinical practicum is needed in a given semester, students will enroll in BOTH CD 5811 and CD 5911).

Summative Assessment - The summative assessment will be completed during the middle of the sixth semester prior to beginning internship. All students must pass a summative assessment prior to degree conferral.

Knowledge and Skills Acquisition - The Master of Science Degree in Speech-Language Pathology is a competency-based program. These competencies reflect the knowledge and skills required by the ASHA Certification Standards Program of Study- III, Knowledge Outcomes IV, and Skill Outcomes V. The required knowledge and skills are delineated on the knowledge and skills document. Students will be expected to demonstrate competency-related knowledge and skills throughout their graduate program through formative and summative assessments. Students not demonstrating the achievement of academic and clinical knowledge and skills need to successfully complete remediation procedures that provide documentation of knowledge and skill acquisition. Before the degree is conferred, students must demonstrate successful completion of the requirements through a review process.

Clinical Practicum Requirements - All students must fulfill the academic and clinical practicum requirements for the Certificate of Clinical Competence (CCC) in Speech-Language Pathology. Graduate clinicians must be enrolled in clinical practicum every semester to meet the practicum requirements and needs of the Welch-Schmidt Center for Communication Disorders. Any graduate student who has not completed practicum requirements by the end of the internship assignment must return to the University's Welch- Schmidt Center for Communication Disorders to complete requirements.

BLS Certification - Students will obtain certification in adult and child cardiopulmonary resuscitation prior to enrolling in clinical practicum experiences. Students must maintain re-certification throughout all clinical practicum experiences including the internship/externship experiences.

Immunizations - Student Clinicians participating in the Welch-Schmidt Center for Communication Disorders are expected to comply with all University of Central Missouri health requirements. This includes current tuberculosis (TB) test and updated immunizations as recommended by the US Center for Disease Control (CDC) and the Missouri Department of Health and Senior Services. Students must be tested annually for Tuberculosis (TB) and submit results of testing to the Director of Clinical Services prior to beginning clinic each year. Additionally, students must also submit proof of having initiated the Hepatitis B immunization series prior to beginning clinical practicum. If immunizations and TB tests are not up to date, acceptance at medical and/or educational clinical rotation sites could be denied. This could prevent required participation in a variety of clinical experiences which would ultimately prevent you from graduating.

Criminal Background Check - Satisfactory criminal background checks must be completed and validated prior to beginning clinic in the Welch-Schmidt Center for Communication Disorders and again, prior to placement in offsite experiences. If a background check is unsatisfactory, placement in clinical experiences may not be possible. A student unable to be placed in a clinical experience, onsite or offsite, will not be able to complete the program.

Grades - A graduate student who is placed on academic probation may not enroll in any clinical practicum courses while on probation. Offsite placements are arranged by the program several semesters prior to placement. Required clinical skills as defined by obtaining a minimum of the expected skill level for your cohort will be demonstrated for Certification Standard - Skills Outcomes IV prior to beginning the offsite experience. Students will need to provide their own transportation and housing during the internship/externship experiences.

Clinician Meetings - Clinicians are required to attend clinician meetings which cover a variety of topics ranging from paperwork and procedures to assessment and intervention tools available in the Center. These meetings are scheduled as needed throughout the semester.

Certification and Licensure - Upon completion of the Master of Science degree and the Clinical Fellowship, graduates are eligible for the Certificate of Clinical Competence from the ASHA and licensure as a Speech- Language Pathologist by the Missouri Department of Economic Development, Division of Professional Registration. Upon obtaining their unencumbered license as a Speech-Language Pathologist, graduates are also eligible for a Student Services Certificate through application to the Missouri Department of Elementary and Secondary Education. This Student Services Certificate provides the graduate with the opportunity for employment as a Speech-Language Pathologist in Missouri's public schools.

Credit for Life Experience - Credit **will not** be given for life or previous work experience for courses required in the speech-language pathology major.

Accreditation - The Communication Disorders Program is nationally accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA). The contact number for the CAA is (800) 498-2071.

Required Graduate Courses: 42 Semester Hours

- CD 5101 - Professional Issues in Communication Disorders (2)
- CD 5402 - Advanced Issues in Child Language Disorders (3)
- CD 5403 - Autism: Communication Across the Lifespan Course (2)
- CD 5501 - Articulatory and Phonological Disorders (3)
- CD 5502 - Fluency Disorders (2)
- CD 5503 - Voice Disorders (3)
- CD 5504 - Adult Neurogenic Language Disorders (2)
- CD 5506 - Motor Speech Disorders (3)
- CD 5508 - Adult Swallowing Disorders (2)
- CD 5509 - Pediatric Feeding and Swallowing Disorders (2)
- CD 5511 - Assistive Technology Across the Lifespan (2)
- CD 5512 - Clinical Management (2)
- CD 5515 - Rehabilitation of Cognitive Linguistic Communication Disorders (2)
- CD 5801 - Internship in Communication Disorders (4)
- CD 5802 - Externship in Communication Disorders: Educational Setting (3)
- CD 5820 - Offsite Clinical Practicum (2)
- CD 5902 - Research Design in Communication Disorders (3)

Select from the following: 8 Semester Hours

- CD 5810 - Graduate Clinical Practicum (1) (0-1) 0 credit if prior UCM CD undergraduate degree earned
- CD 5811 - Advanced Graduate Clinical Practicum (1) (7-8)
- CD 5911 - Advanced Graduate Clinical Practicum II (1) (7-8)

Note:

CD 6901 Thesis can be taken with the approval of program coordinator. 1-5 hours.

Minimum Graduate Hour Total: 50 Semester Hours

The following is an example for the course sequence for the Master of Science in Speech-Language Pathology for a student admitted to begin study in the fall. The MS program takes 6 semesters to complete, if your undergraduate degree is in speech-language pathology. As indicated previously, students are admitted during fall or summer semesters. A student will follow the sequence associated with the semester they begin graduate studies. Students who follow this course sequence will have priority for all externship and internship placements.

1st Fall Semester

- CD 5403 - Autism: Communication Across the Lifespan Course (2)
- CD 5502 - Fluency Disorders (2)
- CD 5504 - Adult Neurogenic Language Disorders (2)
- CD 5512 - Clinical Management (2)

- CD 5810 - Graduate Clinical Practicum (1) **and** CD 5811 - Advanced Graduate Clinical Practicum (1)
  OR
- CD 5811 - Advanced Graduate Clinical Practicum (1) **and** CD 5911 - Advanced Graduate Clinical Practicum II (1)

Total: 9 Semester Hours

1st Spring Semester

- CD 5501 - Articulatory and Phonological Disorders (3)
- CD 5508 - Adult Swallowing Disorders (2)
- CD 5811 - Advanced Graduate Clinical Practicum (1)
- CD 5820 - Offsite Clinical Practicum (2)
- CD 5902 - Research Design in Communication Disorders (3)

Total: 11 Semester Hours

1st Summer Semester

- CD 5402 - Advanced Issues in Child Language Disorders (3)
- CD 5515 - Rehabilitation of Cognitive Linguistic Communication Disorders (2)
- CD 5811 - Advanced Graduate Clinical Practicum (1)

Total: 6 Semester Hours

2nd Fall Semester

- CD 5101 - Professional Issues in Communication Disorders (2)
- CD 5506 - Motor Speech Disorders (3)
- CD 5509 - Pediatric Feeding and Swallowing Disorders (2)
- CD 5811 - Advanced Graduate Clinical Practicum (1)
- CD 5911 - Advanced Graduate Clinical Practicum II (1)

Total: 9 Semester Hours

2nd Spring Semester

- CD 5503 - Voice Disorders (3)
- CD 5511 - Assistive Technology Across the Lifespan (2)
- CD 5802 - Externship in Communication Disorders: Educational Setting (3)
- CD 5811 - Advanced Graduate Clinical Practicum (1)
- CD 5911 - Advanced Graduate Clinical Practicum II (1)

Total: 10 Semester Hours

2nd Summer Semester

- CD 5801 - Internship in Communication Disorders (4) *

Total: 4 Semester Hours

Note:

*Students who have not taken Aural Rehab, will need to add this course.

Department of Management

Department of Marketing, Public Relations, and Sport Management

Customer Relationship Management Graduate Certificate (50-5001) (9 hours)

The Customer Relationship Management certificate is focused on understanding consumers, their behaviors, and how firms can foster and maintain lasting relationships with customers. Students will become familiar with different economic theories and how they help explain consumer behavior. Additionally, by taking a marketing-oriented approach, students will learn different customer valuation methodologies and how to evaluate the customer loyalty phenomenon.

Required Graduate Courses: 9 Semester Hours

- MKT 5405 - Marketing Theory and Behavior (3)
- MKT 5420 - Customer Relationship Management (3)
- MKT 5475 - Services Marketing (3)

Social Media Marketing Graduate Certificate (50-5002) (9 hours)

This Social Media Marketing certificate is focused on the role of social media as an element of a firm's overall marketing strategy. This certificate is ideal for individuals who are interested in developing social media content for firms and understanding how to extract insights from data to help make informed and insightful decisions. At the completion of this certificate, students will possess multiple marketing certifications and understand how to allocate marketing resources to maximize customer value.

Required Graduate Courses: 9 Semester Hours

- MKT 5420 - Customer Relationship Management (3)
- MKT 5480 - Inbound Marketing Strategy (3)
- MKT 5485 - Social Media Analytics (3)

Sport Management, MS (53-677) (30-33 hours) [Also available as an accelerated program]

Student Learning Outcomes

The graduate with a Master of Science degree in Sport Management will be able to:

- Demonstrate advanced knowledge of principles and theories in the sport management discipline.
- Be able to utilize critical thinking skills to solve sport-related problems.
- Demonstrate effective management and leadership principles related to ethical dilemmas in sport organizations.
- Demonstrate effective communication skills in diverse sport contexts.

- Be able to conduct sport management research using suitable analytical techniques.

The Sport Management Master's Program provides relevant and applied learning experiences to prepare and equip Sport Management professionals for successful careers. Elective, internship, and research course offerings augment a core of sport-related classes in the areas of finance, management/leadership, marketing, public relations, and law. The curriculum is instrumental in the preparation of students for careers in a broad array of organizational settings. A diverse faculty possess expertise in a broad spectrum of sport management specialties. The program's vision is to become a program of national distinction in Sport Management through the quality of our learning experiences, the success of our students, and the impact of our faculty as national leaders in the discipline. The motivation within the program is the passion and inspiration of seeing students experience success and realize a sense of ownership in their personal and professional development.

Admission Requirements

There are no specific undergraduate major requirements for acceptance into the Sport Management program. However, students without a background in Sport Management, Business Management, or relevant coursework are strongly encouraged to take SM 5750 - Foundations in Sport Management (3) early in their program.

A minimum undergraduate grade point average of 2.75/4.00 or a grade point average of 3.00/4.00 on 9 semester hours of earned graduate credit is required. For graduate applicants who do not meet the 2.75 undergraduate GPA requirement, additional items will be required: Statement of Purpose - statement articulating why the prospective student wants to pursue an advanced degree in our program. Reference - Names of 2 references will be requested in order to contact these individuals regarding the potential graduate student's ability to successfully complete the graduate degree. NOTE: GRE score is recommended for students not meeting GPA requirements.

For International students seeking admission into the program additional requirements apply: For unconditional admission International students must submit English proficiency scores with a minimum of 6.5 IELTS, 565 paper based TOEFL, or 87 internet based TOEFL. Applicants not meeting the minimum required English proficiency scores may apply for conditional admission if their English proficiency scores are 6.0 IELTS, 550 paper based TOEFL, or 79 internet based TOEFL. All conditionally admitted students must enroll into the appropriate Intensive English Program to improve English proficiency scores to become unconditionally admitted before enrolling in courses for the MS in Sport Management program.

Application Due Dates: To be considered for admissions into the M.S. in Sport Management degree program and to ensure available capacity, early submission of application materials is recommended. Priority consideration will be give to students who apply at the beginning of the semester prior to the anticipated admissions term. Applicants will be notified of their admission status via email. Admission decision will be based upon the merit of the application and the available space in the program.

A minimum of 33 credit hours is required for students who choose the internship area. A minimum of 30 credit hours is required for students who choose the thesis area.

Required Core Courses: 15 Semester Hours

- SM 5740 - Sport Law and Risk Management (3)
- SM 5760 - Advanced Sport Marketing (3)
- SM 5770 - Sport Finance (3)
- SM 5780 - Organizational Leadership in Athletics and Sport (3)
- SM 5820 - Sport Public Relations (3)

Select Internship or Thesis Area (15-18 Semester Hours)

Internship Area: 18 Semester Hours

Internship Area Research Requirement: 3 Semester Hours

- SM 5900 - Introduction to Research in Sport Management (3)
  OR
- SM 5210 - Statistics in Sports Management (3)

Internship: 2-4 Semester Hours

- SM 6980 - Internship (2-6) (2-4)

Internship Area Electives: 11-13 Semester Hours

Internship area students can take elective courses from following (11-13 hours).

- SM 5720 - Advanced Sport Facility Management (3)
- SM 5750 - Foundations in Sport Management (3)
- SM 5800 - Sport Sponsorship and Sales (3)
- SM 5810 - Advanced Sport Event Management (3)
- SM 5860 - Advanced Sport and Media (3)
- SM 5880 - Sport Consumer Behavior (3)
- SM 6190 - Trends & Issues in Sport Management (3)
- SM 6900 - Readings in Sport Management (1-5)

Thesis Area: 15 Semester Hours

Thesis Area Research Requirement: 6 Semester Hours

- SM 5210 - Statistics in Sports Management (3)
- SM 5900 - Introduction to Research in Sport Management (3)

Thesis: 6 Semester Hours

- SM 6990 - Thesis (6)

Thesis Area Electives: 3 Semester Hours

- SM 5720 - Advanced Sport Facility Management (3)
- SM 5750 - Foundations in Sport Management (3)
- SM 5800 - Sport Sponsorship and Sales (3)
- SM 5810 - Advanced Sport Event Management (3)
- SM 5860 - Advanced Sport and Media (3)
- SM 5880 - Sport Consumer Behavior (3)
- SM 6190 - Trends & Issues in Sport Management (3)
- SM 6900 - Readings in Sport Management (1-5) (3)

Minimum Graduate Hour Total: 30-33 Semester Hours

When a student takes the internship option, a total of 33 hours are required. When a student takes the thesis option, a total of 30 hours are required.

Accelerated Program Notes:

The Accelerated model for this program is designed for the BS Sport Management.

Students should apply for admittance to the Accelerated Program at the beginning of the junior year, after earning at least 60 hours of undergraduate college credit that includes 6 credit hours of Sport Management major courses, SM 1100 and SM 2300. The application must be made prior to the student earning senior status in the BS in Sport Management, through Sport Management Graduate Coordinator.

Students must meet specific academic criteria for acceptance into the Accelerated program. The minimum criteria for acceptance are:

- Cumulative GPA of 2.75 (4.00 scale) or higher for the first 60 hours of undergraduate college credit.
- Earn a B or better in both SM 1100 and SM 2300 courses.

In order to remain in good standing, students must:

- Maintain an overall cumulative GPA of 2.75/(4.00 scale), and
- Earn a C or better in all Sport Management coursework taken in the senior year.

In any semester, if either condition is not met, students will become ineligible to continue in the Accelerated program.

Students can enroll in graduate courses only after the junior year (90 earned hours).

Courses that an accelerated student may be eligible (up to 12 semester hours) to include as the overlap between the undergraduate and graduate programs:

SM 5740 - Sport Law and Risk Management (3) (SM 4740)

SM 5770 - Sport Finance (3) (SM 4770)

SM 5820 - Sport Public Relations (3) (SM 4820)

SM 5880 - Sport Consumer Behavior (3) (SM 4880)

Department of Military Science and Leadership

Missouri Safety Center

College of Health, Science, and Technology

Administration 105 • 660-543-4241
ucmo.edu/chhs

The College of Health, Science, and Technology is comprised of:

- Department of Computer Science and Cybersecurity
- Department of Occupational Risk and Safety Sciences
- Department of Biological and Clinical Sciences
- School of Nursing
- Department of Nutrition, Kinesiology, and Health
- School of Industrial Sciences and Technology

School of Industrial Sciences and Technology

School of Industrial Sciences and Technology
Grinstead 9 • 660-543-4439
ucmo.edu/technology

Industrial Management, MS (53-141) (33 hours)

Student Learning Outcomes

The graduate with a Master of Science degree in Industrial Management will use the knowledge and skills obtained in the program to:

- Apply management skills and concepts to specific situations.
- Plan and implement a project.
- Analyze and develop a human relations strategy.
- Demonstrate the ability to communicate effectively.
- Explain and apply the basic concepts of an Industrial Economy.
- Introduce and adapt technical expertise to a given process or product.
- Perform, interpret and explain research.
- Understand, communicate, and assess Technology

Admission Requirements

This program is designed for students who are preparing for supervisory or management positions in industry. To be accepted into this program, a student shall have a minimum overall grade point average of 2.60 in the undergraduate major. A student not meeting this requirement may petition the school for admittance on a conditional basis.

Students selecting the thesis must enroll in 3 hours for two consecutive semesters or 6 hours for a single semester. A "Career Goal Statement" is required of all applicants to this degree program. English writing scores require a minimum TOEFL score of 550 (PBT) or score of 79 (IBT), or IELTS score of 6.0 before beginning graduate course work.

Required Graduate Courses: 21-24 Semester Hours

- INDM 5210 - Industrial Management (3)
- INDM 5160 - Organizational Dynamics (3)
- INDM 5212 - Production and Operations Management (3)
- INDM 5240 - Engineering Economy (3)
- TECH 5010 - Applied Research for Technology (3)

- ENGT 5580 - Quality Systems Engineering (3)
  OR
- INDM 5130 - Lean and Quality Management (3)

- INDM 5230 - Seminar in Industrial Management (3) Culminating Experience (last semester of student's program)
  OR
- TECH 5290 - Thesis (3) (6)

Cognate Requirements: 9-12 Semester Hours

(choose any 3 with Thesis or 4 with Seminar)

- INDM 5120 - Human Factors Engineering (3)
- INDM 5140 - Facilities Engineering (3)
- INDM 5150 - Project Management (3)
- INDM 5180 - Industrial Statistics (3)
- INDM 5015 - Legal Aspects of Industry (3)
- INDM 5222 - Principles and Practices of Lean Systems (3)
- INDM 5232 - Seminar in Lean-Six Sigma Implementation (3)
- INDM 6580 - Advanced Strategic Quality and Standards (3)
- TECH 5020 - International Technology Management (3)
- TECH 5110 - Current Issues in Industry (3)
- TECH 5260 - Systems Analysis and Management Information Systems (3)
- Approved graduate electives (3)

Minimum Graduate Hour Total: 33 Semester Hours

Lean Six-Sigma Graduate Certificate (50-993) (15 hours)

The Lean Six-Sigma program consists of fifteen semester hours intended for industrial and service managers, supervisors and others who desire to bridge their companies' productivity to "Lean-Six Sigma" methods.

Program Description - This online certificate program is designed for industrial professionals seeking insight to techniques of Lean Six Sigma systems while preparing for the Lean Certification by the Society of Manufacturing Engineers (SME), Six Sigma Green Belt Certification and/or the Manager of Quality/Organizational Excellence Certification from the American Society for Quality (ASQ). The five required courses will integrate with the Industrial Management and Technology Masters Degree programs as an area of specialization. The program will be delivered via the Internet using web-based tools for effective learning.

In order to be awarded the certificate, students will complete all five required courses with a "B" or better average. These courses must be completed within four calendar years, beginning with the date the student first registers as a graduate level certificate student.

Student Learning Outcomes - Students will gain the most recent skills and knowledge in Lean systems, Six Sigma, quality tools, and quality management principles while preparing for certification examinations.

Specific Objectives:

- Apply lean concepts in various industrial situations to eliminate waste and maximize quality.
- Use seven statistical tools and quality techniques to problem solve a given industrial scenario.
- Develop a continuous improvement plan using quality standards criteria established by the International Standards Organization series and Malcolm Baldridge Awards program.
- Prepare for Lean certification by the Society of Manufacturing Engineers (SME) and/or the Manager of Quality/Organizational Excellence Certification from the American Society for Quality (ASQ).

This online graduate certificate program utilizes the same format to present all five courses included in the program of study. Course deliverables and materials will have a complete set of course components, including learning outcomes, instructional modules, handouts, assignments, and assessment. Interactive discussions with peers and course facilitators in a virtual class meeting, video conference, discussion board, and telephone conferences are encouraged.

To be admitted applicants must have completed a baccalaureate degree from an accredited college or university with a GPA of 2.50 overall. Contact your adviser and Instructor for consent to enroll in this sequence of courses. Applicants must also demonstrate proficiency in English communication and an ability to work in a technology

management-driven environment. Students must maintain a grade point average of 3.00. The certificate can be completed in one calendar year.

Required Graduate Courses: 15 Semester Hours

- ENGT 5580 - Quality Systems Engineering (3)
  OR
- INDM 5130 - Lean and Quality Management (3)

- INDM 5212 - Production and Operations Management (3)
- INDM 5222 - Principles and Practices of Lean Systems (3)
- INDM 5232 - Seminar in Lean-Six Sigma Implementation (3)
- INDM 6580 - Advanced Strategic Quality and Standards (3)

Minimum Graduate Hour Total: 15 Semester Hours

Network Security Graduate Certificate (50-994) (15 hours)

The Network Security program includes fifteen semester hours designed for networking professionals seeking to enhance their skill set in designing and implementing Cisco Systems hardware-based network security measures. Students will gain the most recent skills and knowledge in securing corporate network infrastructure.

Program Description - This certificate program is designed for networking professionals seeking to enhance their skill set in designing and implementing Cisco Systems hardware-based network security measures. The five courses are currently integrated with the Technology Masters Degree program as an area of specialization. The courses would also serve as electives for other CHST graduate programs.

Student Learning Objectives - Students will gain the most recent skills and knowledge in securing the corporate network infrastructure. Specific objectives include:

- Security policy design and management.
- Security technologies, products, and solutions.
- Firewall and secure router design, installation, configuration, and maintenance.
- Intrusion Prevention (IPS) implementation using routers and firewalls.
- Virtual Private Network (VPN) implementation using routers and firewalls.

To be admitted applicants must have completed a baccalaureate degree from an accredited college or university with a GPA of 2.50 overall. Contact your adviser and Instructor for consent to enroll in this sequence of courses. Applicants must also demonstrate proficiency in English communication and an ability to work in a technology management-driven environment. Students must maintain a grade point average of 3.00.

Required Graduate Courses: 15 Semester Hours

- INDM 5160 - Organizational Dynamics (3)
- NET 5100 - Network Device Configuration (3: 2 lecture, 1 lab)
- NET 5500 - Managerial Design for Secure Networks (3)
- NET 5501 - Network Security Management I (3)
- NET 5502 - Network Security Management II (3)

Minimum Graduate Hour Total: 15 Semester Hours

Technology Management, PhD (24-30 hours)

UCM is participating as a charter member of a five-university consortium offering this degree, which is conferred by Indiana State University. This degree takes advantage of distance education technology with courses available through Internet, telecommunication, and other media. Selected courses are also available on the respective campuses. The doctoral program is designed to provide students with planned opportunities to increase their depth and breadth of knowledge in technological studies. Students must complete a minimum of 57-60 semester hours of graduate study above the masters degree, with a majority of the course work at the 6000 level or higher. The program of study includes 24-30 semester hours in an area of technical specialization. Admission occurs through Indiana State University. The Graduate Record Exam (GRE) is required. For more information, contact the School of Technology, call 660-543-4439 or visit www.indstate.edu/technology/consortphd.

Technology, MS (53-589) (33 hours)

Student Learning Outcomes

The graduate with a Master of Science degree in Technology will gain knowledge and skills obtained in the program to:

- Manage complex project planning, implementation, and resources.
- Demonstrate an ability to communicate, analyze workflow in a global technological society.
- Identify, develop, and implement quality strategies and appropriate software applications.
- Develop, evaluate, and integrate technological systems to meet strategic goals.
- Develop advanced professional and personal competencies in technology, demonstrating concepts of a supply and demand society.

Admission Requirements

The Master of Science degree in Technology is focused on preparing students for professional positions in technology related organizations, enterprises, and activities. Graduates are prepared in a range of rapidly evolving technological disciplines, as entrepreneurs and members of an organizational enterprise. Applicants must hold an appropriate baccalaureate degree from an accredited institution. Students are able to select coursework to meet their individual career goals. The program of study will include a blend of advanced technologies, management, communication, safety, research, quality assurance and relevant computer applications depending on a specific discipline. Prior to admission to this program, a student must submit to the graduate office all official transcripts indicating a minimum grade point average of 2.50 in the undergraduate major, a "Statement of Purpose", a Resume` including three contact references, and an application form. Students selecting the thesis option must enroll in 3 hours for two consecutive semesters to total a minimum of 6 semester hours. A student must also pass a comprehensive examination before completion of the program. English writing scores require a minimum TOEFL score of 550 (PBT) or score of 79 (IBT), or IELTS score of 6.0 before beginning graduate course work.

Required Graduate Courses: 18 Semester Hours

- INDM 5015 - Legal Aspects of Industry (3)
- INDM 5160 - Organizational Dynamics (3)
- TECH 5010 - Applied Research for Technology (3)
- TECH 5020 - International Technology Management (3)
- TECH 5110 - Current Issues in Industry (3)
- TECH 5260 - Systems Analysis and Management Information Systems (3)

Research: 3-6 Semester Hours

- INDM 5230 - Seminar in Industrial Management (3) (3)
  OR
- TECH 5290 - Thesis (3) (6)

Approved Graduate Electives in Technology: 9-12 Semester Hours

Agriculture, Computer Science, Construction Management, Design and Drafting Technology, Engineering Technology, Fashion and Apparel Merchandising, General Technology, Lean Six Sigma, Manufacturing Management, Network Security, or other approved areas. Graduate electives are to be taken at UCM and may include an area of study in technology.

Minimum Graduate Hour Total: 33 Semester Hours

School of Nursing

https://www.ucmo.edu/nursing/

School of Nursing
University Health Center 106 • 660-543-4775
ucmo.edu/nursing

Nurse Educator Graduate Certificate (50-618) (15 hours)

In addition to a Master of Science in Rural Family Nursing, we offer a post-master certificate in Nursing Education

Student Learning Objectives - Specific objectives include:

• Use multiple modes (Effective, Oral, Written, Therapeutic, Media, and Technological) in adapting language and communication strategies appropriate to the advanced practice role and diverse settings.
• Use theory and principles, guided by logic and sound judgment, to allow for the provision of advanced practice nursing care.
• Use reasoning and knowledge to assess, plan, intervene and evaluate while providing holistic care in diverse environments utilizing pertinent resources.
• Actively engage in interaction based on mutual respect with collaboration toward goal achievement.
• Internalize and demonstrate ethically grounded behaviors reflective of the ANA's Nursing: Scope and Standards of Practice (2015), ANA's Nursing's Social Policy Statement (2010), ANA's Code of Ethics for Nurses (2015), NLN Core Competencies for Nurse Educators (2005).
• Locate, organize, store, retrieve, evaluate, synthesize, and annotate information from print, electronic, and other sources in preparation for providing advanced nursing care.

To be admitted into the program, applicants must have completed a Bachelors of Science in Nursing and a Master's Degree in Nursing.

Required Graduate Courses: 15 Semester Hours

- NUR 5035 - Measurement in Nursing (2)
- NUR 5038 - Nurse Educator: Concepts of Physiology/Pathophysiology, Pharmacology and Advanced Assessment (3)
- NUR 5039 - Nurse Educator: Direct Patient Care Clinical Practica (1)
- NUR 5040 - Teaching Theory in Nursing (3)
- NUR 5041 - Teaching Clinical Practice in Nursing (3)
- NUR 5050 - Designing Nursing Curricula (3)

Minimum Graduate Hour Total: 15 Semester Hours

Nursing, MS (53-982) (33-44 hours)

Accredited by the Commission on Collegiate Nursing Education.

Student Learning Outcomes

The graduate with a Master of Science degree in Nursing will use the knowledge and skills obtained in the program to:

- Use multiple modes (Effective, Oral, Written, Therapeutic, Media, and Technological) in adapting language and communication strategies appropriate to the advanced practice role and diverse settings.
- Use theory and principles, guided by logic and sound judgment, to allow for the provision of advanced practice nursing care.
- Use reasoning and knowledge to assess, plan, intervene and evaluate while providing holistic care in diverse environments utilizing pertinent resources.
- Actively engage in interaction based on mutual respect with collaboration toward goal achievement.
- Internalize and demonstrate ethically grounded behaviors reflective of the ANA's Nursing: Scope and Standards of Practice (2015), ANA's Nursing's Social Policy Statement (2010), ANA's Code of Ethics for Nurses (2015), NLN Core Competencies for Nurse Educators (2005).
- Locate, organize, store, retrieve, evaluate, synthesize, and annotate information from print, electronic, and other sources in preparation for providing advanced nursing care.

This program is designed to emphasize advanced practice nursing knowledge, skills, and attitudes, as well as the application of the research process to clinical phenomena within the context of family health. The Nurse Educator emphasis area provides graduates with the needed course work to sit for the certification exam The advanced practice emphasis area of Family Nurse Practitioner provides graduates with the needed course work and practica necessary to sit for the certification exam.

Admission Requirements

- Bachelor's degree with an upper division nursing major from a program accredited by the National League for Nursing or the Commission on Collegiate Nursing Education.
- Admission to UCM's graduate studies including specific requirements for the School of Nursing.
- Completion of the School of Nursing's application for admission including undergraduate transcripts.
- A minimum of one year of post baccalaureate nursing experience for students choosing the Family Nurse Practitioner emphasis area. This year may be completed while taking core theory courses for the program.
- Undergraduate minimum cumulative grade point average of 3.00 on a 4.00 scale.
- Computer or computer access with hardware compatible with UCM's program software. Basic computer skills are required prior to matriculation.

Exception to any of the admission requirements will be considered on an individual basis.

Consideration of Applications - Completed applications to the nurse educator area will be considered by the School of Nursing on a space available basis throughout the year. Students applying for the nurse educator area may take graduate courses in nursing prior to official admission to the graduate nursing program. Completed applications to the family nurse practitioner area will be considered by the School of Nursing on or around September 15 for the spring semester and on or around February 15 for the summer or fall semesters. Admission to the family nurse practitioner area is competitive based on one's undergraduate nursing grade point average, as well as years of experience as an RN. Preference will be given to UCM School of Nursing Alumni. Students applying for the family nurse practitioner area may not take graduate classes in nursing prior to official admission to the graduate nursing program.

Notification of Status - Admission to the School of Nursing may be approved, deferred, or rejected. If admission is approved, the applicant will receive an email and additional acceptance forms that must be submitted to complete the

admission to the graduate nursing program. Applicants whose admission is deferred or rejected will be notified by email.

Full-Time and Part-Time Degree Status - Opportunities for part-time and full-time study are available. Part-time study is encouraged.

Additional Admission Requirements for International Applicants
- International students provide a unique cultural and personal addition to UCM. They are encouraged to apply early in the academic year prior to the year they wish to attend Central Missouri to ensure time to complete the following additional requirements:

1. Evidence of adequate financial support for the duration of the program.
2. A minimum score of 600 paper-based or 100 internet based on the Test of English as a Foreign Language (TOEFL) if English is not the primary language.
3. A passing score on the Commission on Graduates of Foreign Nursing Schools (CGFNS) examination.

The CGFNS examination is a prerequisite for taking the Registered Nurse Licensing examination in the state of Missouri and for obtaining a non-immigrant occupational preference visa (H-1A) from the United States Immigration and Naturalization Service. CGFNS offers a two-part certification program that includes a credentials review followed by a test of nursing and English language skills. The CGFNS examination is given in March, August, and Nov. Application materials may be requested from CGFNS, Attn: CP, 3600 Market Street, Philadelphia, Pennsylvania, 19014-2651 (Phone 215/349-8767). The registration deadline for these exams is approximately four months prior to their administration. Early application is therefore essential.

Health and Immunization Record - As a professional nurse, the graduate student is expected to maintain immunizations according to school policy. The University of Central Missouri, School of Nursing Student Health Immunization Form, furnished by the School of Nursing, should be completed.

Criminal Background Check - Criminal background checks are required of all students who have been provisionally accepted into the School of Nursing. Students who have completed an acceptable background check but have not started the program and students currently enrolled in the Nursing Program have an ongoing duty to report any criminal convictions, pending charges, or other negative information that arise during such enrollment.

Drug Screen - Students may be required to obtain and submit a drug screen.

Registered Nurse Licensure - Students who are provisionally accepted into the School of Nursing are expected to hold and maintain an active, unencumbered registered nurse license. Students who have not started the program and students currently enrolled in the Nursing Program have an ongoing duty to report an encumbered license.

CPR Certification - Students must be trained and certified in adult and child cardiopulmonary resuscitation (CPR) prior to enrollment in graduate courses requiring clinical experience. Students must maintain re-certification throughout the program.

Non-Degree Students - Individuals may take graduate level courses as a non-degree student, provided they have a Bachelor of Science in Nursing degree from a National League for Nursing (NLN) or Commission on Collegiate Nursing Education (CCNE) accredited school. Non-degree students are admitted to individual classes by permission of the instructor on a space available basis.

To apply, applicants must send an official copy of all undergraduate nursing transcripts to the School of Nursing, along with a completed application for admission as a non-degree student.

Students who also register for clinical courses must submit evidence of licensure as a nurse in the state of Missouri.

All non-degree application requirements must be received by the deadline for the semester during which the course will be offered (cf. "Consideration of Application" in this book). Requests for non-degree status will be considered within two weeks after the appropriate deadline.

If permission is granted by faculty, the student will be notified by the Chair of the School of Nursing. (Non-degree students requesting a second course may make the request to the School of Nursing). Up to seven credits earned as a non-degree student may be accepted for credit toward the M.S. degree if the applicant is later admitted to the master's program.

Transfer of Graduate Credits - Transfer credit will be given only for academic work completed within eight years before matriculation at Central. Such units are transferable only if the student has earned a minimum of 6 units of graduate credit at University of Central Missouri's School of Nursing. A student wishing to transfer course work should make a written request and provide a syllabus or some other description of the course to his/her advisor. (See Central's Graduate Catalog or other policies related to the transfer of graduate credit).

Transfer to Another Graduate Nursing Emphasis Area - A change of graduate nursing emphasis area may be made, contingent upon approval of the faculty involved. Subsequent to the submission of an application for a change of major from Nurse Educator to Family Nurse Practitioner emphasis area students may not enroll in graduate core classes in nursing prior to official admission to the Family Nurse Practitioner emphasis area. Should a change be made, a student must meet all requirements of the new emphasis area.

Advisement - The Graduate Program Coordinator will assign students to graduate faculty for advisement. The graduate faculty adviser assists the student in planning and implementing his/her course of study throughout the master's program.

Grades - All courses counting toward the master's degree must be taken for the following grades: A (4.0); B (3.0); C (2.0). Master's degree students with a GPA of less than 3.00 after completing 20 credits will be asked to withdraw from the program. Earning a D or F in any graduate level nursing degree course will result in administrative withdrawal from the program at the end of the semester in which the grade is received. In case of illness or other nonacademic problems, it is the student's responsibility to negotiate with the professor for a U (uncompleted grade). A student who earns a grade of C in a graduate nursing course must complete the course a second time and earn a grade of A or B to continue progression in the program. If the student earns a second grade of C in any course they will be administratively withdrawn from the program and ineligible for a MSN degree from UCM.

Withdrawal from a Course - Students may make changes in their schedules during the drop/add periods of the fall, spring and summer semesters. A fee is charged by the university if changes are made after that period. If a student withdraws from a course after the drop/add period, the progress of the student at the time of withdrawal from the course will be indicated on the record as Withdrew.

Interruption of Program and Withdrawal from the Graduate Program - the School of Nursing reserves the right, and matriculation by the student is a concession of this right, to request the withdrawal of any student whose performance at any time does not comply with the Missouri State Board of Nursing Practice Act (1993) and the American Nurses' Association Code for Nurses (2015).

If a student for any reason wishes to withdraw from the program, notification should be made in writing to the coordinator before the expected date of withdrawal. Students who have withdrawn from the program must apply for readmission according to regular admission policies. Students who find it necessary to interrupt their programs of study should request in writing a leave of absence addressed to the Graduate Program Coordinator of the School of Nursing. A maximum of one calendar year's leave may be granted; this will be counted toward the total time allowed to complete the program.

Commencement - Graduation exercises are held twice a year, in May and December, when degrees are conferred and diplomas issued to students who have completed all requirements. Diplomas cannot be issued until they are approved by the Academic Council and Board of Governors.

Required Graduate Courses: 18 Semester Hours

- NUR 5000 - Methods of Research in Nursing (3)
- NUR 5015 - Theories of Nursing (3)

- NUR 5016 - Family/Population Health (3)
- NUR 5017 - Organizational Leadership in Complex Health Systems (3)
- NUR 5018 - Heath Care Policy and Advocacy (3)
- PSY 5050 - Statistics for the Behavioral Sciences (3)

Area: 15-26 Semester Hours

Students must complete all requirements in one of the following areas

Nurse Educator Area (9822)

Required Graduate Courses: 15 Semester Hours

- NUR 5035 - Measurement in Nursing (2)
- NUR 5038 - Nurse Educator: Concepts of Physiology/Pathophysiology, Pharmacology and Advanced Assessment (3)
- NUR 5039 - Nurse Educator: Direct Patient Care Clinical Practica (1)
- NUR 5040 - Teaching Theory in Nursing (3)
- NUR 5041 - Teaching Clinical Practice in Nursing (3)
- NUR 5050 - Designing Nursing Curricula (3)

Family Nurse Practitioner Area (9821)

Required Graduate Courses: 26 Semester Hours

- NUR 5020 - Pharmacology for Advanced Practice Nursing (3)
- NUR 5300 - Advanced Pathophysiology Across the Lifespan (3)
- NUR 5410 - Advanced Health Appraisal (4)
- NUR 5420 - Family Nurse Practitioner: Primary Care I (3)
- NUR 5421 - Family Nurse Practitioner: Primary Care I Practicum (2)
- NUR 5430 - Family Nurse Practitioner: Primary Care II, Women's Health (2)
- NUR 5440 - Family Nurse Practitioner: Primary Care II, Pediatrics (2)
- NUR 5441 - Family Nurse Practitioner: Primary Care II Practicum (2)
- NUR 5450 - Family Nurse Practitioner: Primary Care III (2)
- NUR 5451 - Family Nurse Practitioner: Primary Care III Practicum (3)

Minimum Graduate Hour Total: 33-44 Semester Hours

Post Master's Family Nurse Practitioner (FNP) Certificate (50-6018) (26 hours)

A program that prepares master's level registered nurses to provide independent general care for family groups and individuals in the context of family living. Includes instruction in family theory and intervention, role synthesis, family primary care, nursing practice and health care policy, holistic practice, pediatric practice, gerontological practice, health assessment, clinical pharmacotherapeutics, clinical techniques, and pathotypsychology.

Required Graduate Courses: 26 Semester Hours

- NUR 5020 - Pharmacology for Advanced Practice Nursing (3)
- NUR 5300 - Advanced Pathophysiology Across the Lifespan (3)

- NUR 5410 - Advanced Health Appraisal (4)
- NUR 5420 - Family Nurse Practitioner: Primary Care I (3)
- NUR 5421 - Family Nurse Practitioner: Primary Care I Practicum (2)
- NUR 5430 - Family Nurse Practitioner: Primary Care II, Women's Health (2)
- NUR 5440 - Family Nurse Practitioner: Primary Care II, Pediatrics (2)
- NUR 5441 - Family Nurse Practitioner: Primary Care II Practicum (2)
- NUR 5450 - Family Nurse Practitioner: Primary Care III (2)
- NUR 5451 - Family Nurse Practitioner: Primary Care III Practicum (3)

Minimum Graduate Hour Total: 26 Semester Hours

Department of Agriculture

Agriculture Graduate Certificate (50-692) (18 hours)

Student Learning Outcomes - A student with a Graduate Certificate in Agriculture will use the knowledge and skills obtained in the program to:

- Explain how knowledge of scientific principles, economic theories and management concepts are applied in agricultural practices to produce food and fiber for society.
- Describe how local, state, national and international policies and perspectives impact agriculture and food production throughout the world.
- Demonstrate effective written and oral communication skills in agricultural science classes.
- Demonstrate the ability to analyze and solve agriculture problems individually and in groups.

The Graduate Certificate in Agriculture is an eighteen graduate credit hour program of study with a 12 credit hour core of classes and a 6 credit hour animal science track and a 6 credit hour plant science track.

Admission Requirements - To be accepted into the program, a student must have an undergraduate degree in agriculture or an undergraduate degree in a related major.

Required Graduate Courses: 12 Semester Hours

- AGRI 5000 - Advanced Readings in Agriculture (1-3) (3)
- AGRI 5110 - Advanced Agribusiness Management (3)
- AGRI 5145 - Agricultural Economics and Statistics (3)
- AGRI 5800 - Research Problems in Agriculture (1-3) (3)

Select a Track: 6 Semester Hours

Animal Science Track

- AGRI 5415 - Advanced Animal Science (3: 2 lecture 1 lab)
- AGRI 5445 - Advanced Beef Cattle and Swine Production (3: 2 lecture, 1 lab)

Plant Science Track

- AGRI 5315 - Advanced Plant Breeding and Genetics (3: 2 lecture, 1 lab)
- AGRI 5325 - Advanced Plant Diseases (3: 2 lecture, 1 lab)

Minimum Graduate Hour Total: 18 Semester Hours

Department of Biological and Clinical Sciences

Biology, MS (53-382) (30 hours) [Also available as an accelerated program]

Student Learning Outcomes

The graduate with a Master of Science degree in Biology will use the knowledge and skills obtained in the program to:

- Demonstrate an understanding of the theories and principles of biology and of the development of biology as a discipline in the student's area of specialization.
- Utilize the language and concepts of biology effectively in oral and written presentations.
- Select, apply, and interpret appropriate metrics and analyses to resolve biological issues and problems in the student's area of specialization.

Thesis Option: Develop, implement and carry through to completion original research by utilizing the language and concepts of biology effectively in oral and written presentations.
Non-thesis Option: Develop knowledge base, oral and written communication, and critical thinking skills.

Admission Requirements

The application deadline for Fall admissions is February 15 and the application deadline for Spring admissions is September 15. If program application dates are missed, the applicant may request their packet be forwarded to the next semester for consideration.

Preference for admission to the program is given to prospective students with the following:

- Have a minimum of 30 semester hours in biology, 8 hours of chemistry and a statistics course.
- Have a minimum 2.75 GPA overall.
- Provide three letters of recommendation.
- Submit a statement of purpose and intent, which includes 1) the proposed area of research/project (thesis option) or general area of interest (non-thesis option), 2) faculty member(s) involved, and how the project fits with the faculty member's area of expertise, as well as 3) the student's research and career goals.
- The UCM Biology faculty member agreeing to serve as the primary advisor will provide documentation of this agreement (Advisor Document) to the applicant.

Applicants may still be considered if one or more criteria are not met, but additional emphasis may be placed on the remaining requirements. Students provisionally admitted into the program are expected to fulfill deficiencies in coursework within the first year.

The graduate student must have a faculty member commit to serving as the primary advisor prior to admission. Prior to submitting an application to the graduate program, applicants should contact faculty members within Biology that have shared interests to determine available space within the respective faculty member's lab. Students may take graduate courses once accepted by UCM Graduate Studies, but MUST have an advisor before acceptance into this degree program.

A student must submit a written thesis and present a research seminar (thesis option) or pass an exam based on coursework (non-thesis option).

All biology graduate students must comply with "The Graduate Guide" and all university and Biology policies.

Students who have already taken a 4000 level course as an UCM undergraduate student may not repeat any 5000 level co-listed courses for credit, hours, or advancement towards any degree or certificate in the Biology Program.

Thesis students must present their project to the faculty on either the Friday before break of the Fall or Spring semester, each year, to show progression in their program.

Required Graduate Courses: 9 Semester Hours

- BIOL 5113 - Biostatistics (3)
  OR
- Graduate level statistics course (3)

- BIOL 5005 - Graduate Seminar (1) (2)
- BIOL 5031 - Biological Literature (2)
- BIOL 5955 - Graduate Research 1 (2)

Choose Thesis or Non-Thesis Area: 21 Semester Hours

Thesis Area

Required Courses: 4 Semester Hours

- BIOL 5956 - Graduate Research 2 (2)
- BIOL 5951 - Master's Thesis (2)

Approved Graduate Electives in Biology: 17 Semester Hours

- BIOL 5005 - Graduate Seminar (1)
- BIOL 5006 - Contemporary Seminar Readings (1)
- BIOL 5008 - Grant Writing for Research Science (2)
- BIOL 5011 - Special Topics in Biology (1-5)
- BIOL 5012 - Special Projects in Biology (0-8)
- BIOL 5013 - Biometry (3: 2 lecture, 1 lab)
- BIOL 5014 - Internship in Biology (1-9)
- BIOL 5015 - Technical Graphing and Data Illustration (1)
- BIOL 5016 - Statistical Software Application (1)
- BIOL 5017 - Quantitative Biology (3: 2 lecture, 1 lab)
- BIOL 5032 - History of Biology (2)
- BIOL 5102 - Evolution (3)
- BIOL 5113 - Biostatistics (3)
- BIOL 5210 - Ichthyology (3) OR BIOL 5210 - Ichthyology (3) **AND** BIOL 5210L - Ichthyology Lab (1: 1 lab)
- BIOL 5221 - Mammalogy (2) OR BIOL 5221 - Mammalogy (2) **AND** BIOL 5221L - Mammalogy Lab (2: 2 lab)
- BIOL 5223 - Ornithology (2) OR BIOL 5223 - Ornithology (2) **AND** BIOL 5223L - Ornithology Lab (2: 2 lab)
- BIOL 5232 - Herpetology (2) OR BIOL 5232 - Herpetology (2) **AND** BIOL 5232L - Herpetology Lab (2: 2 lab)
- BIOL 5311 - Parasitology (4: 2 lecture, 2 lab)
- BIOL 5312 - Entomology (2) OR BIOL 5312 - Entomology (2) **AND** BIOL 5312L - Entomology Lab (2: 2 lab)
- BIOL 5400 - Endocrinology (2)
- BIOL 5411 - Plant Physiology (4: 2 lecture, 2 lab)
- BIOL 5412 - Wildlife Diseases (4: 3 lecture, 1 lab)
- BIOL 5514 - Molecular Biology (3)

- BIOL 5515 - Molecular Technology (3: 2 lecture, 1 lab)
- BIOL 5516 - Hematology/Virology (3)
- BIOL 5517 - Serology Laboratory (1)
- BIOL 5614 - Bioterrorism (2)
- BIOL 5709 - Plant Ecology (4: 2 lecture, 2 lab)
- BIOL 5710 - Freshwater Biology (4)
- BIOL 5711 - Animal Ecology (3) OR BIOL 5711 - Animal Ecology (3) **AND** BIOL 5711L - Animal Ecology Lab (1: 1 lab)
- BIOL 5720 - Biogeography (2)
- BIOL 5722 - Conservation Biology (3)
- BIOL 5919 - Wildlife Policy and Law (3)
- BIOL 5950 - Graduate Teaching Internship (2)
- BIOL 5953 - Ecology Field Course (1-6)
- BIOL 5954 - Contemporary Topics in Biology (1-4)

Non-Thesis Area

Approved Graduate Electives in Biology: 21 Semester Hours

- BIOL 5006 - Contemporary Seminar Readings (1)
- BIOL 5008 - Grant Writing for Research Science (2)
- BIOL 5011 - Special Topics in Biology (1-5)
- BIOL 5012 - Special Projects in Biology (0-8)
- BIOL 5013 - Biometry (3: 2 lecture, 1 lab)
- BIOL 5014 - Internship in Biology (1-9)
- BIOL 5015 - Technical Graphing and Data Illustration (1)
- BIOL 5016 - Statistical Software Application (1)
- BIOL 5017 - Quantitative Biology (3: 2 lecture, 1 lab)
- BIOL 5032 - History of Biology (2)
- BIOL 5102 - Evolution (3)
- BIOL 5210 - Ichthyology (3) OR BIOL 5210 - Ichthyology (3) **AND** BIOL 5210L - Ichthyology Lab (1: 1 lab)
- BIOL 5221 - Mammalogy (2) OR BIOL 5221 - Mammalogy (2) **AND** BIOL 5221L - Mammalogy Lab (2: 2 lab)
- BIOL 5223 - Ornithology (2) OR BIOL 5223 - Ornithology (2) **AND** BIOL 5223L - Ornithology Lab (2: 2 lab)
- BIOL 5232 - Herpetology (2) OR BIOL 5232 - Herpetology (2) **AND** BIOL 5232L - Herpetology Lab (2: 2 lab)
- BIOL 5311 - Parasitology (4: 2 lecture, 2 lab)
- BIOL 5312 - Entomology (2) OR BIOL 5312 - Entomology (2) **AND** BIOL 5312L - Entomology Lab (2: 2 lab)
- BIOL 5411 - Plant Physiology (4: 2 lecture, 2 lab)
- BIOL 5412 - Wildlife Diseases (4: 3 lecture, 1 lab)
- BIOL 5514 - Molecular Biology (3)
- BIOL 5515 - Molecular Technology (3: 2 lecture, 1 lab)
- BIOL 5516 - Hematology/Virology (3)
- BIOL 5517 - Serology Laboratory (1)
- BIOL 5614 - Bioterrorism (2)
- BIOL 5709 - Plant Ecology (4: 2 lecture, 2 lab)
- BIOL 5710 - Freshwater Biology (4)
- BIOL 5711 - Animal Ecology (3) OR BIOL 5711 - Animal Ecology (3) **AND** BIOL 5711L - Animal Ecology Lab (1: 1 lab)

- BIOL 5720 - Biogeography (2)
- BIOL 5722 - Conservation Biology (3)
- BIOL 5919 - Wildlife Policy and Law (3)
- BIOL 5950 - Graduate Teaching Internship (2)
- BIOL 5953 - Ecology Field Course (1-6)
- BIOL 5954 - Contemporary Topics in Biology (1-4)

Minimum Graduate Hour Total: 30 Semester Hours

Note:

In addition to the school degree requirements, the following University requirements must be satisfied: a student is limited to a maximum of 6 semester hours of credit in BIOL 5955, BIOL 5956, and BIOL 5951 combined that can apply to a degree on a Master's degree program.

Accelerated Program Notes:

The Accelerated model for this program is designed for the BS Biology.

Preference for admission to the program is given to prospective students with the following:

- 3.0 or higher GPA
- Required to have completed at least 8 credit hours of biology courses, and a grade of a B or higher in each previously completed biology course
- Recommended to have taken at least one chemistry course
- Three letters of recommendation
- Statement of purpose stating career goals for the non-thesis option, and research and career goals for the thesis option

Courses that an accelerated student may be eligible to include as overlap between the undergraduate and graduate programs:

BIOL 5011 - Special Topics in Biology (1-5) (BIOL 4011)

BIOL 5012 - Special Projects in Biology (0-8) (BIOL 4012)

BIOL 5014 - Internship in Biology (1-9) (BIOL 4014)

BIOL 5102 - Evolution (3) (BIOL 4102)

BIOL 5113 - Biostatistics (3) (BIOL 4013)

BIOL 5210L - Ichthyology Lab (1: 1 lab) (BIOL 4210L)

BIOL 5210 - Ichthyology (3) (BIOL 4210)

BIOL 5221L - Mammalogy Lab (2: 2 lab) (BIOL 4221L)

BIOL 5221 - Mammalogy (2) (BIOL 4221)

BIOL 5223L - Ornithology Lab (2: 2 lab) (BIOL 4223L)

BIOL 5223 - Ornithology (2) (BIOL 4223)

BIOL 5232L - Herpetology Lab (2: 2 lab) (BIOL 4232L)

BIOL 5232 - Herpetology (2) (BIOL 4232)

BIOL 5311 - Parasitology (4: 2 lecture, 2 lab) (BIOL 4311)

BIOL 5312L - Entomology Lab (2: 2 lab) (BIOL 4312L)

BIOL 5312 - Entomology (2) (BIOL 4312)

BIOL 5400 - Endocrinology (2) (BIOL 4400)

BIOL 5411 - Plant Physiology (4: 2 lecture, 2 lab) (BIOL 4411)

BIOL 5412 - Wildlife Diseases (4: 3 lecture, 1 lab) (BIOL 4412)

BIOL 5514 - Molecular Biology (3) (BIOL 4514)

BIOL 5515 - Molecular Technology (3: 2 lecture, 1 lab) (BIOL 4515)

BIOL 5516 - Hematology/Virology (3) (BIOL 4516)

BIOL 5517 - Serology Laboratory (1) (BIOL 4517)

BIOL 5709 - Plant Ecology (4: 2 lecture, 2 lab) (BIOL 4709)

BIOL 5710 - Freshwater Biology (4) (BIOL 4710)

BIOL 5711L - Animal Ecology Lab (1: 1 lab) (BIOL 4711L)

BIOL 5711 - Animal Ecology (3) (BIOL 4711)

BIOL 5722 - Conservation Biology (3) (BIOL 4722)

BIOL 5919 - Wildlife Policy and Law (3) (BIOL 4919)

BIOL 5953 - Ecology Field Course (1-6) (BIOL 4953)

Department of Computer Science and Cybersecurity

Computer Science, MS (53-976) (30 hours) [Also available as an accelerated program]

Student Learning Outcomes

The graduate with a Master of Science degree in Computer Science will use the knowledge and skills obtained in the program to:

- Apply algorithmic principles and computing theories to solve advanced problems in Computer Science.
- Apply design and development principles in construction of computer-based systems of varying complexity.
- Be able to use current techniques, skills, and tools necessary for computing practice.
- Communicate effectively with a range of audiences, work effectively in a team environment, and demonstrate an understanding of ethical concerns related to computing.
- Recognize the need for and engage in continuing professional development.

This program is designed to produce senior computer professionals in the computer industry, and its focus is on the application of technology to solve a variety of practical problems.

Admission Requirements

To be admitted to the program, an applicant must meet one of the following requirements:

1. The applicant is a graduate of a regionally accredited college or university with an undergraduate degree in Computer Science, Information Technology, Information Systems, Data Science or Cybersecurity and a GPA of 3.0 or more.
2. The applicant is a graduate of a regionally accredited college or university with a degree in a closely related field, such as Electrical Engineering, Computer Engineering, or Communications Engineering with a GPA of 3.25 or more. Completion of additional undergraduate preparatory courses will be required.
3. An applicant holding an undergraduate degree in Computer Science, Information Technology, Information Systems, Data Science, Cybersecurity, Electrical Engineering, Computer Engineering, or Communications Engineering with a GPA of 2.8 and has earned an M.S. or more advanced degree in a closely related discipline. Completion of additional undergraduate preparatory courses could be required.
4. An applicant holding an undergraduate degree in Computer Science, Information Technology, Information Systems, Data Science, Cybersecurity, Electrical Engineering, Computer Engineering, or Communications Engineering that does not meet the GPA requirement in Requirement 1 or Requirement 2, above, must have a minimum undergraduate grade point average (GPA) of 2.8 and a Graduate Record Examination (GRE) with a minimum combined score of 291 in Verbal and Quantitative reasoning. Completion of additional undergraduate preparatory courses will be required. Applicants must submit official GRE test scores through the Educational Testing Services (ETS) directly to the University of Central Missouri. The ETS institution code for sending GRE scores to UCM is 6090 and the program code is 0402.

International students whose native language is not English and do not have a US degree are required to take the Test of English as a Foreign Language (TOEFL). A minimum TOEFL score of 79 is required. Duolingo and IELTS scores are also accepted at UCM. Regular graduate students should have a composite exam score of 120 in Duolingo or a band score of 6.0 in IELTS. The English requirement is waived for applicants who have completed a minimum of 60 semester credit hours or have earned a bachelor or graduate degree from an accredited college or university in the USA. Submission of a statement of purpose and three letters of recommendation is OPTIONAL for admission. They may however be required if the student applies for graduate assistantship or student worker positions.

Full time students with no deficiencies can expect to complete this program in two academic years.

Required Undergraduate Background Course: 0-3 Semester Hours

The following undergraduate course (or equivalent) is required for student whose undergraduate major is not in Computer Science, Information Technology, or Information Systems.

- CS 4150 - Object-Oriented Programming and Data Structures (3)

Required Graduate Courses: 12 Semester Hours

- CS 5300 - Advanced Algorithms (3)
- CS 5500 - Advanced Operating Systems (3)
- CS 5900 - Compiler Design and Construction (3)

- CS 5600 - Advanced Database Systems (3)
  OR
- CYBR 5800 - Advanced Computer Networking and Security (3)

Select an Area: 18 Semester Hours

Software Development Area

Electives from the Following: 9-12 Semester Hours

- CS 5110 - Advanced Applications Programming in C# and .NET (3)
- CS 5220 - Advanced Applications Programming in Java (3)
- SE 5910 - Advanced Software Engineering (3)
- SE 5930 - Software Testing and Quality Assurance (3)

Electives from the following: 6-9 Semester Hours

- CS 5000 - Special Topics in Computer Science (1-3) (3)
- CS 5010 - Seminar in Computer Science (1-3) (3)
- CS 5020 - Internship in Computer Science (1-3) (1-3) ^
- CS 5030 - Readings in Computer Science (1-5) (3)
- CS 5040 - Master's Project (3) #
- CS 5120 - Mobile Applications Programming with Android (3)
- CS 5130 - Advanced Web Applications and Services Development (3)
- CS 5160 - Advanced Applications Programming in Python (3)
- CS 5200 - Database Theory and Applications (3) +
- CS 5600 - Advanced Database Systems (3) *
- CS 5610 - Introduction to Cloud Computing (3)
- CS 5660 - Introduction to Cloud Services (3)
- CS 5700 - Artificial Intelligence (3)
- CS 5710 - Machine Learning (3)
- CS 5720 - Neural Network and Deep Learning (3)
- CS 5730 - Image Processing and Computer Vision (3)
- CS 5760 - Natural Language Processing (3)
- CS 5810 - Computer Graphics (3)
- CS 6010 - Thesis (3) (6) #
- CYBR 5140 - Introduction to Malware (3)
- CYBR 5240 - Web Application Security (3)
- CYBR 5310 - Design of Cryptographic Algorithms and Protocols (3)
- CYBR 5610 - Cloud Security (3)
- CYBR 5720 - Cybersecurity Policies and Risk Management (3)
- CYBR 5800 - Advanced Computer Networking and Security (3)
- CYBR 5820 - Introduction to Information Assurance (3)
- CYBR 5840 - Ethical Hacking (3)
- CYBR 5850 - Computer and Network Forensics (3)
- CYBR 5920 - Software Security (3)
- CYBR 5940 - Threat Intelligence and Incident Response (3)
- DSA 5100 - Programming Foundations for Data Science and AI (3)
- DSA 5200 - Advanced Data Visualization (3)
- DSA 5400 - Statistical Foundations for Data Science and AI (3)
- DSA 5600 - NoSQL Database Systems (3)
- DSA 5620 - Big Data Analytics (3)
- SE 5940 - Software Design and Architecture (3)
- SE 5950 - Secure Software Engineering (3)

Cloud Computing Area

Electives from the Following: 9 Semester Hours

- CS 5610 - Introduction to Cloud Computing (3)
- CS 5660 - Introduction to Cloud Services (3)
- CYBR 5610 - Cloud Security (3)
- CYBR 5800 - Advanced Computer Networking and Security (3) *

Electives from the following: 9 Semester Hours

- CS 5000 - Special Topics in Computer Science (1-3) (3)
- CS 5010 - Seminar in Computer Science (1-3) (3)
- CS 5020 - Internship in Computer Science (1-3) (1-3) ^
- CS 5030 - Readings in Computer Science (1-5) (3)
- CS 5040 - Master's Project (3) #
- CS 5120 - Mobile Applications Programming with Android (3)
- CS 5130 - Advanced Web Applications and Services Development (3)
- CS 5160 - Advanced Applications Programming in Python (3)
- CS 5200 - Database Theory and Applications (3) +
- CS 5220 - Advanced Applications Programming in Java (3)
- CS 5600 - Advanced Database Systems (3) *
- CS 5700 - Artificial Intelligence (3)
- CS 5710 - Machine Learning (3)
- CS 5720 - Neural Network and Deep Learning (3)
- CS 5730 - Image Processing and Computer Vision (3)
- CS 5760 - Natural Language Processing (3)
- CS 5810 - Computer Graphics (3)
- CS 6010 - Thesis (3) #
- CYBR 5140 - Introduction to Malware (3)
- CYBR 5240 - Web Application Security (3)
- CYBR 5310 - Design of Cryptographic Algorithms and Protocols (3)
- CYBR 5720 - Cybersecurity Policies and Risk Management (3)
- CYBR 5820 - Introduction to Information Assurance (3)
- CYBR 5840 - Ethical Hacking (3)
- CYBR 5850 - Computer and Network Forensics (3)
- CYBR 5920 - Software Security (3)
- CYBR 5940 - Threat Intelligence and Incident Response (3)
- DSA 5100 - Programming Foundations for Data Science and AI (3)
- DSA 5200 - Advanced Data Visualization (3)
- DSA 5400 - Statistical Foundations for Data Science and AI (3)
- DSA 5600 - NoSQL Database Systems (3)
- DSA 5620 - Big Data Analytics (3)
- SE 5940 - Software Design and Architecture (3)
- SE 5950 - Secure Software Engineering (3)

General Computer Science Area

Electives from the following: 18 Semester Hours

- CS 5000 - Special Topics in Computer Science (1-3) (3)
- CS 5010 - Seminar in Computer Science (1-3) (3)
- CS 5020 - Internship in Computer Science (1-3) (1-3) ^
- CS 5030 - Readings in Computer Science (1-5) (3)
- CS 5040 - Master's Project (3) #
- CS 5110 - Advanced Applications Programming in C# and .NET (3)
- CS 5120 - Mobile Applications Programming with Android (3)
- CS 5130 - Advanced Web Applications and Services Development (3)
- CS 5160 - Advanced Applications Programming in Python (3)
- CS 5200 - Database Theory and Applications (3) +
- CS 5220 - Advanced Applications Programming in Java (3)
- CS 5600 - Advanced Database Systems (3) *
- CS 5610 - Introduction to Cloud Computing (3)
- CS 5660 - Introduction to Cloud Services (3)
- CS 5700 - Artificial Intelligence (3)
- CS 5710 - Machine Learning (3)
- CS 5720 - Neural Network and Deep Learning (3)
- CS 5730 - Image Processing and Computer Vision (3)
- CS 5760 - Natural Language Processing (3)
- CS 5810 - Computer Graphics (3)
- CS 6010 - Thesis (3) (6) #
- CYBR 5140 - Introduction to Malware (3)
- CYBR 5240 - Web Application Security (3)
- CYBR 5310 - Design of Cryptographic Algorithms and Protocols (3)
- CYBR 5610 - Cloud Security (3)
- CYBR 5720 - Cybersecurity Policies and Risk Management (3)
- CYBR 5800 - Advanced Computer Networking and Security (3)
- CYBR 5820 - Introduction to Information Assurance (3)
- CYBR 5840 - Ethical Hacking (3)
- CYBR 5850 - Computer and Network Forensics (3)
- CYBR 5920 - Software Security (3)
- CYBR 5940 - Threat Intelligence and Incident Response (3)
- DSA 5100 - Programming Foundations for Data Science and AI (3)
- DSA 5200 - Advanced Data Visualization (3)
- DSA 5400 - Statistical Foundations for Data Science and AI (3)
- DSA 5600 - NoSQL Database Systems (3)
- DSA 5620 - Big Data Analytics (3)
- SE 5910 - Advanced Software Engineering (3)
- SE 5930 - Software Testing and Quality Assurance (3)
- SE 5940 - Software Design and Architecture (3)
- SE 5950 - Secure Software Engineering (3)

Minimum Graduate Hour Total: 30 Semester Hours

+Students whose undergraduate degree is not in Computer Science, Information Technology or Information Systems must select CS 5200 as an elective.
^Only up to 3 credit hours of CS 5020 can be applied to a student's degree program. Students are expected to take CS 5020 - Internship in Computer Science (1-3) (3) to meet the elective requirements. If the student is unable to

secure an internship, any other graduate level CS course approved by the advisor, may be taken.
#Student cannot take both CS 5040 and CS 6010.
*Course cannot be used as both an elective and core requirement.

CS 6010 may only be used as a program elective for students completing a Thesis. Students who complete this course and do not complete a Thesis will be required to complete the additional required credit hours to meet the minimum hours requirements.

Accelerated Program Notes:

The Accelerated model for this program designed for the BS Computer Science - Computer Networking Option, Computer Science Option, Game Development Option or Software Development Option.

Undergraduate UCM students having completed at least 9 hours of computer science courses above the 1000 level with a major GPA of at least 3.00 may consult with their faculty advisor and complete a school application to declare the accelerated BS/MS major in computer science. Prior to beginning the graduate portion of the program, students in the accelerated program will need to apply to the UCM Graduate School for formal admission to the Accelerated BS/MS program.

Courses that an accelerated student may be eligible to include as overlap between the undergraduate and graduate programs:

CS 5200 - Database Theory and Applications (3) (CS 4600)

CS 5220 - Advanced Applications Programming in Java (3) (CS 4120)

CS 5610 - Introduction to Cloud Computing (3) (CS 4610)

CS 5660 Introduction to Cloud Services (CS 4660)

CS 5700 - Artificial Intelligence (3) (CS 4700)

CS 5710 - Machine Learning (3) (CS 4710)

CS 5720 - Neural Network and Deep Learning (3) (CS 4720)

CS 5760 - Natural Language Processing (3) (CS 4760)

CS 5810 - Computer Graphics (3) (CS 4810)

CYBR 5240 - Web Application Security (3) (CYBR 4140)

CYBR 5610 - Cloud Security (3) (CYBR 4610)

CYBR 5820 - Introduction to Information Assurance (3) (CYBR 4820)

CYBR 5840 - Ethical Hacking (3) (CYBR 4840)

CYBR 5850 - Computer and Network Forensics (3) (CYBR 4850)

CYBR 5920 - Software Security (3) (CYBR 4920)

DSA 5100 Programming Foundations for Data Science and AI (DSA 4100)

DSA 5200 Advanced Data Visualization (DSA 4200)

DSA 5400 Statistical Foundations for Data Science and AI (DSA 4400)

DSA 5600 NoSQL Database Systems (DSA 4600)

DSA 5620 Big Data Analytics (DSA 4620)

SE 5930 - Software Testing and Quality Assurance (3) (SE 4930)

SE 5940 - Software Design and Architecture (3) (SE 4940)

SE 5950 - Secure Software Engineering (3) (SE 4950)

Cybersecurity & Information Assurance, MS (53-875) (30 hours) [Also available as an accelerated program]

Student Learning Outcomes

The graduate with a Master of Science degree in Cybersecurity & Information Assurance will use the knowledge and skills obtained in the program to show:

- An ability to apply algorithmic principles and formal models to solve advanced problems in cybersecurity and computing.
- Design and analyze an organizations information security policies to meet security requirements.
- An ability to design, select, and execute a cybersecurity mechanism to conform to security policy.
- An ability to evaluate and maintain cyber systems for secure and reliable operations.
- An ability to communicate effectively to a range of audiences, work effectively in a team environment, and recognize the need for continual professional development.

This program is designed to prepare graduates with advanced skills in Cybersecurity and Information Assurance. The graduates from the program can apply these skills to protect resources in the cyber domain and work as senior cybersecurity professionals in various sectors of industry that have significant online resources.

Admission Requirements

Admission is granted on the basis of applicant's academic aptitude and potential which will be evaluated through academic record, test scores and/or work experience.To be admitted to the program a student must have an undergraduate grade point average (GPA) of 2.8. Candidates must complete the Graduate Record Examination (GRE) with a minimum combined score of 291 in Verbal and Quantitative reasoning. Applicants must submit official GRE test scores by Educational Testing Services (ETS) directly to the University of Central Missouri. The ETS institution code for sending GRE scores to UCM is 6090, program code is 0402. Applicants with exceptional undergraduate performance may be considered with a lower GRE score. The GRE test requirement can be waived if any one of the following conditions is satisfied:

1. The student is a graduate of a regionally accredited college or university with a degree in Computer Science, Cybersecurity, Data Science, Engineering, Information Technology, Information Systems, Mathematics or Statistics and a GPA of 3.0 or more. Students not in the above-mentioned discipline list should have a 3.25 or more.
2. The student has earned an M.S. or more advanced degree in a closely related discipline.
3. The student has a minimum 3 years of relevant work experience in a US based corporation or a reputed multinational organization.

International students whose native language is not English and do not have a US degree are required to take the Test of English as a Foreign Language (TOEFL). A minimum TOEFL score of 79 is required. Duolingo and IELTS scores are also accepted at UCM. Regular graduate students should have a composite exam score of 120 in Duolingo or a band score of 6.0 in IELTS. The English requirement is waived for applicants who have completed a minimum of 60 semester credit hours or have earned a bachelor or graduate degree from an accredited college or

university in the USA. Submission of a statement of purpose and three letters of recommendation is OPTIONAL for admission. They may however be required if the student applies for graduate assistantship or student worker positions.

Applicants who have degrees in some non-computing fields will also be considered for admission. Students may make up their deficiencies in cybersecurity and related area by completing the required undergraduate background courses.

Full time students with no deficiencies can expect to complete this program in two academic years.

Required Undergraduate Backgound Courses: 0-3 Semester Hours

The following undergraduate course (or equivalent) is required for students who are unable to demonstrate intermediate Python programming knowledge and/or prior coursework in Python.

- CS 4170 - Object Oriented Programming - Python (3)

Required Graduate Courses: 15 Semester Hours

- CYBR 5310 - Design of Cryptographic Algorithms and Protocols (3)
- CYBR 5720 - Cybersecurity Policies and Risk Management (3)
- CYBR 5800 - Advanced Computer Networking and Security (3)
- CYBR 5820 - Introduction to Information Assurance (3)
- CYBR 5940 - Threat Intelligence and Incident Response (3)

Electives from the Following: 15 Semester Hours

- CS 5040 - Master's Project (3) [1]
- CS 5130 - Advanced Web Applications and Services Development (3)
- CS 5160 - Advanced Applications Programming in Python (3)
- CS 5200 - Database Theory and Applications (3)
- CS 5220 - Advanced Applications Programming in Java (3)
- CS 5300 - Advanced Algorithms (3)
- CS 5500 - Advanced Operating Systems (3)
- CS 5610 - Introduction to Cloud Computing (3)
- CS 5660 - Introduction to Cloud Services (3)
- CS 5700 - Artificial Intelligence (3)
- CS 5710 - Machine Learning (3)
- CS 5720 - Neural Network and Deep Learning (3)
- CS 5730 - Image Processing and Computer Vision (3)
- CS 5760 - Natural Language Processing (3)
- CS 5900 - Compiler Design and Construction (3)
- CS 6010 - Thesis (3) [3]
- CYBR 5050 - Special Topics in Cybersecurity (1-3) (3)
- CYBR 5060 - Internship in Cybersecurity (1-3) (1-3) [2]
- CYBR 5140 - Introduction to Malware (3)
- CYBR 5240 - Web Application Security (3)
- CYBR 5610 - Cloud Security (3)
- CYBR 5840 - Ethical Hacking (3)
- CYBR 5850 - Computer and Network Forensics (3)

- CYBR 5920 - Software Security (3)
- DSA 5100 - Programming Foundations for Data Science and AI (3)
- DSA 5200 - Advanced Data Visualization (3)
- DSA 5400 - Statistical Foundations for Data Science and AI (3)
- DSA 5600 - NoSQL Database Systems (3)
- DSA 5620 - Big Data Analytics (3)
- SE 5910 - Advanced Software Engineering (3)
- SE 5930 - Software Testing and Quality Assurance (3)
- SE 5940 - Software Design and Architecture (3)
- SE 5950 - Secure Software Engineering (3)

Minimum Graduate Hour Total: 30 Semester Hours

Notes:

1. Student cannot apply both CS 5040 Master's Project and CS 6010 Thesis towards degree requirements.

2. Only up to 3 credit hours of CYBR 5060 Internship in Cybersecurity can apply to a student's degree program. Students are expected to take 3 credit hours in CYBR 5060 to meet the elective requirements. If the student is unable to secure an internship, any other graduate level CS approved by the adviser, may be taken.

3. At least 6 credit hours of CS 6010 should be completed in order to be applied towards the degree requirement.

Accelerated Program Notes:

The Accelerated model for this program is designed for the BS Cybersecurity.

Undergraduate UCM students having completed at least 9 hours of cybersecurity courses above the 1000 level with a major GPA of at least 3.00 may consult with their faculty advisor and complete a school application to declare the accelerated BS/MS major in cybersecurity. Prior to beginning the graduate portion of the program, students in the accelerated program will need to apply to the UCM Graduate School for formal admission to the Accelerated BS/MS program.

Courses that an accelerated student may be eligible to include as overlap between the undergraduate and graduate programs:

CS 5200 - Database Theory and Applications (3) (CS 4600)

CS 5220 - Advanced Applications Programming in Java (3) (CS 4120)

CS 5610 - Introduction to Cloud Computing (3) (CS 4610)

CS 5660 - Introduction to Cloud Services (3) (CS 4660)

CS 5700 - Artificial Intelligence (3) (CS 4700)

CS 5710 - Machine Learning (3) (CS 4710)

CS 5720 - Neural Network and Deep Learning (3) (CS 4720)

CS 5760 - Natural Language Processing (3) (CS 4760)

CYBR 5240 - Web Application Security (3) (CYBR 4140)

CYBR 5610 - Cloud Security (3) (CYBR 4610)

CYBR 5820 - Introduction to Information Assurance (3) (CYBR 4820)

CYBR 5840 - Ethical Hacking (3) (CYBR 4840)

CYBR 5850 - Computer and Network Forensics (3) (CYBR 4850)

CYBR 5920 - Software Security (3) (CYBR 4920)

CYBR 5940 - Threat Intelligence and Incident Response (3) (CYBR 4940)

DSA 5100 - Programming Foundations for Data Science and AI (3) (DSA 4100)

DSA 5200 - Advanced Data Visualization (3) (DSA 4200)

DSA 5400 - Statistical Foundations for Data Science and AI (3) (DSA 4400)

DSA 5600 - NoSQL Database Systems (3) (DSA 4600)

DSA 5620 - Big Data Analytics (3) (DSA 4620)

SE 5950 - Secure Software Engineering (3) (SE 4950)

Cybersecurity Graduate Certificate (50-G01) (15 hours)

Student Learning Outcomes --- A student with a Graduate Certificate in Cybersecurity will use the knowledge and skills obtained in the program to:

- Design, implement and analyze an organization's information security policies.
- Design, implement and deploy cybersecurity solutions for protecting an organization's information resources.
- Identify the appropriate cryptographic algorithms and protocols to be deployed in the context of an organization's security policy.
- Design and implement secure software.
- Adapt to a dynamic multidisciplinary technological environment through teamwork, ethical concerns, and effective communication.

This program is designed to prepare graduates with most essential advanced skills in Cybersecurity. The graduates from the program can apply these skills to protect resources in the cyber domain.

Admission Requirements --- Admission is granted on the basis of applicant's academic aptitude and potential which will be evaluated through academic record and/or work experience. To be admitted to the program:

- A student must have an undergraduate degree in computer science or a related discipline. Applicants who have degrees in some non-computing fields will also be considered for admission provided they have completed at least one programming course with a grade of B or better.
- A student must have a minimum undergraduate grade point average (GPA) of 2.80.

Required Graduate Courses: 15 Semester Hours

- CYBR 5310 - Design of Cryptographic Algorithms and Protocols (3)
- CYBR 5720 - Cybersecurity Policies and Risk Management (3)
- CYBR 5820 - Introduction to Information Assurance (3)
- CYBR 5840 - Ethical Hacking (3)
- CYBR 5940 - Threat Intelligence and Incident Response (3)

Minimum Graduate Hour Total: 15 Semester Hours

Data Science and Artificial Intelligence, MS (53-1006) (30 hours) [Also available as an accelerated program]

Student Learning Outcomes

The graduate with a Master of Science degree in Data Science and Artificial Intelligence will use the knowledge and skills obtained in the program to:

- Demonstrate proficiency in applying mathematical and statistical principles to data science and artificial intelligence applications.
- Demonstrate an ability to obtain, clean, process and transform large data sets with professional software, packages, and tools to create solutions for real-world applications and help businesses and organizations make informed decisions.
- Apply analytics and artificial intelligence techniques to satisfy the business needs of a wide range of stakeholders.
- Communicate effectively with a range of audiences, work effectively in a team environment, and demonstrate an understanding of ethical concerns related to data science and artificial intelligence.

This program is designed to prepare graduates with advanced skills in Data Science and Artificial Intelligence. The graduates from the program can apply these skills to identify, collect, analyze, manage and transform complex data sets to make informed decisions. Besides acquiring experience in top programming languages, you will also gain hands-on practice with leading data analytics software and platforms.

Admission Requirements

Admission is granted on the basis of applicant's aptitude and potential which will be evaluated through academic records, test scores and/or work experience. To be admitted to the program, a student must have a minimum undergraduate grade point average (GPA) of 2.8. Candidates must complete the Graduate Record Examination (GRE) with a minimum combined score of 291 in Verbal and Quantitative reasoning. Applicants must submit official GRE test scores by Educational Testing Services (ETS) directly to the University of Central Missouri. The ETS institution code for sending GRE scores to UCM is 6090, program code is 0402. Applicants with exceptional undergraduate performance may be considered with a lower GRE score. The GRE test requirement can be waived if any one of the following conditions is satisfied.

1. The student is a graduate of a regionally accredited college or university with a degree in Computer Science, Data Science, Engineering, Information Technology, Information Systems, Mathematics or Statistics and a GPA of 3.0 or more. Students not in the above- mentioned discipline list should have a GPA of 3.25 or more.
2. The student has earned an M.S. or more advanced degree in a closely related discipline.
3. The student has a minimum 3 years of relevant work experience in a US based corporation or a reputed multinational organization.

International students whose native language is not English and do not have a US degree are required to take the Test of English as a Foreign Language (TOEFL). A minimum TOEFL score of 79 is required. Dualingo and IELTS scores are also accepted at UCM. Regular graduate students should have a composite exam score of 120 in Duolingo or a band score of 6.0 in IELTS. The English requirement is waived for applicants who have completed a minimum of 60 semester credit hours or have earned a bachelor or graduate degree from an accredited college or university in the USA. Submission of a statement of purpose and three letters of recommendation is OPTIONAL for admission. They may however be required if the student applies for graduate assistantship or student worker positions.

Applicants who have degrees in some non-computing fields will also be considered for admission. Students may make up their deficiencies in data science and related areas by completing the required undergraduate background courses.

Full time students without deficiencies can expect to complete this program in two academic years.

Required Undergraduate Background Courses: 0-6 Semester Hours

The following undergraduate courses (or equivalent) are required for students who did not have python programming and data analytics in their undergraduate study.

- CS 4170 - Object Oriented Programming - Python (3)
- DSA 1000 - Introduction to Data Analytics (3)

Required Major Courses: 12 Semester Hours

- CS 5200 - Database Theory and Applications (3)
- CS 5300 - Advanced Algorithms (3)
- DSA 5100 - Programming Foundations for Data Science and AI (3)
- DSA 5400 - Statistical Foundations for Data Science and AI (3)

Select an Area: 18 Semester Hours

Data Science Area: 18 Semester Hours

Required Data Science Courses: 9 Semester Hours

- DSA 5200 - Advanced Data Visualization (3)
- DSA 5600 - NoSQL Database Systems (3)
- DSA 5620 - Big Data Analytics (3)

Select Electives from the Following: 9 Semester Hours

- ACST 5351 - Principles of Data Mining (3)
- ACST 5361 - SAS Programming for Statistical Analysis (3)
- CS 5040 - Master's Project (3)
- CS 5110 - Advanced Applications Programming in C# and .NET (3)
- CS 5130 - Advanced Web Applications and Services Development (3)
- CS 5160 - Advanced Applications Programming in Python (3)
- CS 5220 - Advanced Applications Programming in Java (3)
- CS 5600 - Advanced Database Systems (3)
- CS 5610 - Introduction to Cloud Computing (3)
- CS 5700 - Artificial Intelligence (3)
- CS 5710 - Machine Learning (3)
- CS 5720 - Neural Network and Deep Learning (3)
- CS 5730 - Image Processing and Computer Vision (3)
- CS 5760 - Natural Language Processing (3)
- CS 6010 - Thesis (3)
- CYBR 5140 - Introduction to Malware (3)
- CYBR 5240 - Web Application Security (3)
- CYBR 5610 - Cloud Security (3)
- CYBR 5720 - Cybersecurity Policies and Risk Management (3)
- CYBR 5800 - Advanced Computer Networking and Security (3)

- CYBR 5820 - Introduction to Information Assurance (3)
- CYBR 5840 - Ethical Hacking (3)
- CYBR 5920 - Software Security (3)
- CYBR 5940 - Threat Intelligence and Incident Response (3)
- DSA 5020 - Internship in Data Science and Artificial Intelligence (3)
- SE 5910 - Advanced Software Engineering (3)
- SE 5930 - Software Testing and Quality Assurance (3)
- SE 5940 - Software Design and Architecture (3)
- SE 5950 - Secure Software Engineering (3)

Artificial Intelligence Area: 18 Semester Hours

Required Artificial Intelligence Courses: 9 Semester Hours

- CS 5700 - Artificial Intelligence (3)
- CS 5710 - Machine Learning (3)
- CS 5720 - Neural Network and Deep Learning (3)

Select Electives from the Following: 9 Semester Hours

- ACST 5351 - Principles of Data Mining (3)
- ACST 5361 - SAS Programming for Statistical Analysis (3)
- CS 5040 - Master's Project (3)
- CS 5110 - Advanced Applications Programming in C# and .NET (3)
- CS 5130 - Advanced Web Applications and Services Development (3)
- CS 5160 - Advanced Applications Programming in Python (3)
- CS 5220 - Advanced Applications Programming in Java (3)
- CS 5600 - Advanced Database Systems (3)
- CS 5610 - Introduction to Cloud Computing (3)
- CS 5730 - Image Processing and Computer Vision (3)
- CS 5760 - Natural Language Processing (3)
- CS 6010 - Thesis (3)
- CYBR 5140 - Introduction to Malware (3)
- CYBR 5240 - Web Application Security (3)
- CYBR 5610 - Cloud Security (3)
- CYBR 5720 - Cybersecurity Policies and Risk Management (3)
- CYBR 5800 - Advanced Computer Networking and Security (3)
- CYBR 5820 - Introduction to Information Assurance (3)
- CYBR 5840 - Ethical Hacking (3)
- CYBR 5920 - Software Security (3)
- CYBR 5940 - Threat Intelligence and Incident Response (3)
- DSA 5020 - Internship in Data Science and Artificial Intelligence (3)
- DSA 5200 - Advanced Data Visualization (3)
- DSA 5600 - NoSQL Database Systems (3)
- DSA 5620 - Big Data Analytics (3)
- SE 5910 - Advanced Software Engineering (3)
- SE 5930 - Software Testing and Quality Assurance (3)
- SE 5940 - Software Design and Architecture (3)

- SE 5950 - Secure Software Engineering (3)

Minimum Graduate Hours Total: 30 Semester Hours

- Only up to 3 credit hours of DSA 5020 - Internship in Data Science and Artificial Intelligence (3) can be applied to a student's degree program. Students are expected to take DSA 5020 . If the student is unable to secure an internship, any other graduate level CS/CYBR/DSA/SE course approved by the advisor, may be taken.
- Students cannot take both CS 5040 and CS 6010.
- CS 6010 may only be used as a program elective for students completing a thesis. Students who complete this course and do not complete a thesis will be required to complete the additional required credit hours to meet the minimum hours requirements.

Accelerated Program Notes:

The Accelerated model for this program is designed for the BS Data Science.

UCM students having completed at least 9 hours of required courses in the BS Data Science curriculum above the 1000 level with a major GPA of at least 3.00 may consult with their faculty advisor and complete a school application to declare the accelerated BS/MS major in Data Science and Artificial Intelligence. Prior to beginning the graduate portion of the program, students in the accelerated program will need to apply to the UCM Graduate School for formal admission to the Accelerated BS/MS program.

Accelerated student may be eligible to include the following courses as overlap between the undergraduate and graduate programs. They would be taken at the Graduate level (5XXX):

CS 5160 - Advanced Applications Programming in Python (3) (CS 4160)

CS 5200 - Database Theory and Applications (3) (CS 4600)

CS 5220 - Advanced Applications Programming in Java (3) (CS 4120)

CS 5610 - Introduction to Cloud Computing (3) (CS 4610)

CS 5700 - Artificial Intelligence (3) (CS 4700)

CS 5710 - Machine Learning (3) (CS 4710)

CS 5720 - Neural Network and Deep Learning (3) (CS 4720)

CS 5760 - Natural Language Processing (3) (CS 4760)

CYBR 5240 - Web Application Security (3) (CYBR 4140)

CYBR 5820 - Introduction to Information Assurance (3) (CYBR 4820)

DSA 5100 - Programming Foundations for Data Science and AI (3) (DSA 4100)

DSA 5200 - Advanced Data Visualization (3) (DSA 4200)

DSA 5400 - Statistical Foundations for Data Science and AI (3) (DSA 4400)

DSA 5600 - NoSQL Database Systems (3) (DSA 4600)

DSA 5620 - Big Data Analytics (3) (DSA 4620)

SE 5930 - Software Testing and Quality Assurance (3) (SE 4930)

Department of Mathematics, Actuarial Science, and Statistics

Mathematics Graduate Certificate (50-874) (18 hours)

Student Learning Outcomes - An individual who completes the graduate certificate in Mathematics will use the knowledge and skills obtained in the program to:

- Communicate mathematical ideas clearly and coherently.
- Interpret mathematical problems and formulate solutions.
- Construct clear and concise mathematical proofs and other logical arguments.

The graduate certificate in Mathematics is designed for high school teachers, community college or university instructors who need graduate hours in mathematics in order to teach college level mathematics courses.

To be accepted into this program a student must have an undergraduate major in mathematics, or course work equivalent to a Central major in mathematics, with a minimum grade-point average of 3.00 in upper level mathematics courses.

A student not meeting these minimum standards may consult the School of Computer Science and Mathematics for possible acceptance on a conditional basis.

Graduate Electives: 18 Semester Hours

- ACST 5312 - Probability Models (3)
- ACST 5331 - Multivariate Statistical Analysis (3)
- MATH 5100 - Advanced Calculus I (3)
- MATH 5150 - Advanced Calculus II (3)
- MATH 5172 - Functions of a Complex Variable (3)
- MATH 5210 - Topology I (3)
- MATH 5211 - Topology II (3)
- MATH 5400 - Combinatorics (3)
- MATH 5410 - Mathematical Structures (3)
- MATH 5450 - Introduction to Graph Theory (3)
- MATH 5705 - Modern Algebra I (3)
- MATH 5711 - Modern Algebra II (3)
- MATH 5741 - Introduction to the Theory of Numbers (3)
- MATH 5852 - Problems in Teaching Secondary Mathematics (3)
- MATH 5860 - Leadership for Secondary Mathematics Teachers (3)
- MATH 5900 - Special Problems in Mathematics (1-3)

Minimum Graduate Hour Total: 18 Semester Hours

Mathematics, MS (53-456) - Actuarial Science and Statistics Option (0017) (30 hours) [Also available as an accelerated program]

Student Learning Outcomes

The graduate with a Master of Science degree in Mathematics, Actuarial Science and Statistics Option will use the knowledge and skills obtained in the program to:

- Communicate actuarial/statistical ideas clearly and coherently.
- Develop analytical skills to solve complex problems in actuarial/statistical fields.
- Select appropriate software packages to solve real world problems in actuarial/statistical principles.

Admission Requirements

This program is designed to fit the needs of students in actuarial science, statistics, or related areas. To be accepted into this program, a student must have an undergraduate major in mathematics, or course work equivalent to a Central major in mathematics, actuarial science, statistics, or coursework equivalent to a UCM major in mathematics, actuarial science or statistics with a minimum grade point average of 3.00 in upper level mathematics, actuarial science, or statistics courses.

A student not meeting these minimum standards may consult the School of Computer Science and Mathematics for possible acceptance on a conditional basis.

The sequence of courses is designed to begin in the fall semester. Starting in the spring may result in an extended time to complete the degree. No courses are offered in the summer.

Required Graduate Courses: 24 Semester Hours

- ACST 5312 - Probability Models (3)
- ACST 5315 - Mathematical Statistics (3)
- ACST 5321 - Regression Analysis (3)
- ACST 5361 - SAS Programming for Statistical Analysis (3)
- ACST 5530 - Statistical Modeling (3)
- ACST 5331 - Multivariate Statistical Analysis (3)
- ACST 5351 - Principles of Data Mining (3)
- ACST 6912 - Masters Project (3)

Electives from the Following: 6 Semester Hours

- ACST 5322 - Time Series Models and Analysis (3)
- ACST 5323 - Statistical Aspects of Experimental Design (3)
- ACST 5341 - Applied Stochastic Process (3)
- ACST 5510 - Mathematics of Finance (3)
- ACST 5520 - Life Contingencies I (3)
- ACST 5522 - Life Contingencies II (3)
- ACST 5540 - Insurance Modeling (3)
- ACST 5910 - Special Projects in Statistics (1-6)
- ACST 5920 - Internship in Actuarial Science or Statistics (1-3)
- ACST 6910 - Special Topics in Statistics and Actuarial Science (1-6)
- ACST 6950 - Masters Thesis (6)
- CS 5000 - Special Topics in Computer Science (1-3)
- CS 5200 - Database Theory and Applications (3)
- CS 5600 - Advanced Database Systems (3)
- CS 5700 - Artificial Intelligence (3)
- CS 5710 - Machine Learning (3)
- DSA 5100 - Programming Foundations for Data Science and AI (3)
- DSA 5200 - Advanced Data Visualization (3)
- DSA 5600 - NoSQL Database Systems (3)
- DSA 5620 - Big Data Analytics (3)

- FIN 5800 - Managerial Finance (3)
- FIN 5817 - Managing Financial Derivatives (3)
- FIN 5830 - Advanced Financial Institutions and Markets (3)
- FIN 5840 - Investment Analysis and Practice (3)
- MATH 5100 - Advanced Calculus I (3)
- MATH 5150 - Advanced Calculus II (3)

Minimum Graduate Hour Total: 30 Semester Hours

If the required graduate courses have been taken for undergraduate courses at UCM, more courses can be selected from the elective courses to make up the required 24 credit hours.

ACST 6950 may only be used as a program elective for students completing a Thesis. Students who complete this course and do not complete a Thesis will be required to complete the additional required credit hours to meet the minimum hours requirements.

Accelerated Program Notes:

The Accelerated model for this program designed for the BS Actuarial Science and Statistics - Actuarial Science Option.

Undergraduate UCM students with a major GPA of at least 3.00 may consult with their faculty advisor and complete a school application to declare the accelerated BS/MS in Mathematics - Actuarial Science and Statistics Option. Prior to beginning the graduate portion of the program, student in the accelerated program will need to apply to the UCM Graduate School for formal admittance to the Accelerated BS/MS program.

Courses that an accelerated student may be eligible to include as overlap between the undergraduate and graduate programs:

ACST 5312 - Probability Models (3) (ACST 4312)

ACST 5315 - Mathematical Statistics (3) (ACST 4315)

ACST 5321 - Regression Analysis (3) (ACST 4321)

ACST 5322 - Time Series Models and Analysis (3) (ACST 4322)

ACST 5323 - Statistical Aspects of Experimental Design (3) (ACST 4323)

ACST 5331 - Multivariate Statistical Analysis (3) (ACST 4335)

ACST 5351 - Principles of Data Mining (3) (ACST 4351)

ACST 5361 - SAS Programming for Statistical Analysis (3) (ACST 4331)

ACST 5510 - Mathematics of Finance (3) (ACST 4510)

ACST 5520 - Life Contingencies I (3) (ACST 4520)

ACST 5530 - Statistical Modeling (3) (ACST 4530)

ACST 5540 - Insurance Modeling (3) (ACST 4540)

CS 5200 - Database Theory and Applications (3) (CS 4600)

CS 5700 - Artificial Intelligence (3) (CS 4700)

CS 5710 - Machine Learning (3) (CS 4710)

DSA 5100 - Programming Foundations for Data Science and AI (3) (DSA 4100)

DSA 5200 - Advanced Data Visualization (3) (DSA 4200)

DSA 5600 - NoSQL Database Systems (3) (DSA 4600)

DSA 5620 - Big Data Analytics (3) (DSA 4620)

FIN 5817 - Managing Financial Derivatives (3) (FIN 4817)

The Accelerated model for this program designed for the BS Actuarial Science and Statistics - Statistics Option.

Undergraduate UCM students with a major GPA of at least 3.00 may consult with their faculty advisor and complete a school application to declare the accelerated BS/MS in Mathematics - Actuarial Science and Statistics Option. Prior to beginning the graduate portion of the program, student in the accelerated program will need to apply to the UCM Graduate School for formal admittance to the Accelerated BS/MS program.

Courses that an accelerated student may be eligible to include as overlap between the undergraduate and graduate programs:

ACST 5312 - Probability Models (3) (ACST 4312)

ACST 5315 - Mathematical Statistics (3) (ACST 4315)

ACST 5321 - Regression Analysis (3) (ACST 4321)

ACST 5322 - Time Series Models and Analysis (3) (ACST 4322)

ACST 5323 - Statistical Aspects of Experimental Design (3) (ACST 4323)

ACST 5331 - Multivariate Statistical Analysis (3) (ACST 4335)

ACST 5361 - SAS Programming for Statistical Analysis (3) (ACST 4331)

ACST 5510 - Mathematics of Finance (3) (ACST 4510)

ACST 5520 - Life Contingencies I (3) (ACST 4520)

ACST 5530 - Statistical Modeling (3) (ACST 4530)

ACST 5540 - Insurance Modeling (3) (ACST 4540)

CS 5200 - Database Theory and Applications (3) (CS 4600)

CS 5700 - Artificial Intelligence (3) (CS 4700)

CS 5710 - Machine Learning (3) (CS 4710)

FIN 5817 - Managing Financial Derivatives (3) (FIN 4817)

Mathematics, MS (53-456) - Mathematics Option (0003) (30 hours) [Also available as an accelerated program]

Student Learning Outcomes

The graduate with a Master of Science degree in Mathematics will use the knowledge and skills obtained in the program to:

- Communicate mathematical ideas clearly and coherently.
- Interpret mathematical problems and formulate solutions.
- Construct clear and concise mathematical proofs and other logical arguments.

This program is designed to meet the needs of students who:

- are preparing for a Ph.D. program in mathematics or related area,
- plan to teach dual credit or community college mathematics courses, or
- wish to advance their career in business, industry or government in areas that require an advanced understanding of mathematics.

Admission Requirements

To be accepted into this program, a student must have an undergraduate degree in mathematics, or course work equivalent to a Central major in mathematics, with a minimum grade point average of 3.00 in upper level mathematics courses. A student not meeting these minimum standards may consult the School of Computer Science and Mathematics for possible acceptance on a conditional basis.

Before completion of the program, a student must do one of the following: pass a comprehensive exam, write and successfully defend a thesis, or write and present a master's project.

Required Graduate Courses: 15 Semester Hours

- MATH 5100 - Advanced Calculus I (3)
- MATH 5150 - Advanced Calculus II (3)
- MATH 5210 - Topology I (3)
- MATH 5705 - Modern Algebra I (3)
- MATH 5711 - Modern Algebra II (3)

Graduate Electives: 15 Semester Hours

- ACST 5312 - Probability Models (3)
- ACST 5321 - Regression Analysis (3)
- ACST 5351 - Principles of Data Mining (3)
- ACST 5510 - Mathematics of Finance (3)
- MATH 5172 - Functions of a Complex Variable (3)
- MATH 5211 - Topology II (3)
- MATH 5400 - Combinatorics (3)
- MATH 5410 - Mathematical Structures (3)
- MATH 5450 - Introduction to Graph Theory (3)
- MATH 5741 - Introduction to the Theory of Numbers (3)
- MATH 5852 - Problems in Teaching Secondary Mathematics (3)
- MATH 5860 - Leadership for Secondary Mathematics Teachers (3)
- MATH 5900 - Special Problems in Mathematics (1-3)
- MATH 5911 - Special Topics in Mathematics (1-3)
- MATH 5950 - Master's Project (3)
- MATH 6950 - Thesis (6)

Minimum Graduate Hour Total: 30 Semester Hours

Note: MATH 6950 may only be used as a program elective for students completing a Thesis. Students who complete this course and do not complete a Thesis will be required to complete the additional required credit hours to meet the minimum hours requirements.

Accelerated Program Notes:

The Accelerated model for this program designed for the BS Mathematics.

Undergraduate UCM students that are interested should meet with the Mathematics Program Coordinator no later than fall of the sophomore year.

Courses that an accelerated student may be eligible to include as overlap between the undergraduate and graduate programs:

ACST 5312 - Probability Models (3) (ACST 4312)

ACST 5321 - Regression Analysis (3) (ACST 4321)

ACST 5351 - Principles of Data Mining (3) (ACST 4351)

ACST 5510 - Mathematics of Finance (3) (ACST 4510)

MATH 5100 - Advanced Calculus I (3) (MATH 4150)

MATH 5172 - Functions of a Complex Variable (3) (MATH 4171)

MATH 5210 - Topology I (3) (MATH 4210)

MATH 5400 - Combinatorics (3) (MATH 4400)

MATH 5450 - Introduction to Graph Theory (3) (MATH 4450)

MATH 5705 - Modern Algebra I (3) (MATH 4711)

MATH 5741 - Introduction to the Theory of Numbers (3) (MATH 4741)

Department of Nutrition, Kinesiology, and Health

Athletic Training, MS (53-643) (52 hours)

Athletic Training Program (ATP)

- The Master of Science degree in Athletic Training is accredited by the Commission on Accreditation of Athletic Training Education (CAATE).
- In order to be admitted into the UCM MSAT program, a student must first apply through ATCAS (https://ATCAS.liaisoncas.com/applicant-ux/#/deeplink/programSearch/organization/239528099887053094). Once admitted to the UCM MSAT program, the UCM Office of Graduate Studies will be in touch with you on next steps as a UCM student including gaining access to your UCM student account and student ID.
- Information regarding the MSAT can be found at www.ucmo.edu/msat. Questions regarding the Masters of Science Degree in Athletic Training should be directed to bhughes@ucmo.edu.
- The program admits students into the summer term only. The program will have rolling admissions until April 15. All information must be received by the program no later than April 15 (unofficial transcripts are

permissible until bachelor's degree is confirmed). Students will be notified of their conditional admittance into the program by April 30. Final criteria for program admission is an official transcript from the institution where their bachelor's degree was earned. This should be received by the program no later than 10 working days after the bachelor's degree was earned. Failure to comply with these dates may impact your acceptance into the program.

- Note that the application process takes approximately 4-weeks, please plan accordingly to the due date of April 15.

Mission Statement

The mission of the athletic training program at the University of Central Missouri is to produce life-long learners, critical thinkers, and engaged leaders who are ready to take their place in the dynamic world of professional healthcare. The program prepares future athletic trainers to succeed in an integrated healthcare community through the use of evidence-based practice to improve patient outcomes. With a variety of innovative and dynamic learning opportunities, the athletic training program provides the tools necessary to become professionally prepared and to ultimately foster the confidence to allow the student to succeed in the ever-changing world of healthcare.

Vision Statement

Building upon the University's historical charter, the University of Central Missouri Athletic Training Program strives to be regionally recognized as a leader in athletic training education. The program seeks to develop engaged practitioners in an integrated and collaborative medical model emphasizing evidence based clinical application and professional development in a continually evolving healthcare environment.

Program Values

Integrity - Curiosity - Inclusion - Partnership - Engagement

Student Learning Outcomes

The graduate with a Master of Science degree in Athletic Training will use the knowledge and skills obtained in the program to:

Goal 1: Students will demonstrate the necessary core knowledge, and clinical reasoning to become a certified athletic trainer.

Goal 1 Outcomes:

- Students will be prepared to pass the BOC Exam.
- Students will have the knowledge and skills to graduate from MSAT
- Students will have the skills necessary to be employable as an athletic trainer.
- Students will demonstrate the ability to analyze information and draw conclusions based upon critical evaluation, the professional code of ethics, and all applicable laws and regulations.

Goal 2: Students will participate in professional development, leadership development, and professional collaboration.

Goal 2 Outcomes

- Students will have the skills to professionally socialize and become lifelong learners.
- Students will identify continuing education opportunities post certification
- Students will identify and analyze their own personal leadership style
- Students will have the knowledge and skills to successfully practice interprofessional collaboration in the workforce.

Goal 3: Students will learn to appreciate and assess diversity in culture and community to improve patient outcomes.

Goal 3 Outcomes:

- Students will be able to continually self reflect on their personal views of diversity.
- Students will use appropriate nomenclature and recognize health disparities in a diverse patient population.
- Students will demonstrate the ability to work with a diverse patient population.

Admission Requirements

Please refer to the UCM ATCAS portal for document submission criteria.

The admission criteria for the Athletic Training Program include the following:

- Bachelor's degree from an accredited institution
- Minimum 3.00 GPA (based on a 4.00 scale)
- Minimum 3.00 GPA (based on a 4.00 scale) on the following prerequisite courses with a minimum grade of "C" or higher:
    - General Biology and Lab - 3-4 credit hours
    - Human Anatomy, Physiology and Lab - 4-8 credit hours
    - Chemistry and Lab - 3-4 credit hours
    - Nutrition - 3 credit hours
    - Statistics - 3 credit hours
    - General Psychology **OR** Lifespan and Development - 3 credit hours
    - Exercise Physiology - 3 credit hours
    - Physics **OR** Biomechanics - 3 credit hours
- Articulation of courses determined by the review of the ATP Admissions Committee.
- Technical Standards Form (signed by your healthcare provider)
- Physical examination (signed by your healthcare provider)
- Three reference forms (one must be from a faculty member)
- A curriculum vitae or resume
- A personal statement (please see the MSAT website for more details)
- Official transcript where bachelor's degree was earned.
    - If an official transcript is unavailable, an unofficial transcript will be accepted until the degree is awarded and official transcript is available
- For International students seeking admission into the program, additional requirements apply:
    - For full admission to the Athletic Training Master's Program, international students must submit English proficiency scores with a minimum of 6.0 IELTS-Academic or 79 iBT TOEFL.
    - Applicants who do not meet the minimum required English proficiency scores may apply for conditional admission to the program. All conditionally-admitted students must successfully complete the Intensive English Program prior to enrolling in courses for the MS in Athletic Training program. Students who are accepted conditionally do not need to reapply to the Athletic Training program.
- Proof of current personal medical/health insurance
- Proof of current immunization records or verification of prior infection for the following:
    - Hepatitis B series
    - Meningitis
    - Tdap (Tetanus, Diptheria, Pertussis)
    - MMR (Measles, Mumps, Rubella)
    - Varicella (Chickenpox)
    - Polio

Note: Yearly tuberculosis screening and annual flu shots will be required as part of the program. Deadlines for these will be made available once in the program.

- Drug Test and Criminal Background Screening

- Upon submission of your application, a link will be provided to Validity Screening Solutions where you will schedule your drug test and criminal background screening. (There will be an attached fee for this). Both the drug test and criminal background screening will be completed by you through Validity Screening Solutions. Following completion of the drug test and criminal background screening, Validity Screening Solutions will send the confidential results directly to the program director.

Required Graduate Courses: 52 Semester Hours

- AT 5610 - Clinical Athletic Training Methods (3)
- AT 5620 - Responding to Emergencies (3)
- AT 5630 - Principles of Athletic Training (3)
- AT 5640 - Orthopedic Assessment: Lower Extremity (3)
- AT 5650 - Clinical Practicum I (3)
- AT 5660 - Therapeutic Modalities (3: 3 lecture, 0 lab)
- AT 5670 - Orthopedic Assessment: Upper Extremity (3)
- AT 5680 - Clinical Practicum II (3)
- AT 5690 - Therapeutic Rehabilitation (3: 2 lecture, 1 lab)
- AT 6610 - Medical Aspects and Interventions in Athletic Training (4)
- AT 6620 - Clinical Practicum III (3)
- AT 6630 - Management and Professionalism in Athletic Training (3)
- AT 6640 - Clinical Practicum IV (3)
- AT 6650 - Seminar in Athletic Training (3)
- AT 6660 - Internship in Athletic Training (6)
- KIN 5900 - Introduction to Research in Kinesiology (3)

Minimum Graduate Hour Total: 52 Semester Hours

Kinesiology, MS (53-880) (30 hours)

The Kinesiology, MS program is designed to prepare students for careers in areas associated with kinesiology, physical activity, and sports. Students may contact the graduate coordinator for specific questions about the program and course requirements. Students complete 30 credit hours and choose either an Internship or a Thesis for their capstone project. For the Thesis, students must take KIN 6990 and pass an oral defense before completion of the degree.

Student Learning Outcomes

The graduate with a Master of Science degree in Kinesiology will use the knowledge and skills obtained in the program to:

- Demonstrate critical thinking, problem solving, and independent study skills.
- Demonstrate and apply an understanding of current technology available in their area of expertise.
- Explore interdisciplinary relationships within Kinesiology and associated disciplines.
- Examine the nature and effects of discipline-related skills as they are applied in a professional setting.

Admission Requirements

The degree program has a minimum undergraduate grade point average (GPA) of 2.75(/4.00). The undergraduate degree should be in exercise science, kinesiology, or a related field.

For all applicants, the following will be required:

- Statement of Purpose - statement articulating why the prospective student wants to pursue an advanced degree in our program.

For applicants who do not have an undergraduate degree in exercise science, kinesiology, or a related field, the following will be required:

- Prerequisites - at the discretion of the graduate coordinator, prerequisite undergraduate courses may be assigned (e.g., Functional Anatomy, Foundations of Exercise Physiology, Assessment and Evaluation of Fitness and Wellness). Note that while students may be required to take prerequisites, students are fully admitted into the program prior to the completion of prerequisites. Admission is not contingent on the successful completion of prerequisites. Students will enroll in graduate level coursework concurrently with undergraduate prerequisites from their first semester in the program.

International Students:

Regular Academic Student:

- Students in this category apply for the academic degree program, and the English proficiency score provided meets the minimum requirements for enrollment in the program. Students enroll full-time in the academic program upon arrival.

  Minimum scores:

  - TOEFL exam score of 79 IBT
  - IELTS exam score of 6.0

IEP to Degree (IEP to MS):

- Students in this category apply for an academic degree program, however the English proficiency score provided does not meet the minimum requirements. Full-time enrollment in Intensive English classes will be required in the first semester of study, or longer, until the student reaches a level of English proficiency that meets the requirements of the program.

Application Due Dates:

Priority consideration will be given to students who apply at the beginning of the semester prior to the anticipated admissions term. Applicants will be notified of their admission status via an email. Admissions decision will be based upon the merit of the application and the available space in the program.

Required Graduate Courses: 21 Semester Hours

- KIN 5830 - Advanced Exercise Physiology (3)
- KIN 5890 - Laboratory Procedures in Exercise Science (3)
- KIN 5900 - Introduction to Research in Kinesiology (3)
- KIN 5910 - Analysis of Movement (3)
- KIN 6600 - Seminar in Kinesiology (3)

- KIN 6980 - Internship (2-6) (3) **and** Department Approved Elective (3) *
  OR
- KIN 6990 - Thesis (6)

Statistics or Research and Statistics Course: 3 Semester Hours

- ACST 5315 - Mathematical Statistics (3)
- CJ 5610 - Statistics for Criminal Justice (3)
- PE 5150 - Introduction to Applied Research in Physical Education and Coaching (3)
- PSY 5050 - Statistics for the Behavioral Sciences (3)

- SM 5210 - Statistics in Sports Management (3)
- Department Approved Course - See Program Coordinator

Electives from the following: 6 Semester Hours

The program is an MS in Kinesiology. Student interests are varied, but professionally directed. Therefore, based upon the students professional goals, students should select 6 hours from the elective offerings.

- KIN 5680 - Monitoring Athlete Training and Performance (3)
- KIN 5690 - Sport Performance Analytics (3)
- KIN 5850 - Clinical Exercise Physiology (3)
- KIN 5870 - Mechanical Analysis of Sport Skills (3)
- KIN 6900 - Readings in Kinesiology (1-3)
- NUTR 5930 - Sports Nutrition and Metabolism (3)
- PE 5840 - Principles of Motor Learning (3)
- Department Approved Elective **

Minimum Graduate Hour Total: 30 Semester Hours

*Students can take an additional 3 hours of KIN 6980 or select hours from KIN, NUTR, ACST, BIOL, MATH, PE, PSY, SM, or other areas. Students should work with the program coordinator to determine options.

**Students can take elective hours from KIN, NUTR, ACST, BIOL, MATH, PE, PSY, SM, or others areas. Students should work with the program coordinator to determine options.

Nutrition, MS (53-898) - Clinical Nutrition Option (0019) (43 hours)

Student Learning Outcomes

The graduate with a Master's of Science degree in Nutrition in the Department of Nutrition, Kinesiology, and Health will use the knowledge and skills obtained in the program to:

- Demonstrate the competencies and behaviors required to practice dietetics at an entry-level by integrating biochemical and physiological science knowledge with nutritional evidence-based interventions
- Articulate evidence-based solutions to nutritional issues across the life cycle and to assess nutritional status and evaluate current research.
- Acquire the level of conduct appropriate for professional dietetics practice
- Apply evidence-based guidelines, systematic reviews, scientific literature and participate in nutrition research.

Upon successful completion of the Clinical Nutrition Option, students will be eligible to sit for the CDR registration exam for registered dietitians.

Admission Requirements

The Clinical Nutrition Option includes the Didactic portion which is 100% online and the Supervised Experiential Learning (SEL) portion onsite at various locations. Admittance to the program requires an undergraduate degree in an appropriate major, with a minimum accumulated undergraduate GPA of 3.00.

Prerequisites: Completion of the following prerequisite courses with a grade of B or higher are required prior to beginning the professional program. Program prerequisites include either completion of a U.S. Dietetics Program or transcripts showing the completion of all of the prerequisite courses listed below.

- ACCT 1101 - Foundations of Financial Reporting (3 credits)
- BIOL 2510 Basic Genetics (3 credits)
- BIOL 3611 Microbiology with lab (4-5 credits)
- BIOL 3401 Human Anatomy with lab (3 credits)
- BIOL 3402 Human Physiology with lab (5 credits)
- CHEM 1104 Intro to Chemistry with lab (4 credits)
- CHEM 1604 Organic and Biochemistry with lab (4 credits)
- FOOD 2320 Sanitation and Safety (1 credit)
- FOOD 2322 Food Preparation with lab (3-4 credits)
- NUTR 3340 Nutrition (3 credits)
- NUTR 4010 Advanced Nutrition and Human Metabolism (3 credits)

Application Materials:

This program only accepts student in the Fall term. In addition to the online application, the following materials must be submitted by the deadline of January 15: (Second deadline will be extended to June 30 if any spots are still available).

Submission of a current resume which details paid and volunteer experiences.

A Statement of Goals - A statement should include the following (approximately 1000 words):

- Why did you choose UCM?
- What relevant educational, professional and research experiences do you have in the nutrition/dietetics field?
- Why do you want to become a registered dietitian?
- What are your short- and long-term professional/career goals?

Letters of Recommendation - Applicants must submit three (3) letters of recommendation: two from faculty, one from clinical/research supervisor or employer. Choose people who have knowledge of your strengths and goals.

Transcripts - Submission of official transcripts from corresponding institutions for all post-secondary coursework completed.

Clinical Nutrition (Option 0019)

Required Graduate Courses: 43 Semester Hours

- NUTR 5010 - Advanced Nutrition and Human Metabolism (3)
- NUTR 5011 - Food Systems Management (3)
- NUTR 5012 - Medical Nutrition Therapy I (3)
- NUTR 5013 - Practical Applications in Nutrition Research (3)
- NUTR 5014 - Advanced Community Nutrition (3)
- NUTR 5015 - Macronutrients (3)
- NUTR 5016 - Micronutrients (3)
- NUTR 5017 - Nutrition Across the Lifespan (3)
- NUTR 5018 - Nutrition Education and Counseling (3)
- NUTR 5019 - Advanced Medical Nutrition Therapy (3)
- NUTR 6010 - Clinical Supervised Experiential Learning (4)
- NUTR 6011 - Community Supervised Experiential Learning (3)
- NUTR 6012 - Management Supervised Experiential Learning (3)
- NUTR 6013 - Special Problems in Foods and Nutrition (1-3) (3)

Minimum Graduate Hours Total: 43

Nutrition, MS (53-898) - Sport Nutrition Option (0018) (30-33 hours)

Student Learning Outcomes

The graduate with a Master's of Science degree in Nutrition in the Department of Nutrition, Kinesiology, and Health will use the knowledge and skills obtained in the program to:

- Demonstrate the competencies and behaviors required to practice dietetics at an entry-level by integrating biochemical and physiological science knowledge with nutritional evidence-based interventions
- Articulate evidence-based solutions to nutritional issues across the life cycle and to assess nutritional status and evaluate current research.
- Acquire the level of conduct appropriate for professional dietetics practice
- Apply evidence-based guidelines, systematic reviews, scientific literature and participate in nutrition research.

Admission Requirements

The Sport Nutrition Option is offered either Online or Hybrid. Admittance to the program requires an undergraduate degree in an appropriate major, with an accumulated undergraduate GPA greater than 3.00.

Application Materials:

A Statement of Goals - A statement should include the following (approximately 1000 words):

- Why did you choose UCM?
- What relevant educational, professional and research experiences do you have in the nutrition field?
- What are your short- and long-term professional/career goals?

Transcripts - Submission of official transcripts from corresponding institutions for all post-secondary coursework completed.

Prerequisites for Sport Nutrition Option:

- BIOL 3401 Anatomy (3 credits)
- BIOL 3402 Physiology (5 credits)
- CHEM 1104 Intro to Sciences: Chemistry with lab (4-5 credits)
- CHEM 1604 Organic and Biochemistry (4 credits)
- KIN 2850 Foundations of Exercise Physiology (3 credits)
- NUTR 3340 Nutrition (3 credits)
- NUTR 4010 Advanced Nutrition and Human Metabolism (3 credits)
- NUTR 4300 Nutrition for Human Performance (3 credits)

Sport Nutrition (Option 0018)

Thesis Area

Required Graduate Courses: 18 Semester Hours

- KIN 5830 - Advanced Exercise Physiology (3)
- NUTR 5015 - Macronutrients (3)
- NUTR 5016 - Micronutrients (3)
- NUTR 5017 - Nutrition Across the Lifespan (3)

- NUTR 5020 - Dietary Supplements (3)
- NUTR 5930 - Sports Nutrition and Metabolism (3)

Research: 12 Semester Hours

- KIN 5900 - Introduction to Research in Kinesiology (3)
- KIN 6990 - Thesis (6)
- Approved Department Elective (3)

Minimum Graduate Hour Total: 30 Semester Hours

Non-Thesis Area

Required Graduate Courses: 18 Semester Hours

- KIN 5830 - Advanced Exercise Physiology (3)
- NUTR 5015 - Macronutrients (3)
- NUTR 5016 - Micronutrients (3)
- NUTR 5017 - Nutrition Across the Lifespan (3)
- NUTR 5020 - Dietary Supplements (3)
- NUTR 5930 - Sports Nutrition and Metabolism (3)

Research: 6 Semester Hours

- KIN 5900 - Introduction to Research in Kinesiology (3)
- NUTR 5013 - Practical Applications in Nutrition Research (3)

Electives from the following: 9 Semester Hours

- KIN 5890 - Laboratory Procedures in Exercise Science (3)
- NUTR 5012 - Medical Nutrition Therapy I (3)
- NUTR 5014 - Advanced Community Nutrition (3)
- NUTR 5019 - Advanced Medical Nutrition Therapy (3)
- NUTR 5360 - Seminar in Foods and Nutrition (2-3)

Minimum Graduate Hour Total: 33 Semester Hours

Department of Occupational Risk and Safety Sciences

Industrial Hygiene, MS (53-179) (35-44 hours)

Accredited by the Applied Science Accreditation Commission of ABET
111 Market Place, Suite 1050, Baltimore, MD 21202-4012
Phone: (410) 347-7700

Student Learning Outcomes

The graduate with a Master of Science degree in Industrial Hygiene will use the knowledge and skills obtained in the programs to:

- Demonstrate the ability to communicate professionally, both verbally and in writing.
- Demonstrate knowledge of professional integrity and ethical standards.
- Recognize the importance of contemporary, global and societal issues as they relate to the practice of occupational safety and health.
- Develop, coordinate and / or participate on multidisciplinary teams to protect people, property, and the environment.
- Recognize the importance of life-long learning for the purpose of enhancing discipline-specific technical competencies and effectiveness.
- Identify and evaluate agents, stressors, and work practices that impact occupational and non-occupational settings.
- Collect and analyze data using valid scientific qualitative and quantitative methods and procedures.
- Recommend and evaluate hazard mitigation strategies.
  Additionally, graduates with a Master of Science degree in Industrial Hygiene will demonstrate the following specific program outcomes:
- Apply basic skills in developing sampling strategy, sampling methods, and use of control measures.
- Design a hygiene program that mitigates chemical, biological, and physical hazards.
- Collect, analyze, and interpret data using qualitative and quantitative methods of hazard assessment.
- Identify and evaluate agents and stressors in occupational and non-occupational settings.
- Apply techniques of using instrumentation to discover / identify hazards, prioritizing, and implementation for strategies to control or minimize the risks of exposure.
- Evaluate the most appropriate level of protection that considers the degree of hazard, concentration of chemical and nature of the toxicity.

Admission Requirements

Students are admitted into one of two Areas based upon an evaluation of their education and professional certification at the time of application. Once admitted into an Area, students may not change Areas without applying for a change of degree program through the Graduate School and being approved by Safety Sciences.
Admission requirements for both Areas include possession of a bachelor's degree from a Regionally Accredited University with a GPA of 3.00 or higher and one semester of each of the following course work with a grade of "C" or better for each:

- Organic chemistry
- Mammalian or Human physiology
- Biology

Additional requirements by Area are as follows:
Area: Professional Certification - Possession of any of the following designations or certifications: Graduate Safety Practitioner (GSP), Associate Safety Professional (ASP), Certified Safety Professional (CSP), or Certified Industrial Hygienist (CIH).
Area: Foundation - One semester of each of the following courses with the grade of "C" or better for each:

- Chemistry and Physics
- College algebra or higher level math
- Statistics

Students must complete SAFE 5100 prior to or concurrent with SAFE 5140. Students must complete SAFE 5140, SAFE 5200 , and SAFE 5210 before they may enroll in any additional 5000 or 6000 level courses.

Applicants that do not meet all of the above-referenced requirements may be reviewed on a case-by-case basis.

Required Graduate Courses: 29 Semester Hours

- SAFE 5150 - Noise Measurements (2)

- SAFE 5160 - Industrial Ventilation for Environmental Safety and Health (3)
- SAFE 5010 - Organization, Administration, and Supervision of Safety Programs (3)
- SAFE 5120 - Principles of Industrial Hygiene (3)
- SAFE 5130 - Industrial Environmental Monitoring (3)
- SAFE 5170 - Industrial Toxicology (3)
- SAFE 5180 - Principles of Epidemiology (3)
- SAFE 5430 - Occupational Hazard Management (3)
- SAFE 5900 - Intro to Research in Safety Sciences (2)
- SAFE 6900 - Research in Safety Sciences I (2)
- SAFE 6910 - Research in Safety Sciences II (2)

Industrial Hygiene Areas: 6-15 Semester Hours

Professional Certification Area

Graduate Courses: 6 Semester Hours

Elect 6 hours from the following courses.

- SAFE 5450 - Sustainability and Safety (3)
- SAFE 5800 - Managing Fire Risk (3)
- SAFE 6920 - EHS Seminar (3)
- SAFE 6940 - Internship in Safety Sciences (1-6) (3)
- SAFE 6950 - Thesis (3)
- Other approved 5000/6000 level SAFE electives (1-6)

Foundation Area

Required Graduate Courses: 15 Semester Hours

**Indicates courses that must be completed prior to enrolling in any additional courses.

- SAFE 5140 - Safety and Health Laboratory (3) **
- SAFE 5100 - IH Fundamentals (1) **
- SAFE 5200 - EHS Essentials (1) **
- SAFE 5210 - Legislation, Standards and Compliance (1) **
- SAFE 6940 - Internship in Safety Sciences (1-6) (3)

Elect 6 hours from the following courses.

Graduate Courses: 6 Semester Hours

- SAFE 5450 - Sustainability and Safety (3)
- SAFE 5800 - Managing Fire Risk (3)
- SAFE 6920 - EHS Seminar (3)
- SAFE 6950 - Thesis (3)
- Other approved 5000/6000 level SAFE electives (1-6)

Minimum Graduate Hour Total: 35-44 Semester Hours

Note:

SAFE 6950 may only be used as a program elective for students completing a Thesis. Students who complete this course and do not complete a Thesis will be required to complete the additional required credit hours to meet the minimum hours requirements.

Occupational Safety Management, MS (53-257) (30-36 hours) [Also available as an accelerated program]

Student Learning Outcomes

The graduate with a Master of Science degree in Occupational Safety Management will use the knowledge and skills obtained in the programs to:

- An ability to identify, formulate, and solve broadly defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline.
- An ability to formulate or design a system, process, procedure or program to meet desired needs.
- An ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions.
- An ability to communicate effectively with a range of audiences.
- An ability to understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts.
- An ability to function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty.
- An ability to develop a project or research activity resulting in a report that demonstrates both the mastery of the subject matter and a high level of communication skills.

This professional degree is offered to prepare students to assist management in the effective use of resources for the development, implementation and assessment of a comprehensive safety and health program in a variety of occupational settings.

Admission Requirements

Students are admitted into one of three areas based upon their education and work experience at the time of application. Students must specify which area they are seeking admission into. Once admitted into an area, students may not change areas without applying for a change of degree program through the Graduate School and being approved by Safety Sciences.

Admission requirements for all areas include possession of a bachelor's degree from a Regionally Accredited University with a GPA of 2.50 or higher. Additional requirements by area are as follows:

Professional Certification Area - Possession of GSP, ASP, or CSP certification.

Work Experience Area - A minimum of 1 year of full time work experience with at least 50% safety related job duties. Work experience must be documented from one of the following:

1. Eligibility to sit for the ASP exam - eligibility letter from BCSP must be submitted with application to the program. OR
2. Possession of current certification in good standing of any of the following certifications through the BCSP:
    1. Safety Management Specialist (SMS)
    2. Occupational Health and Safety Technologist (OHST)
    3. Construction Health and Safety Technologist (CHST)

4. Safety Trained Supervisor (STS)
5. Safety Trained Supervisor Construction (STSC)

Foundation Area - one semester each of chemistry, physics, college level mathematics (e.g., algebra, geometry, mathematical analysis), and statistics at the undergraduate or postgraduate level. Students must complete SAFE 5100 prior to or concurrent with SAFE 5140. Student must complete SAFE 5140, SAFE 5200, and SAFE 5210 before they may enroll in any additional 5000 or 6000 level courses.

Applicants that do not meet all of the above-referenced requirements may be reviewed on a case-by-case basis.

Students should be advised that courses will not be offered on an arranged basis to meet an individual student's time/availability or desire for a particular course format. Online courses are not self-paced and require weekly reading, writing, and participation.

Required Graduate Courses: 21 Semester Hours

- SAFE 5010 - Organization, Administration, and Supervision of Safety Programs (3)
- SAFE 5120 - Principles of Industrial Hygiene (3)
- SAFE 5430 - Occupational Hazard Management (3)
- SAFE 5450 - Sustainability and Safety (3)
- SAFE 5530 - Risk Management and Financing (3)
- SAFE 5900 - Intro to Research in Safety Sciences (2)
- SAFE 6900 - Research in Safety Sciences I (2)
- SAFE 6910 - Research in Safety Sciences II (2)

Areas: 9-15 Semester Hours

Students must complete all requirements in one of the following areas

Professional Certification Area (2571)

Elect 9 hours from the following courses:

Graduate Courses: 9 Semester Hours

- SAFE 5015 - Emergency Planning and Operations (3)
- SAFE 5020 - Societal Impact of Occupational Disasters (3)
- SAFE 5170 - Industrial Toxicology (3)
- SAFE 5180 - Principles of Epidemiology (3)
- SAFE 5800 - Managing Fire Risk (3)
- SAFE 6920 - EHS Seminar (3)
- SAFE 6950 - Thesis (3)
- Other approved 5000/6000 level SAFE electives (1-9)

Work Experience Area (2572)

Elect 12 hours from the following courses:

Graduate Courses: 12 Semester Hours

- SAFE 5140 - Safety and Health Laboratory (3)

- SAFE 5015 - Emergency Planning and Operations (3)
- SAFE 5020 - Societal Impact of Occupational Disasters (3)
- SAFE 5170 - Industrial Toxicology (3)
- SAFE 5180 - Principles of Epidemiology (3)
- SAFE 5800 - Managing Fire Risk (3)
- SAFE 6920 - EHS Seminar (3)
- SAFE 6940 - Internship in Safety Sciences (1-6) (3) (may not be repeated for more than 3 hours)
- SAFE 6950 - Thesis (3)
- Other approved 5000/6000 level SAFE electives (1-6)

Foundation Area (2573)

**Indicates courses that must be completed prior to enrolling in any additional 5000 or 6000 level courses.

Graduate Courses: 15 Semester Hours

- SAFE 5140 - Safety and Health Laboratory (3) **
- SAFE 5100 - IH Fundamentals (1) **
- SAFE 5200 - EHS Essentials (1) **
- SAFE 5210 - Legislation, Standards and Compliance (1) **
- SAFE 6940 - Internship in Safety Sciences (1-6) (3) (may not be repeated for more than 3 hours)

Electives: 6 Semester Hours

- SAFE 5001 - Ergonomics in Safety and Health (3)
- SAFE 5015 - Emergency Planning and Operations (3)
- SAFE 5020 - Societal Impact of Occupational Disasters (3)
- SAFE 5800 - Managing Fire Risk (3)
- SAFE 6920 - EHS Seminar (3)
- Other approved 5000/6000 level SAFE electives (1-6)

Minimum Graduate Hour Total: 30-36 Semester Hours

Accelerated Program Notes:

The Accelerated model for this program designed for the BS Occupational Safety - Environmental Management Option, BS Occupational Safety - Occupational Health Management Option, and BS Occuational Safety - Safety Management Option.

Undergraduate UCM students with may consult with their faculty advisor and complete a school application to declare the accelerated BS/MS in Occupational Safety. Prior to beginning the graduate portion of the program, student in the accelerated program will need to apply to the UCM Graduate School for formal admittance to the Accelerated BS/MS program.

Courses that an accelerated student may be eligible to include up to 9 hours as overlap between the undergraduate and graduate programs:

SAFE 5001 - Ergonomics in Safety and Health (3) (SAFE 4000)

SAFE 5050 - Food Safety (3) (SAFE 4950)

SAFE 5150 - Noise Measurements (2) (SAFE 4150)

SAFE 5160 - Industrial Ventilation for Environmental Safety and Health (3) (SAFE 4160)

SAFE 5300 - Agricultural Safety (3) (SAFE 4300)

SAFE 5425 - Safety and Health Legislation and Standards (3) (SAFE 4425)

SAFE 5435 - Environmental Compliance (3) (SAFE 4435)

SAFE 5440 - Environmental Air Quality and Pollution Prevention (3) (SAFE 4440)

SAFE 5445 - Water Quality and Waste Water Management (3) (SAFE 4445)

SAFE 5455 - Environmental Remediation (3) (SAFE 4450)

SAFE 5510 - Loss Control (3) (SAFE 4510)

SAFE 5515 - High Hazard Industries (3) (SAFE 4515)

The Accelerated model for this program designed for the BS Environmental, Safety, and Risk Management

Undergraduate UCM students with may consult with their faculty advisor and complete a school application to declare the accelerated BS/MS in Environmental, Safety, and Risk Management/Occupational Safety. Prior to beginning the graduate portion of the program, student in the accelerated program will need to apply to the UCM Graduate School for formal admittance to the Accelerated BS/MS program.

Courses that an accelerated student may be eligible to include up to 9 hours as overlap between the undergraduate and graduate programs:

SAFE 5001 - Ergonomics in Safety and Health (3) (SAFE 4000)

SAFE 5425 - Safety and Health Legislation and Standards (3) (SAFE 4425)

SAFE 5435 - Environmental Compliance (3) (SAFE 4435)

SAFE 5440 - Environmental Air Quality and Pollution Prevention (3) (SAFE 4440)

SAFE 5445 - Water Quality and Waste Water Management (3) (SAFE 4445)

SAFE 5455 - Environmental Remediation (3) (SAFE 4450)

SAFE 5930 - Statistical Analysis for Risk Management (3) (SAFE 4940)

Department of Physical Sciences

Department of Psychological Science

Online Learning and Engagement

Courses

ACCT 5030 - Tax II (3)

A continuation of federal income tax principles with a focus on tax research, responsibilities in tax practice, and an introduction to the taxation of business entities. This course is co-listed with ACCT 4130. Prerequisite(s): ACCT 2930 with a grade of C or better. Fall, Spring.

ACCT 5101 - Managing Decision Making Using Excel (3)

This course is designed to prepare students to make decisions based on cost accounting information. Specifically, the course covers decision making based on economic concepts, how the methods accountants employ to measure costs influence the decision-making process, how to use Microsoft Excel to organize, analyze, and clearly present large data sets, and finally how principal-agent theory affects the outcomes of decisions made. After successfully completing this course, students should be able to competently make decisions when presented with accounting data. Students should also be able to reduce goal incongruence, thereby increasing the chances that their decisions will be carried out. This course is co-listed with ACCT 4101. Prerequisite(s): ACCT 2102 with a grade of C or better or ACCT 5105 with a grade of B or better.

ACCT 5105 - Accounting for Managers (2)

Focus is on understanding, utilizing, and analyzing financial and managerial accounting information to establish a working knowledge of accounting topics necessary for decision-making roles in the current business environment. Prerequisite(s): Admission to the MBA program and BADM 5400.

ACCT 5115 - Financial Reporting and Analysis (3)

Students gain financial statement analytical perspectives required of auditors and credit and equity analysts. Students are also exposed to current advanced topics in financial reporting. This course is co-listed with ACCT 4114. Prerequisite(s): ACCT 3103 or consent of Graduate Coordinator.

ACCT 5120 - Financial Accounting and Reporting I (3)

This course provides an in-depth, advanced study of the theory and practice of financial reporting, with an emphasis on preparing for the Certified Public Accounting Examination. Select topics include the conceptual framework, equity, statement of cash flows, pensions and reporting for governmental and not-for-profit entities. This course is co-listed with ACCT 4121. Prerequisite(s): ACCT 3103 and ACCT 4100.

ACCT 5130 - Seminar in Tax Research and Planning (3)

Graduate course in federal income taxes. The obtaining of tax information from its various sources and using it to make important management and financial decisions. Prerequisite(s): ACCT 5030 or consent of the Graduate Coordinator.

ACCT 5135 - Internship in Accounting (1-6)

Opportunity for students to gain theoretical knowledge and practical experience within a particular accountancy specialization. This course is co-listed with ACCT 4135. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Acceptance into the MA program and approval of the School of Accountancy Director of Graduate Studies.

ACCT 5136 - Estate and Trusts (3)

Provides students with the knowledge base and analytical skills needed for effective planning and administration, with emphasis on tax. Prerequisite(s): ACCT 3130 with a grade of C or better.

ACCT 5137 - Advanced Tax I (3)

Course in federal income taxes with a focus on income tax planning, the taxation of property transactions, and the taxation of partnerships. This course is co-listed with ACCT 4137. Prerequisite(s): ACCT 5030. Fall.

ACCT 5138 - Advanced Tax II (3)

Course in federal income taxes with a focus on the taxation of C-Corporations and S-Corporations, including an introduction to multi-jurisdictional tax issues. This course is co-listed with ACCT 4138. Prerequisite(s): ACCT 5030. Spring.

ACCT 5139 - Seminar in Selected Tax Topics (3)

Graduate course in federal income taxes. Advanced examination of topics including individual tax planning, international taxation and tax strategy. May be repeated for a maximum of 6 semester hours when topics vary. Prerequisite(s): ACCT 5030.

ACCT 5140 - Financial Accounting and Reporting II (3)

This course provides an in-depth, advanced study of the theory and practice of financial reporting, with an emphasis on preparing for the Certified Public Accounting Examination. Select topics include the investments, consolidations, partnerships, leases, derivatives and hedging, foreign currency accounting. This course is co-listed with ACCT 4140. Prerequisite(s): ACCT 3103.

ACCT 5150 - Advanced Auditing (3)

An in-depth study of auditing that includes the theory and application of auditing standards, authoritative literature, sampling techniques, reports, and current topics. Prerequisite(s): ACCT 4105.

ACCT 5155 - Fraud Risk Management/Examination (3)

Course is a survey of white-collar/occupational fraud schemes, and how to identify, investigate, and mitigate them. The merits of criminal and civil legal action as a deterrent and means of recovery will be explored. We will examine the impact of criminologists on current investigation standards. Special topics also include expert witnesses, fraud in bankruptcy, and fraud in business acquisitions. The course will cover a wide array of concealed thefts in organizations, corruption in business and government, and financial statement frauds. The course will specify the impacts of fraud on financial statements, but no prior accounting knowledge will be assumed. This course is co-listed with ACCT 4155.

ACCT 5160 - Data Analytics for Accountants (3)

This course will prepare accounting and business students to be a strategic business partner in the organization. The course will challenge students to think critically about whether and how data can improve business performance, create opportunities, and help manage risks. The course will also expose students to some of the most common business intelligence and analysis software packages currently used in organizations. This course is co-listed with ACCT 4161.

ACCT 5165 - Special Projects in Accounting (1-3)

Individualized or group study under the supervision of school faculty. This course is co-listed with ACCT 4165. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Admission to the MA program and consent of the School of Accountancy Director of Graduate Studies.

ACCT 5191 - International Accounting (3)

Accounting for international transactions, the operations of international firms, foreign exchange markets, comparisons of accounting standards in foreign countries and the procedures by which they and international standards are established. Integrates financial, managerial, and tax accounting in the conduct of international business. Prerequisite(s): ACCT 4100, ACCT 3120 and ACCT 5030.

ACCT 5200 - Budgeting and Financial Management for Government Entities (3)

This course examines theories, practices, and issues of public budgeting and financial management. It covers a wide range of topics including budget techniques, revenue sources, tax strategies, revenue forecasts, public debt and bond issuance, intergovernmental fiscal relations, and basic categories of expenditures.

ACCT 6160 - Readings in Accounting (1-3)

A directed study of selected accounting literature. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Instructor consent.

ACST 5312 - Probability Models (3)

An in-depth study of probability theory and stochastic processes with their applications in fields such as computer science, management science, social science, and operations research. This course is co-listed with ACST 4312. Prerequisite(s): MATH 2153 and ACST 3311. An additional fee is associated with this course.

ACST 5315 - Mathematical Statistics (3)

Mathematical foundation of statistical inference. Topics include but are not limited to random sampling, sampling distributions, methods of estimation, properties of estimators, confidence intervals, hypothesis testing, and their applications. This course is co-listed with ACST 4315. Prerequisite(s): ACST 5312. An additional fee is associated with this course.

ACST 5321 - Regression Analysis (3)

Applied statistical models and methods with an emphasis on regression analysis. This course is co-listed with ACST 4321. Prerequisite(s): ACST 3311. An additional fee is associated with this course.

ACST 5322 - Time Series Models and Analysis (3)

Applied statistical models and methods with an emphasis on time series and forecasting. This course is co-listed with ACST 4322. Prerequisite(s): ACST 5321. An additional fee is associated with this course.

ACST 5323 - Statistical Aspects of Experimental Design (3)

Calculus based statistical aspects of experimental designs that include randomization, replication, blocking, and factorial experiments. This course is co-listed with ACST 4323. Prerequisite(s): ACST 3311. An additional fee is associated with this course.

ACST 5331 - Multivariate Statistical Analysis (3)

Review of regression and analysis of variance. The multivariate normal distribution, Hotelling's T-square distribution, Wishart distribution, discriminant analysis, multivariate analysis of variance, factor analysis. This course is co-listed with ACST 4335. Prerequisite(s): For Actuarial Science and Statistics Option majors ACST 5312 or consent of the instructor. For non-majors ACST 5321 or (ACST 3311 and MATH 5700) or consent of the instructor. An additional fee is associated with this course.

ACST 5341 - Applied Stochastic Process (3)

Introduction to stochastic processes used in stochastic modeling, including discrete and continuous time Markov processes, renewal processes, and Brownian motion Prerequisite(s): ACST 5312 or ACST 5322. An additional fee is associated with this course.

ACST 5351 - Principles of Data Mining (3)

Principles of data mining, including visualizing and exploring data, predictive modeling for classification and regression. This course is co-listed with ACST 4351. Prerequisite(s): ACST 5321. An additional fee is associated with this course.

ACST 5361 - SAS Programming for Statistical Analysis (3)

Introduction to SAS programming for statistical analysis, including reading, writing, managing, describing, and analyzing data, regression analysis, hypothesis testing, and analysis of variance. This course is co-listed with ACST 4331. Prerequisite(s): ACST 3311 with a grade of C or better. An additional fee is associated with this course.

ACST 5510 - Mathematics of Finance (3)

The basic measures of interest, annuities, discounted cash flow analysis, and their applications. This course is co-listed with ACST 4510. Prerequisite(s): MATH 1152. An additional fee is associated with this course.

ACST 5520 - Life Contingencies I (3)

Theory and applications of life contingency risks in the areas of insurance, valuation, and risk management. This course is co-listed with ACST 4520. Prerequisite(s): ACST 5312 and ACST 5510. An additional fee is associated with this course.

ACST 5522 - Life Contingencies II (3)

A study of multiple decrement insurance models, joint life insurance models, pension mathematics, and interest rate risk. Prerequisite(s): ACST 5520. An additional fee is associated with this course.

ACST 5530 - Statistical Modeling (3)

A model-based study of statistical data that is used in decision-making. Models include aggregate loss models, and parametric and non-parametric models. This course is co-listed with ACST 4530. Prerequisite(s): ACST 5321 and ACST 5312. An additional fee is associated with this course.

ACST 5540 - Insurance Modeling (3)

A model-based study of statistical data that is used in decision-making. Models include aggregate loss models, construction of empirical models, parametric models, and credibility models. This course is co-listed with ACST 4540. Prerequisite(s): ACST 5520 and ACST 5530. An additional fee is associated with this course.

ACST 5910 - Special Projects in Statistics (1-6)

Individual reading and presentation of topics not included in the regular offerings of the school. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Approval of Actuarial Science and Statistics Faculty. An additional fee is associated with this course.

ACST 5920 - Internship in Actuarial Science or Statistics (1-3)

Graduate level internship that provides theoretical knowledge and practical applications in actuarial science or statistics. Prerequisite(s): Consent of actuarial science/statistics committee and graduate adviser. An additional fee is associated with this course.

ACST 6910 - Special Topics in Statistics and Actuarial Science (1-6)

Individual reading and presentation of topics not included in the regular offerings of the school but requiring knowledge of statistical inference and thinking beyond an introductory level. May be repeated for a maximum of 9 semester hours. Prerequisite(s): Two of the following courses: ACST 5312, ACST 5315, ACST 5321, and ACST 5530. An additional fee is associated with this course.

ACST 6912 - Masters Project (3)

Non-thesis project in an area of actuarial science/statics, directed by an actuarial science/statistics graduate faculty member and on a comprehensive study that involves the development of an independent investigation, design of the procedure, and the conclusion of the study. Prerequisite(s): Consent of advisor and actuarial science/statistics committee An additional fee is associated with this course.

ACST 6950 - Masters Thesis (6)

Research in an area of actuarial science and statistics and directed by a graduate faculty member in the Department of Computer Science and Cybersecurity, which leads to the completion of a thesis. Prerequisite(s): Consent of advisor and actuarial science/statistics committee An additional fee is associated with this course.

AGRI 5000 - Advanced Readings in Agriculture (1-3)

Advanced readings in the student's field of interest or related areas. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Instructor consent.

AGRI 5110 - Advanced Agribusiness Management (3)

This course is for students interested in careers eventually leading to managerial positions in the grain, feed, fertilizer, farm petroleum and related agricultural industries. During the course, students will learn about the key aspects of managing the agribusiness firm: decision-making, operating and managerial functions, communication, overview of markets, management principles, and the inter-personal work environment within an organization. Prerequisite(s): Instructor consent. Summer.

AGRI 5120 - International Agriculture (3)

Economic, cultural, governmental and environmental factors which influence agricultural production and trade among countries. This course is co-listed with AGRI 4120. Prerequisite(s): AGRI 2130 and AGRI 3210.

AGRI 5140 - Agricultural Policy (3)

History, principles, settings, objectives, and methods of policy development as applied to agriculture in our society. This course is co-listed with AGRI 4140. Prerequisite(s): AGRI 3110 and AGRI 3120.

AGRI 5145 - Agricultural Economics and Statistics (3)

This course is for students interested in the theoretical and methodological foundations required to perform analyses of economic problems in food and agricultural markets. This is an advanced applied course in microeconomic theory, which will use mathematical and statistical tools and concepts, to solve empirical problems focused in agriculture. Prerequisite(s): Instructor consent. Summer.

AGRI 5150 - Natural Resource Economics (3)

Nature of natural resources; economic efficiency as basis for natural resource use; externalities in natural resource use; factors influencing environmental quality; alternate public policy tools for influencing natural resource use. This course is co-listed with AGRI 4150. Prerequisite(s): ECON 1010 and ECON 1011.

AGRI 5230 - Agricultural Machinery Management (3)

The capacities, costs, and practicalities of various mechanical systems used in the agricultural industry. Prerequisite(s): 15 semester hours of agriculture courses.

AGRI 5310 - Pasture Management (3)

Maintenance and uses of grasses and legumes for pastures. Prerequisite(s): AGRI 2330 and AGRI 2315.

AGRI 5315 - Advanced Plant Breeding and Genetics (3: 2 lecture, 1 lab)

The principles involved in the selection and development of economically important plants. Traditional and modern practices (cell culture and biotechnology) will discussed. Prerequisite(s): Instructor consent. Summer.

AGRI 5325 - Advanced Plant Diseases (3: 2 lecture, 1 lab)

Examination and discussion of economically significant diseases that attack agronomic and horticultural crops, along with the various strategies used to manage these diseases. Prerequisite(s): Instructor consent. Summer.

AGRI 5410 - Advanced Animal Breeding (3)

An in-depth study of methods of livestock selection utilizing genetic variation. Prerequisite(s): AGRI 3410.

AGRI 5415 - Advanced Animal Science (3: 2 lecture 1 lab)

This course will educate graduate students with advanced information in area of animal science pertaining to the farm animal livestock species. Areas discussed will be nutrition physiology, quantitative and population genetics, endocrinology, reproductive physiology and animal behavior. Prerequisite(s): Instructor consent.

AGRI 5430 - Animal Science: Beef (3)

Systems of beef production. Includes breeding, feeding, and management of commercial and purebred beef. This course is co-listed with AGRI 4430. Prerequisite(s): AGRI 1420. An additional fee is associated with this course.

AGRI 5435 - Animal Science: Pork (3)

Systems of pork production. Includes breeding, feeding, and management of commercial and purebred swine. This course is co-listed with AGRI 4435. Prerequisite(s): AGRI 1420. An additional fee is associated with this course.

AGRI 5445 - Advanced Beef Cattle and Swine Production (3: 2 lecture, 1 lab)

Management techniques utilized in commercial and purebred beef cattle and swine production. The four production segments for each industry will be covered. For each segment of the industry, appropriate information pertaining to reproduction, genetics and selection strategies, nutrition, and health management will be discussed in class lecture and performed in hands-on laboratories. Prerequisite(s): Instructor consent. Summer.

AGRI 5510 - Animal Health and Diseases (3)

Anatomy, physiology, disease control, parasitic control, and sanitation of farm animals. This course is co-listed with AGRI 4410. Prerequisite(s): AGRI 1420 and CHEM 1104.

AGRI 5600 - Horticultural Plants I: Woody (3)

Identification, description, climatic adaptation, classification, characteristics and best landscape use of woody horticultural trees and shrubs. This course is co-listed with AGRI 4600. Prerequisite(s): AGRI 1600 or BIOL 1111. An additional fee is associated with this course.

AGRI 5605 - Horticultural Plants II: Herbaceous (3: 2 lecture, 1 lab)

Identification, description, adaptation, classification, cultural characteristics and best use of herbaceous horticultural plants. This course is co-listed with AGRI 4605. Prerequisite(s): AGRI 1600. An additional fee is associated with this course.

AGRI 5610 - Turfgrass Science (3: 2 lecture, 1 lab)

Selection, identification, establishment and maintenance of turfgrasses. This course is co-listed with AGRI 4610. Prerequisite(s): AGRI 1600 and AGRI 2330. An additional fee is associated with this course.

AGRI 5800 - Research Problems in Agriculture (1-3)

Individual investigation of a research topic in agriculture related to the student's interests and career objectives not available under regular classes. May be accomplished by reports, surveys, experiments, and literature review. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Instructor consent.

AGRI 5850 - Research and Thesis (2-4)

Designed to give experience in executing research and analyzing agricultural data. Required for collecting data to complete a thesis. May be repeated for a maximum of 6 semester hours. Prerequisite(s): AGRI 5160 and CTE 5130.

AGRI 5920 - Induction to Teaching Year I (2)

This course is for the professional development of first-year agriculture teachers. Focus is placed on knowledge and skills needed by a beginning teacher. Prerequisite(s): Instructor consent.

AGRI 5930 - Induction to Teaching Year II (2)

This course is for the professional development of second-year agriculture teachers. Focus is placed on knowledge and skills needed by a beginning teacher. Prerequisite(s): Instructor consent.

ANTH 5815 - Special Projects in Anthropology (1-6)

Study, interpretation, and discussion of special topics and problems in anthropology. This course is co-listed with ANTH 4815. May be repeated for a maximum of 15 semester hours. Prerequisite(s): Instructor consent.

ANTH 5820 - Anthropology of Gender (3)

Explores cultural factors influencing roles of women and men in a variety of cultures, from small foraging bands to large industrialized states. Topics include cultural influences on sexual equality, sexual hierarchy, heterosexuality, and homosexuality. This course is co-listed with ANTH 4820.

ANTH 5835 - Anthropological Study Tour (3)

A faculty-led course abroad allowing students to incorporate and apply anthropological theories and practices in an international experience, such as assessing museum exhibits. This course is co-listed with ANTH 4835.

ANTH 5840 - Historical Archaeology (3)

The study of artifacts, architecture, and other material culture to address anthropological topics, such as race, gender, and class, within historic North America. This course is co-listed with ANTH 4840.

ANTH 5870 - Ethnographic Methods (3)

Introduction to ethnography and ethnographic method, including IRB training, participant observation, data collection, data analysis, and writing ethnography. Students will perform their own ethnographic research. This course is co-listed with ANTH 4870.

ANTH 5880 - Human Evolution (3)

Fossils of human ancestors are assessed through the concepts of comparative anatomy, primate behavioral ecology, macroevolution, and genetics, investigating what it means to be human through our ancestors and relatives. This course is co-listed with ANTH 4880.

ART 5010 - Special Projects in Art (0-3)

This course allows the student to further investigate techniques and themes in studio and research special topics. This course is co-listed with ART 4010. May be repeated up to a maximum of 18 semester hours. Prerequisite(s): Instructor consent. An additional fee is associated with this course.

ART 5110 - Special Problems in Drawing (3)

Drawing in all media from models and from imagination leading to finished drawings. Emphasis on composition. Study of old masters and contemporary drawings. May be repeated for a maximum of 9 semester hours. Prerequisite(s): ART 3110. An additional fee is associated with this course.

ART 5210 - Advanced Life Drawing (3)

Drawing from the model at rest and in action in all media. Studies in composition and the analysis of the work of the old and modern masters. Special emphasis given to techniques. May be repeated for a maximum of 9 semester hours. Prerequisite(s): ART 3209. An additional fee is associated with this course.

ART 5324 - Papermaking (3)

Introduces the student to western techniques in hand papermaking: sheet forming and two and three-dimensional paper structures. May be repeated for a maximum of 9 semester hours. Prerequisite(s): 20 semester hours of art. An additional fee is associated with this course.

ART 5410 - Sculpture Studies (3)

Stylistic direction involving preliminary cartoons and scale model forms with an evaluation of the work problems in sculpture. Materials will include clay (terra cotta), plaster, wood, metal, and cast metals with special emphasis placed upon originality, finish, and presentation. The student will be encouraged to select his/her own media. May be repeated for a maximum of 9 semester hours. Prerequisite(s): ART 2420. An additional fee is associated with this course.

ART 5412 - Ceramics Studio (3)

Encourages the development of stylistic direction and exhibition involvement through the intensive study of student/instructor selected areas of ceramics. May be repeated for a maximum of 9 semester hours. An additional fee is associated with this course.

ART 5511 - Advanced Oil Painting (3)

Pictorial organization and the methods and techniques of painting in oils. Analysis of subject matter, preliminary sketches, and preparation of frames for exhibitions. May be repeated for a maximum of 9 semester hours. Prerequisite(s): ART 1325. An additional fee is associated with this course.

ART 5520 - Advanced Watercolor (3)

The methods and techniques of painting in watercolor and gouache. Special attention to subject matter, preliminary sketches, and composition. May be repeated for a maximum of 9 semester hours. Prerequisite(s): ART 3510. An additional fee is associated with this course.

ART 5710 - Printmaking Studio (3)

Advanced study in the specialized areas of printmaking. May be repeated for a maximum of 9

semester hours. Prerequisite(s): ART 3710, ART 3720, ART 3730 and ART 3740, or instructor consent. An additional fee is associated with this course.

ART 5850 - Twentieth Century Art and Architecture (3)

Examines the development of Modern art and architecture in the Western world from its origins in the late nineteenth century to mid-twentieth century Postmodernism using critical and creative thinking about social, political, cultural, intellectual and aesthetic contexts embodied in the visual arts. This course is co-listed with ART 4850. An additional fee is associated with this course.

ART 5860 - Contemporary Art and Design (3)

Examines themes in contemporary art and design and their theoretical frameworks in a global community using critical and creative thinking about social, political, cultural, intellectual and aesthetic contexts embodied in the visual arts and global contemporary culture. This course is co-listed with ART 4860. An additional fee is associated with this course.

AT 5610 - Clinical Athletic Training Methods (3)

Provide the athletic training student with the foundational knowledge of the Athletic Training profession. Introduce medical terminology, documentation/administration, the evaluation process, and concepts of therapeutic interventions. Prerequisite(s): Admission to the MSAT Program. Corequisite(s): AT 5620 and AT 5630. An additional fee is associated with this course.

AT 5620 - Responding to Emergencies (3)

Provide the athletic training student with the foundational knowledge of the Athletic Training profession. Discuss prevention, recognition, mechanism and management of injuries and general medical conditions. Prerequisite(s): Admission to the MSAT Program. Corequisite(s): AT 5610 and AT 5630. An additional fee is associated with this course.

AT 5630 - Principles of Athletic Training (3)

Provide the athletic training student with the foundational knowledge of the Athletic Training profession. Discuss prevention, recognition, mechanism and management of injuries and general medical conditions. Prerequisite(s): Admission to the MSAT Program. Corequisite(s): AT 5610 and AT 5620 An additional fee is associated with this course.

AT 5640 - Orthopedic Assessment: Lower Extremity (3)

Common types of orthopedic dysfunctions in the lower extremity will be discussed. Emphasis will be placed upon mechanism of injury, pathology, recognition/evaluation techniques, protocols, and prevention in patient centered care. Prerequisite(s): AT 5610, AT 5620, AT 5630 and admission to the MSAT program. Corequisite(s): AT 5650 and AT 5660. An additional fee is associated with this course.

AT 5650 - Clinical Practicum I (3)

Evaluation of orthopedic conditions occurring to the lower extremity. Clinical assignment to Clinical Preceptors will occur during the semester to assess clinical learning/implementation. Prerequisite(s): AT 5610, AT 5620, AT 5630 and admission to the MSAT program. Corequisite(s): AT 5640 and AT 5660. An additional fee is associated with this course.

AT 5660 - Therapeutic Modalities (3: 3 lecture, 0 lab)

Principles related to the physiological effects, treatment parameters, intended outcomes utilizing Evidence Based Medicine in the practical application of the various modalities discussed. Prerequisite(s): AT 5610, AT 5620, AT 5630 and admission to the MSAT program. Corequisite(s): AT 5640 and AT 5650. An additional fee is associated with this course.

AT 5670 - Orthopedic Assessment: Upper Extremity (3)

Common types of orthopedic dysfunctions in the upper extremity will be discussed. Emphasis will be placed upon mechanism of injury, pathology, recognition/evaluation techniques, protocols, and prevention in patient centered care. Prerequisite(s): AT 5610, AT 5620, AT 5630, AT 5640, AT 5650, AT 5660 and admission to the MSAT program. Corequisite(s): AT 5680 and AT 5690. An additional fee is associated with this course.

AT 5680 - Clinical Practicum II (3)

Evaluation of orthopedic conditions occurring to the upper extremity. Clinical assignment to Clinical Preceptors will occur during the semester to assess clinical learning/implementation. Prerequisite(s): AT 5610, AT 5620, AT 5630, AT 5640, AT 5650, AT 5660 and admission to the MSAT program. Corequisite(s): AT 5670 and AT 5690. An additional fee is associated with this course.

AT 5690 - Therapeutic Rehabilitation (3: 2 lecture, 1 lab)

Building upon the foundation from AT 5610, this course will bridge theory into clinical application of rehabilitation concepts across the entire spectrum of a patient care. Prerequisite(s): AT 5610, AT 5620, AT 5630, AT 5640, AT 5650, AT 5660 and admission to the MSAT program. Corequisite(s): AT 5670 and AT 5680. An additional fee is associated with this course.

AT 6610 - Medical Aspects and Interventions in Athletic Training (4)

The course provides an overview of concepts related to the general medical evaluation, conditions, and treatments commonly seen in a diverse and active population. Prerequisite(s): AT 5610, AT 5620, AT 5630, AT 5640, AT 5650, AT 5660, AT 5670, AT 5680, AT 5690 and admission to the MSAT program. Corequisite(s): AT 6620. An additional fee is associated with this course.

AT 6620 - Clinical Practicum III (3)

Theoretical and clinical application of diagnostic instrumentations along with the interpretations and findings to assist in medical diagnosis and treatment. Clinical assignment to Clinical Preceptors will occur during the semester to assess clinical learning/implementation. Prerequisite(s): AT 5610, AT 5620, AT 5630, AT 5640, AT 5650, AT 5660, AT 5670, AT 5680, AT 5690 and admission to the MSAT program. Corequisite(s): AT 6610. An additional fee is associated with this course.

AT 6630 - Management and Professionalism in Athletic Training (3)

Discussions in legal/ethical practice, resource management, professional responsibility, inter-professional relationships and medical facility management. Prerequisite(s): AT 5610, AT 5620, AT 5630, AT 5640, AT 5650, AT 5660, AT 5670, AT 5680, AT 5690, AT 6610, AT 6620 and admission to the MSAT program. Corequisite(s): AT 6640. An additional fee is associated with this course.

AT 6640 - Clinical Practicum IV (3)

Emphasis will be placed upon the application of athletic training skills in emergency care, orthopedic appliances, and therapeutic intervention as directed by orthopedic assessment findings in the clinical setting. Clinical assignment to Clinical Preceptors will occur during the semester to assess clinical learning/implementation. Prerequisite(s): AT 5610, AT 5620, AT 5630, AT 5640, AT 5650, AT 5660, AT 5670, AT 5680, AT 5690, AT 6610, AT 6620 and admission to the MSAT program. Corequisite(s): AT 6630. An additional fee is associated with this course.

AT 6650 - Seminar in Athletic Training (3)

The course will prepare students for their national board exam, state licensing requirements, and entry level professional practice. Prerequisite(s): AT 5610, AT 5620, AT 5630, AT 5640, AT 5650, AT 5660, AT 5670, AT 5680, AT 5690, AT 6610, AT 6620, AT 6630, AT 6640 and admission to the MSAT program. Corequisite(s): AT 6660. An additional fee is associated with this course.

AT 6660 - Internship in Athletic Training (6)

The course will provide students the opportunity for a clinical immersive experience and prepare them for the day-to-day tasks of an athletic trainer. Prerequisite(s): AT 5610, AT 5620, AT 5630, AT 5640, AT 5650, AT 5660, AT 5670, AT 5680, AT 5690, AT 6610, AT 6620, AT 6630, AT 6640 and admission to the MSAT program. Corequisite(s): AT 6650. An additional fee is associated with this course.

ATM 5038 - Advanced Hydraulics (3)

Hydraulic system analysis and troubleshooting along with servo and electronic control theory and application. This course is co-listed with ATM 4038. Prerequisite(s): ENGT 5032. An additional fee is associated with this course.

ATM 5410 - Intermodal Transportation (3)

Transportation (air, motor vehicle, pipeline, rail, and water) in the United States as seen from an integrated, intermodal viewpoint. Major aspects include systems analysis, organization, operations, financing, research and development, training, and regulation. Economic, environmental, social, and political factors are also considered. This course is co-listed with ATM 4410. An additional fee is associated with this course.

AVIA 5001 - Graduate Studies Orientation (1)

Orientation to academic and administrative expectation of graduate students including basic academic requirements, conducting aviation research, resources available, professional and personal standards of performance and program progression.

AVIA 5002 - Professional Ethics in Aviation (3)

The course introduces students to ethical issues in aviation such as theoretical frameworks, concepts of business ethics, employee responsibility, accessibility, diversity in aviation, ground issues regarding airports, air traffic control and security, decision-making, as well as health and the environment.

AVIA 5010 - Special Problems in Aviation Technology (2-6)

Meets individual student needs for additional research and/or laboratory experiences in the development of technical knowledge and skills in the areas of power and transportation. May be repeated for a maximum of 6 semester hours.

AVIA 5022 - Aviation Internship (1-3)

Provides experience for students in participating organizations. Students rotate assignments, create written reports of their activities. Prerequisite(s): Graduate adviser consent and Internship coordinator consent; graduate GPA 3.00 or above; minimum of one semester graduate work completed.

AVIA 5030 - Airport Planning and Design (3)

Examine the criteria involved in the planning, design, development, and improvement of airports. Includes planning for normal operating procedures of modern airport facilities. This course is co-listed with AVIA 4030.

AVIA 5032 - Advanced Airport Planning and Design (2)

A continuation of planning, design, development, and improvement of airports. Includes strategic and project planning as well as disaster planning for airport facilities.

AVIA 5040 - Crew Resource Management (3)

A survey and discussion of crew coordination, communication, and resources from both within and without the cockpit including practical approaches to pilot training.

AVIA 5050 - Flight Deck Ergonomics (3)

A survey of the design of the aircraft flight deck and its interface system, flight displays, and warning systems. This course will explore how humans interact with automated systems of varying complexities, what decision processes can be encountered in complex man-machine systems, and how automated systems can be designed to support both human strengths and weaknesses.

AVIA 5060 - Principles of Cabin Safety (3)

A survey of the relevant elements of cabin safety including food safety, passenger safety, material science, noise, air quality, aeromedical and security safeguards.

AVIA 5070 - Aviation Maintenance Safety (3)

A comprehensive review of error management in the Aviation Maintenance environment including creating a safe culture/just culture with a focus on practical aspects of human factors principles and error reduction techniques as applied to minimize error-inducing conditions.

AVIA 5080 - Air Traffic Control Error Management (3)

A survey of the human factor issues related to ATC error and techniques used to manage and prevent error. Includes a review of ATC specialist selection techniques and training, performance, workload, and equipment related issues.

AVIA 5100 - Airport Leadership - Administration and Planning (2)

The purpose of this course is to prepare students with foundational knowledge necessary for a job or career in airport management. This course will prepare students to pass the Certified Member (CM) exam administered by the American Association of Airport Executives (AAAE). Course may not be taken if student successfully completed CM certification. This course is co-listed with AVIA 4100. An additional fee is associated with this course.

AVIA 5101 - Airport Leadership - Operations and Communications (2)

The purpose of this course is to prepare students with foundational knowledge necessary for a job or career in airport management. This course will prepare students to pass the Certified Member (CM) exam administered by the American Association of Airport Executives (AAAE). Course may not be taken if student successfully completed CM certification. This course is co-listed with AVIA 4101. An additional fee is associated with this course.

AVIA 5300 - Airport Finance (3)

In-depth research and understanding of financial operations for commercial service and general aviation airports based on federal regulations, airport planning, fundamentals of airport budgeting, and financial reporting. An additional fee is associated with this course.

AVIA 5420 - Air Transportation (3)

Organization and administration of the air transportation industry with attention to airline regulations, rate and route structures, air cargo and freight, scheduled and nonscheduled operations, and contract air transport. This course is co-listed with AVIA 4420.

AVIA 5430 - Corporate Aviation Management (3)

Role, scope and purpose of business aviation. Managerial, administrative and financial business functions related to the use of business aviation aircraft. The course is co-listed with AVIA 4430.

AVIA 5500 - Aviation Systems Safety and Risk Management (3)

Provides background necessary to identify, analyze, and control hazards involved with the air transportation system.

AVIA 5510 - Aviation Safety Program Management (3)

Provides the student with prevention information and activities necessary to enable the graduate to perform effectively as an aviation safety program manager. An additional fee is associated with this course.

AVIA 5520 - Aircraft Accident Investigation (3)

Principles and procedures for investigating aircraft accidents to determine probable causes and to make recommendations which will prevent the reoccurrence of accidents and factors which led to them.

AVIA 5522 - Aircraft Accident Technical Analysis (4)

This course is a detailed evaluation of methods and procedures involved in an aircraft accident investigation. The organization, duties, and procedures of the Aircraft Accident Board are analyzed. The student explores procedures and techniques for determining accident causes through technical analysis.

AVIA 5530 - Principles of Aviation Accident Causation (3)

This class offers a survey of air carrier and general aviation incidents and accidents along with causation models and how barriers prevent accidents. The class will include a video colloquia of aviation accident and training videos to supplement textbook reading.

AVIA 5550 - Aviation Safety (3)

To develop a knowledge of contributing factors affecting aviation safety and fostering control methods and techniques to reduce accidents related to aircraft and the aviation field. This course is co-listed with AVIA 4500.

AVIA 5590 - Aviation Law (3)

Legal foundations and the federal and state regulatory functions which influence aviation and those who work in the industry. This course is co-listed with AVIA 4090.

AVIA 5600 - Human Dynamics in the Cabin (3)

A review of the aberrant or abusive behavior of passengers and cabin crew including stress of travel, on-board psychiatric emergencies, fear of flying, accident PTSD. An in-depth study of cabin crew selection, work stress, and psychological problems is provided.

AVIA 5605 - Psychological Human Factors (3)

A survey of relevant theoretical developments in the field of Aviation Psychology with a focus on disorders and syndromes among pilots, crew selection, organizational factors, occupational factors, stress response, training interventions, as well as the prevention of mental health problems among this occupational group.

AVIA 5610 - Physiological Human Factors (3)

A research based survey of aeromedical human factors including causes, symptoms, prevention and treatment of flight environment disorders. Altitude effects, spatial disorientation, body heat imbalance, visual anomalies and psychological factors are included as they relate to pilot performance and survival effectiveness. This course is co-listed with AVIA 4610.

AVIA 5615 - Human Error and Fatigue (3)

A survey of pilot performance and human errors in aircraft operations with a particular emphasis on fatigue, accountability, situational awareness, automation, and systems safety.

AVIA 5620 - Airmanship and Pilot Performance (3)

This course will enhance student learning and maintain a curriculum that is responsive to a dynamic profession. The course seeks to meet the educational needs of students and employers globally. The School of Aviation is committed to serving students in a positive, student-centered learning community that is responsive to emerging needs.

AVIA 5700 - Introduction to Unmanned Aircraft Systems (3)

Understand the basic components of Unmanned Aircraft Systems (UAS) and corresponding regulations affecting operations of UAS. Study existing applications of UAS as well as explore new applications and/or extending the flight and operational envelope of UAS. Prerequisite(s): AVIA 5705, AVIA 5710.

AVIA 5705 - Statistics, Economics, & Business Evaluation for Aviation (3)

Introduction and study of aviation terminology combined with coverage of principles of statistics, economics, accounting, finance, as applied to aviation scenarios. Analysis of aviation type operational and financial reports and interpretation of industry metrics. Development and evaluation of business cases for new projects.

AVIA 5710 - Aircraft Performance (3)

Study and application of aerodynamic principles such as with lift, drag, thrust, and weight to evaluate different aircraft phases of flight such as takeoff , climb, cruise, approach, holding, landing, and go arounds. Review of the different limitations applicable to each phase of flight and consideration of different ways to optimize fuel, time or payload. Study of the factors affecting low speed and high speed flight. Prerequisite(s): AVIA 5705

AVIA 5720 - Aircraft Design and Evaluation (3)

Study of aircraft design parameters and appreciation of their effects on flight. Interpret the summative effects of different aircraft configurations and

applicability to different aircraft missions. Definition of representative flight missions for evaluation. Evaluation of existing and proposed aircraft designs to determine suitability for the projected missions. Prerequisite(s): AVIA 5705 and AVIA 5710.

AVIA 5730 - Flight Data Strategic Utilization (3)

Introduction to "black box" flight data recorders, quick access recorders, and their capabilities. Interpretation and analysis of parameters as recorded by flight data recorders. Utilization of flight data for flight optimization of fuel, payload, and/or range. Pairing of flight data with other operator data to further optimize flight potential and operations. Prerequisite(s): AVIA 5705 and AVIA 5710.

AVIA 5740 - Innovation for Aeronautical Applications (3)

Introduction to innovation theory, practices, life cycle, and development processes. Study and recognition of incremental, radical and disruptive type innovations. Application of innovation in aeronautical scenarios and impact of modification and process changes on commercial and fuel savings and/or payload range delivery. Prerequisite(s): AVIA 5705, AVIA 5710 and AVIA 5720.

AVIA 5940 - Current Literature and Research (3)

Research methodology with emphasis on aviation research design, data interpretation and techniques of developing research proposals, and report writing.

BIOL 5005 - Graduate Seminar (1)

A course designed to prepare students for the development and presentation of scientific seminars. May be repeated for a maximum of 5 semester hours. Prerequisite(s): Accepted to the Biology graduate program.

BIOL 5006 - Contemporary Seminar Readings (1)

Studies of current and historical research and literature in various topics of biology. Topics include but are not limited to the following: ecology, paleobiology, pedology, plant physiology, animal physiology, plant biology, animal biology, systematic, molecular biology, animal ecology, plant ecology, population biology, microbiology, and morphology. May be repeated for a maximum of 4 semester hours.

BIOL 5008 - Grant Writing for Research Science (2)

Preparation to design, write and submit a science research grant proposal with introduction to the various funding agencies. Prerequisite(s): Acceptance to a graduate program.

BIOL 5011 - Special Topics in Biology (1-5)

Reading and analysis of the literature in a special area under the direction of a staff member. May be repeated for a maximum of 5 semester hours. Prerequisite(s): Accepted to the Biology graduate program and instructor consent.

BIOL 5012 - Special Projects in Biology (0-8)

Students as a group learn specialized, advanced biology content not available through normal course offerings. This course is co-listed with BIOL 4012. May be repeated for a maximum of 9 semester hours. Prerequisite(s): Instructor consent.

BIOL 5013 - Biometry (3: 2 lecture, 1 lab)

Multivariate hypothesis testing, experimental design, model construction, graphing, illustration, and analytical procedures. Specifically this includes applying multivariate parametric and non-parametric statistics. Prerequisite(s): BIOL 5113.

BIOL 5014 - Internship in Biology (1-9)

Practical experience working within the various components of the Biology discipline. Only 4 credit hours total may be used to satisfy approved biology electives. This course is co-listed with BIOL 4014. Prerequisite(s): Must be a major in Biology with at least 60 hours of credit.

BIOL 5015 - Technical Graphing and Data Illustration (1)

Advanced aspects of visual presentation of compressed information for biological research. Prerequisite(s): Acceptance to a graduate program.

BIOL 5016 - Statistical Software Application (1)

Advanced aspects of using contemporary statistical software in order to analyze data for biology research. Prerequisite(s): Acceptance to a graduate program.

BIOL 5017 - Quantitative Biology (3: 2 lecture, 1 lab)

Principles of the analysis and interpretation of multivariate quantitative biological data with an emphasis on data interpretation, graphing and illustration. Prerequisite(s): BIOL 5113.

BIOL 5031 - Biological Literature (2)

Introduction to the research literature of biology with emphasis on the organization of information for oral presentation, thesis, and publication. Prerequisite(s): Accepted to the Biology graduate program.

BIOL 5032 - History of Biology (2)

An examination of the historical development and refinement of concepts in the major subdisciplines of biology, and of the integration of these concepts into the present disciplinary framework.

BIOL 5102 - Evolution (3)

Lecture and discussion of current and historical evolutionary theory. The process of scientific investigation will be contrasted with non-scientific methods. This course is co-listed with BIOL 4102. Prerequisite(s): BIOL 1110 or EASC 1004.

BIOL 5113 - Biostatistics (3)

Covers the conceptualization, implementation, analysis, and communication of research in biology. This course is co-listed with BIOL 4013. Prerequisite(s): Admission to Biology graduate program.

BIOL 5210 - Ichthyology (3)

A thorough examination of the biology of fish with special emphasis on the fish of Missouri. Students will be expected to develop a detailed knowledge of the literature on ichthyology. This course is co-listed with BIOL 4210. Prerequisite(s): Accepted to the Biology Graduate program or consent of instructor. An additional fee is associated with this course.

BIOL 5210L - Ichthyology Lab (1: 1 lab)

A thorough examination of the biology of fish with special emphasis on the fishes of Missouri. Students will learn/understand the taxonomy, ecology, evolutionary history, and geographic distribution of fishes. Students will learn fish identification and field techniques used for specimen collecting. This course is co-listed with BIOL 4210L. Prerequisite(s): Accepted to the Biology Graduate program or consent of instructor. Corequisite(s): BIOL 5210.

BIOL 5216 - Animal Behavior (3)

The objective of this course is to provide you with an overview of the evolutionary and mechanistic approaches to understanding how and why animals behave the way they do. As well as providing examples of how behavioral patterns contribute to an animal's chances of survival and reproductive success, this course will provide a window into the various levels of analysis that researchers use to explain the often complex ways animals behave. After taking this course, you will appreciate the importance of animal behavior in ecology and evolution, the proximate and ultimate drivers of behavior, and the approaches researchers use to generate this knowledge. This course is co-listed with BIOL 4216. Prerequisite(s): Acceptance into BIOL MS program or instructor consent. Spring.

BIOL 5221 - Mammalogy (2)

A thorough examination of the Class Mammalia, including evolution, systematics, form, function, and ecology. Students will be expected to develop a detailed knowledge of the history and literature in the field of mammalogy. This course is co-listed with BIOL 4221. Prerequisite(s): Accepted to the Biology Graduate program or consent of instructor. An additional fee is associated with this course.

BIOL 5221L - Mammalogy Lab (2: 2 lab)

A thorough examination of the Class Mammalia with special emphasis on the mammals of Missouri. This laboratory provides hands-on experience in mammal identification and reinforces concepts taught in BIOL 5221 by addressing the taxonomy, ecology, and geographic distribution of mammals in Missouri. This course is co-listed with BIOL 4221L. Prerequisite(s): Accepted to the Biology Graduate program or consent of instructor. Corequisite(s): BIOL 5221.

BIOL 5223 - Ornithology (2)

An examination of the ecology, evolution, behavior, and physiology of birds. This course is co-listed with BIOL 4223. Prerequisite(s): Accepted to the Biology Graduate program or consent of instructor. An additional fee is associated with this course.

BIOL 5223L - Ornithology Lab (2: 2 lab)

An examination of the ecology and biology of birds with special emphasis on the field study of locally occurring species. This course reinforces concepts taught in BIOL 5223. This course is co-listed with BIOL 4223L. Prerequisite(s): Accepted to the Biology Graduate program or consent of instructor. Corequisite(s): BIOL 5223.

BIOL 5232 - Herpetology (2)

A thorough examination of the classes Amphibia and Reptilia, including systematics, evolution and ecology of these groups with special attention to identification of local forms. This course is co-listed with BIOL 4232. Prerequisite(s): Accepted to the Biology Graduate program or consent of instructor. An additional fee is associated with this course.

BIOL 5232L - Herpetology Lab (2: 2 lab)

A thorough examination of the classes Amphibia and Reptilia, including systematics, evolution, and ecology of these groups with special attention to identification of local forms. This course provides hands-on experience with anatomical and morphological characters of native amphibian and reptile species of Missouri, as well as standard capture/trap methods, and standard survey/monitoring techniques. This course is co-listed with BIOL 4232L. Prerequisite(s): Accepted to the Biology Graduate program or consent of instructor. Corequisite(s): BIOL 5232.

BIOL 5311 - Parasitology (4: 2 lecture, 2 lab)

Animal parasites, with emphasis on identification, morphology, biology, life histories, and host-parasite relationships. This course is co-listed with BIOL 4311. Prerequisite(s): Accepted to the Biology Graduate program or consent of instructor. An additional fee is associated with this course.

BIOL 5312 - Entomology (2)

An introduction to the systematics, morphology, physiology, evolution, and ecology of insects. This course is co-listed with BIOL 4312. Prerequisite(s): Accepted to the Biology Graduate program or consent of instructor. An additional fee is associated with this course.

BIOL 5312L - Entomology Lab (2: 2 lab)

An introduction to the systematics, morphology, evolution, and ecology of insects. This laboratory provides hands-on experience capturing, trapping, curating, and identifying insect specimens. This course reinforces concepts taught in BIOL 5312. This course is co-listed with BIOL 4312L. Prerequisite(s): Accepted to the Biology Graduate program or consent of instructor. Corequisite(s): BIOL 5312.

BIOL 5400 - Endocrinology (2)

Examination of the physiology of endocrine glands and the roles of each hormone in the regulation of growth, metabolism, and reproduction. Examples will be selected from humans and domestic species. This course is co-listed with BIOL 4400. Prerequisite(s): BIOL 3431.

BIOL 5411 - Plant Physiology (4: 2 lecture, 2 lab)

Life processes occurring in plants, the factors affecting these processes, their measurement, and the significance of these processes to the growth of the plant. This course is co-listed with BIOL 4411. Prerequisite(s): BIOL 1110; and BIOL 1111 or AGRI 1600; and CHEM 1104 or CHEM 1131. An additional fee is associated with this course.

BIOL 5412 - Wildlife Diseases (4: 3 lecture, 1 lab)

Introduction to causes and mechanisms of wildlife diseases including the pathobiology of the disease, zoonosis, and the wide range of pathogens and diseases impacting the different classes of animals. Discussion on the significance of disease on populations, domestic/wildlife/human interface, and the implications on conservation and management. This course offers hands on training in microbiology fundamentals, necropsy, disease detection, field sampling and diagnostic testing. This course is co-listed with BIOL 4412. Prerequisite(s): BIOL 1110 and BIOL 1112 An additional fee is associated with this course.

BIOL 5514 - Molecular Biology (3)

Emphasizes how biological molecules interact to express cellular phenotypes. Transcriptional and translational controls of gene expression and the latest biotechnological advances are discussed. This course is co-listed with BIOL 4514. Prerequisite(s): BIOL 3511 and CHEM 1132.

BIOL 5515 - Molecular Technology (3: 2 lecture, 1 lab)

Emphasizes the proper use of laboratory equipment, molecular techniques, experimental design, and data analysis. Questions and experiments encountered in molecular biology are addressed. This course is co-listed with BIOL 4515. Prerequisite(s): BIOL 3511 and CHEM 1132. An additional fee is associated with this course.

BIOL 5516 - Hematology/Virology (3)

The study of blood and viruses. Topics include hematopoiesis, coagulation, viral replication, host responses to viruses, and normal and diseased host responses. This course is co-listed with BIOL 4516. Prerequisite(s): BIOL 2511 and BIOL 2512.

BIOL 5517 - Serology Laboratory (1)

A combined immunology, hematology, and virology laboratory emphasizing cellular components and identification and differentiation by technological methodologies. This course is co-listed with BIOL 4517. Prerequisite(s): BIOL 3213 or BIOL 3414 or BIOL 3611 or BIOL 5311. An additional fee is associated with this course.

BIOL 5614 - Bioterrorism (2)

Examination of biological terrorism including agricultural, industrial, and microbiological threats. Prerequisite(s): BIOL 1110 or instructor consent.

BIOL 5709 - Plant Ecology (4: 2 lecture, 2 lab)

Concepts and methods pertaining to the collection and analysis of ecological data. Fundamental principles of interactions between plants and their environment will be addressed. This course is co-listed with BIOL 4709. Prerequisite(s): BIOL 1111; BIOL 2020; BIOL 3709 or 3711.

BIOL 5710 - Freshwater Biology (4)

Ecology and biology of aquatic species, populations, communities, and ecosystems will be emphasized. Both lentic and lotic habitats will be examined. Field trips at additional expense to the student are part of this course. Prerequisite(s): BIOL 2020. An additional fee is associated with this course.

BIOL 5711 - Animal Ecology (3)

Ecological principles and concepts pertaining to populations, communities, and ecosystems with special emphasis on animals. This course is co-listed with BIOL 4711. Prerequisite(s): Accepted to the Biology Graduate program or consent of instructor. An additional fee is associated with this course.

BIOL 5711L - Animal Ecology Lab (1: 1 lab)

Ecological principles and concepts pertaining to populations, communities, and ecosystems with special emphasis on animals. Both field work with local examples and laboratory work are part of this course. This course reinforces concepts taught in BIOL 5711. This course is co-listed with BIOL 4711L. Prerequisite(s): Accepted to the Biology Graduate program or consent of instructor. Corequisite(s): BIOL 5711.

BIOL 5720 - Biogeography (2)

The ecological and historical basis for the distribution and abundance of species including changes in distribution and abundance over time. Prerequisite(s):

Introductory ecology course and animal or plant biology course and instructor consent.

BIOL 5722 - Conservation Biology (3)

This is a synthetic course applying the multidisciplinary approaches of ecology, biogeography, evolution, genetics and economics to the global biodiversity crisis. This course is co-listed with BIOL 4722. Prerequisite(s): BIOL 1110 and BIOL 2020.

BIOL 5919 - Wildlife Policy and Law (3)

Introduction to the principles of wildlife policy and law in North America. This course will survey the history of wildlife law in the U.S. and examine the evolution of wildlife law by examining specific legislation. It will also familiarize students with ecosystem and wildlife issues that shape wildlife law, as well as public attitudes toward the value of ecosystems and wildlife. Research and discussion format. This course is co-listed with BIOL 4919. Prerequisite(s): BIOL 2020 or (CJ 1000 and BIOL 1003) or (CJ 1000 and BIOL 1005).

BIOL 5950 - Graduate Teaching Internship (2)

Under direct supervision, student will prepare, supervise, and assess laboratory/lecture activities in Biology and Earth Science. May be repeated for a maximum of 4 semester hours. Prerequisite(s): Acceptance to a graduate program in Biology.

BIOL 5951 - Master's Thesis (2)

Graduate research taken to thesis level. Required for the completion of the Biology MS degree Plan A. May be repeated for credit. Prerequisite(s): Consent of the student's graduate committee.

BIOL 5952 - Graduate Research (2-4)

Graduate research required for the completion of the Biology MS degree and the Environmental Studies MA degree. May be repeated for credit. Prerequisite(s): Consent of the student's graduate committee

BIOL 5953 - Ecology Field Course (1-6)

Advanced field methods and analysis of the physical, chemical, and ecological aspects of diverse ecosystems. On a rotating basis, the field course may focus on marine, northern temperate woods, and alpine systems. May be repeated for credit as topics vary. Prerequisite(s): Instructor consent.

BIOL 5954 - Contemporary Topics in Biology (1-4)

Contemporary topics and issues of topical themes that warrants course instruction. May be repeated for credit as topics vary. Prerequisite(s): Instructor consent.

BIOL 5955 - Graduate Research 1 (2)

This course develops the skills needed to prepare a thesis research prospectus or a literature paper review. It should be taken during the first semester of a student's graduate program. Prerequisite(s): Admitted to the Biology MS program.

BIOL 5956 - Graduate Research 2 (2)

Enhanced graduate research skills and methods required for the completion of the Biology MS degree. This advanced course enhances the skills needed to prepare the thesis (Plan A) or the final project literature paper review (Plan B). Should be taken the second semester of the student's graduate program. Prerequisite(s): BIOL 5955.

BADM 5400 - MBA Knowledge Foundations (.5-3)

Foundations is a suite of online modules designed to ensure all students have a set of foundational skills necessary to be successful in the MBA program. Each foundation module includes rich online multimedia instructional material to help students gain proficiency in critical skills areas including: accounting, finance, economics, quantitative operations, probability and statistics. After reviewing the instructional material for each module, students take a module assessment to demonstrate competency in the module area. Prerequisite(s): Admission to the MBA Program. Online

BADM 6400 - International Business Study Abroad (1-3)

Students will critically examine and experience the elements of international business. Students will compare and contrast the differences between a business operating on US soil and a company that operates outside of the US, and evaluate the implications of operating a business internationally. Special consideration will be given to understanding differing cultures, customer segments, and laws associated with business operations. This course is designed to help students apply related concepts through experiential learning. Application of textbook concepts may occur through participation in guest lectures, activities, assignments, and interactions with employees while abroad. Prerequisite(s): Approval by the graduate adviser.

BADM 6410 - Readings in Healthcare Administration (1-3)

Advanced course in healthcare administration theory, practice, methods and strategies taught on an individual basis to graduate students pursuing an MBA with Healthcare Administration concentration. Prerequisite(s): Admission to MBA program; Approval by Graduate Adviser. Online

BADM 6420 - Healthcare Business Foundations (3)

Foundational course in healthcare business administration theory, practice, methods and strategies. Prerequisite(s): Admission to the MBA program and BADM 5400. CSC, Online

BADM 6430 - Graduate Internship in Healthcare Administration (1-3)

Opportunity for students to gain theoretical knowledge and practical application within a particular field of specialization. Employment must be above entry level position. Prerequisite(s): Admission to the MBA program.

BLAW 5700 - Legal Aspects of Business Decisions (3)

Analytical course that will provide students with a framework for making legal and ethical decisions in business. As a foundation for the course, students will learn traditional philosophical approaches to ethical decision making, as well as modern approaches to identifying and analyzing ethical and legal dilemmas in business. Students will also discuss barriers to making legal and ethical decisions. The course will consider common legal and ethical dilemmas in business. In each area, students will learn to identify, analyze, and resolve both the ethical and legal issues, while avoiding barriers to making appropriate decisions.

BLAW 5710 - Law and Ethics in Healthcare (3)

Presents an overview of legal and ethical issues facing managers and providers in health care. It provides students with a foundation of health law and ethics and reviews a wide variety of health care legal and ethical situations and dilemmas. The goals are to provide students with practical knowledge of health laws and ethics and their application in the real world of health care. Students will examine many management ideas, theories and applications of health care law and ethics, and develop a working knowledge of pertinent law and ethical procedures and how to apply them in the health care arena.

BLAW 5740 - Employment Law (3)

Current analysis of legal issues in the workplace relating to the employment process. Focus covers a broad spectrum, including Title VII/Equal Employment Opportunity, Fair Labor Standards Act, OSHA, ERISA and labor law. Policy issues involving discrimination, affirmative action and sexual harassment will be covered, as well as applied topics such as the legality of the hiring process. This course is co-listed with BLAW 4740. Prerequisite(s): BLAW 2720.

BTE 5023 - Business, Journalism, & Marketing Internship (1-3)

Faculty supervised participation in Journalism, Business, or Marketing related pre-professional or professional activities. This course is co-listed with BTE 4023. May be repeated for a maximum of 6 semester hours. Fall, Spring, Summer.

BTE 5210 - Methods of Teaching Business and Marketing Education (3)

Prepares student as teachers of business education by assisting in the development of instructional methods and techniques for student-oriented

classroom instruction. This course is co-listed with BTE 4210. This is a professional education course.

BTE 5241 - Coordination of Cooperative Education Programs (3)

Organizing and implementing cooperative career and technical education programs. This course is co-listed with BTE 4241. This is a professional education course.

BTE 5260 - Special Topics in Business Teacher Education (1-3)

Topics will be listed in appropriate course schedules. May be used to teach specific microcomputer software or to cover other critical topics in business education as new technologies develop. This course is co-listed with BTE 4260.

BTE 5280 - Implementing Business and Marketing Education Programs (3)

Addresses information needed to design, implement, and maintain vocational career and technology education programs, and lab management and resources. This course is co-listed with BTE 4280. This is a professional education course.

BTE 5510 - Desktop Publishing for Business, Journalism, & Marketing (3)

Theory and practice of informational packaging, including business desktop publishing concepts utilizing editing software to make shareable designs and videos. Using current industry trends and preferred practices for publication design, students will learn production editing and concepts that utilize basic to intermediate design principles for creating comprehensive document layouts with polished professional-looking images. This course is co-listed with BTE 4510.

BTE 5550 - Publishing Applications for Business, Journalism, & Marketing (3)

Students will receive practical experience creating content in business publishing using application tools and production fundamentals for print or web-ready documents and pages. Explores effective techniques and principles necessary to produce engaging information packaging. This course is co-listed with BTE 4550.

BTE 5560 - Emerging Technologies for Business, Journalism, & Marketing (3)

Students will explore current and emerging technologies that focus on information management, dynamic communication, and collaboration in print and digital environments. Students will develop effective, strategy-based information packaging skills to produce and publish print and web-ready documents and pages. This course is co-listed with BTE 4560.

CTE 5000 - Special Projects in Career and Technical Education (1-6)

Investigation of contemporary problems and issues in career and technology education by selected individuals or groups. May be repeated. Prerequisite(s): written contract/proposal with objectives and written school consent.

CTE 5010 - CTTE 1 - Curriculum & Assessment (3)

Introduce new CTE teachers to the developmental characteristics of students, curriculum mapping developing a scope sequence, and the role of CTE in public schools, including the mission of CTE. In addition, an introduction on using formative and summative assessments, along with becoming familiar with district policies and grading procedures will be presented. This course is co-listed with CTE 4100.

CTE 5015 - New Teacher Institute (3)

Develop teaching/instructional management skills needed to perform effectively in classrooms/laboratories. Includes structured activities designed to assist beginning vocational-technical teachers during their first teaching years. This course is co-listed with CTE 4140.

CTE 5020 - CTTE 2 - Curriculum & Methods (1)

Familiarize new CTE teachers with techniques for motivating students to learn. Instructional methods

and strategies will be explored including reinforcing effort and providing recognition. Teachers will continue work on curriculum mapping along with developing unit and lesson plans. This course is co-listed with CTE 4120. Prerequisite(s): CTE 5010. Corequisite(s): CTE 5030. Sometimes offered as hybrid. Spring.

CTE 5022 - Teaching/Administration Intern (1-3)

Provides a mentored administration/teaching experience at the secondary/post-secondary level. Evaluation by on-site mentor and Internship Coordinator. This course is co-listed with CTE 4022. May be repeated for a maximum of 6 semester hours. Prerequisite(s): CTE 5145, CTE 5260, and consent of the school chair. This is a professional education course.

CTE 5030 - CTTE 3 - Curriculum, Methods, & Planning (2)

New CTE teachers will learn instructional planning techniques including lesson planning, unit planning, and the continuation of curriculum mapping. Teachers will work on instructional methods such as identifying similarities and differences, nonlinguistic representation, identifying learning styles, and cooperative learning. This course is co-listed with CTE 4130. Prerequisite(s): CTE 5010. Corequisite(s): CTE 5020. Sometimes offered as hybrid. Spring.

CTE 5100 - Leadership Theory in Career & Technical Education (3)

Critically examines important leadership and team development theories and constructs and their application in industry training and career & technical education contexts. Considerable attention will be paid to the study of leadership effectiveness through the lens of organizational dynamics and interpersonal relations.

CTE 5110 - Foundations of Career and Technical Education (3)

Synthesizes Career and Technical Education's history, past and current issues, legislation, and philosophical foundations. This course is co-listed with CTE 4110. This is a professional education course.

CTE 5140 - Organization and Administration of Career & Technical Education (3)

Organizing and administering various types of career & technical schools and classes. Federal laws, state administration and local practices will be considered. This is a professional education course.

CTE 5145 - Curriculum & Literacy Development in CTE (3)

Assist new in-service and pre-service educators in selecting, organizing, and delivering course content, including federal and state guidelines, and literacy development, for career and technology education courses and programs. This course is co-listed with CTE 4145. This is a professional education course.

CTE 5150 - Introduction to Career Administration (3)

Role, responsibilities, and activities associated with the administration of secondary and post-secondary vocational programs. This is a professional education course.

CTE 5210 - CTTE 4- Current Topics in CTE Leadership (2)

Provides advanced-level, just-in-time content for CTE teachers in curriculum, assessment, and special needs. Topics will include advanced instruction (and require reflection and evaluation) in Missouri Learning Standards, academic integration, and 21st Century skills. Prerequisite(s): CTE 5030. Corequisite(s): CTE 5220. Sometimes offered as hybrid. Fall.

CTE 5220 - CTTE 5- Management, Guidance, & Special Needs Leadership (2)

New CTE teachers will learn to design, reflect upon, and evaluate interventions and consequences for problem behaviors in the CTE classrooms and to adjust lessons to accommodate special needs learners and evaluate those accommodations. They will learn analyze the differences between accommodations and modifications for students with special needs and how to communicate program requirements and skills for IEP development. Vocational guidance concepts will also be introduced in this course. Prerequisite(s): CTE 5030.

Corequisite(s): CTE 5210. Sometimes offered as hybrid. Fall.

CTE 5230 - CTTE 6- Work and Project Based Learning Leadership (2)

CTE teachers will learn to design and evaluate high quality projects using project based learning. They will explore, select, reflect upon, and evaluate student resources for career and college preparedness while creating their for professional teaching portfolios to meet vocational guidance competencies. Prerequisite(s): CTE 5220. Corequisite(s): CTE 5240. Sometimes offered as hybrid. Spring.

CTE 5240 - CTTE 7- College and Career Readiness Leadership (2)

In this final course, CTE teachers will evaluate and revise their curriculum maps, present professional teaching portfolios, finalize a college and career readiness project (vocational guidance expectations), and reflect upon/evaluate their CTTE program. Prerequisite(s): CTE 5220. Corequisite(s): CTE 5230. Sometimes offered as hybrid. Spring.

CTE 5245 - Vocational Guidance (3)

Facilitate awareness and ability in vocational guidance. Includes problems, methods, and procedures for assisting individuals in choosing, preparing for, entering, and progressing in their vocation. This course is co-listed with CTE 4150.

CTE 5260 - Methods of Teaching Career and Technical Education (3)

Principles and techniques of presenting information, giving demonstrations, and facilitating student learning including managing the learning environment. This course is co-listed with CTE 4160. Prerequisite(s): CTE 5145 or school chair consent. This is a professional education course.

CTE 5265 - Performance Assessment in Career and Technical Education (3)

Designed to assist CTE educators and administrators in critiquing, planning, developing, implementing, evaluating, and improving student performance assessments in the cognitive, affective, and psychomotor domains. This course is co-listed with CTE 4165. Prerequisite(s): Instructor consent. This is a professional education course.

CTE 5270 - Trends in Teaching Methods (3)

Investigation of contemporary problems and issues in Career and Technology Education by selected individuals or groups. Prerequisite(s): Instructor consent.

CTE 5280 - Adult Education and Training (3)

Principles, objectives, philosophies, organization, administration, and supervision of adult education and training programs within career and technical education and/or industry teaching and learning environments. This course is co-listed with CTE 4180.

CTE 5410 - Assessment and Program Evaluation in Higher Education (3)

Assessment and program evaluation models/techniques designed to address college environments, students' needs, developmental levels, and learning outcomes, as well as organization and program effectiveness.

CTE 5430 - Diverse Student Populations & The College Experience (3)

The interplay between social justice, inclusive campus environments, and diverse college student populations in contemporary society.

CTE 5610 - The Community College (3)

History, development, and current concerns of the junior/community college.

CTE 5620 - Enrollment Management Theory and Practice (3)

Principles and practices of enrollment management focusing on the core functions of marketing, recruitment, retention, service and enrollment manager role in the college setting.

CTE 5630 - Diversity and Inclusion in Higher Education (3)

This course critically examines important leadership, organizational, and social constructs that help develop an understanding of the multiple dimensions of diversity, and the importance and need for embracing as an educational leader in a higher education context.

CTE 5640 - Foundations of Academic Advising (3)

This course critically examines the foundations of academic advising essential components of student success and retention in higher education. Topics include development advising; research on academic advising; models and delivery systems; advising skills, including diverse populations; and an introduction to assessment of advising programs.

CTE 5650 - Preparation for the Professoriate (3)

This course provides an overview of post-secondary education for faculty members. This includes faculty life and roles (teaching, scholarship, and service), the history of higher education, higher education legal issues, student life/services, and higher education governance and finance. Fall.

CTE 5660 - Teaching Methods in Post-Secondary Education (3)

This class analyzes the principles and techniques of presenting information in a post-secondary environment and facilitating adult student learning. Spring.

CTE 5900 - Introduction to Research Methods (3)

Research methodology with emphasis on research design, data interpretation and techniques of developing research proposals, and report writing. This is a professional education course.

CTE 5910 - Qualitative Research (3)

Provides an introduction to qualitative research concepts, theories, and methods. Students will experience and practice a variety of qualitative applied research techniques designed to enhance learning. The primary techniques of the case study, interviews, observation, and document analysis will be the primary skills developed. Students will also consider strategies for validity and reliability, and the relevance of standard evaluative criteria such as objectivity, neutrality, and generalizability. Prerequisite(s): CTE 5900 or graduate level research methods course.

CTE 5920 - Action Research (3)

Provides educators, administrators, and business/community leaders a method to study localized problems that results in solutions and action plans to address these issues. Students will learn how to develop an action research project to inform decisions. Prerequisite(s): CTE 5900 or graduate level research methods course.

CTE 6020 - Curriculum Development Theory in Career and Technical Education (3)

Assists the classroom teacher, administrator, or industry trainer in developing curriculum from a global perspective. Includes curriculum planning and creating, and evaluating curriculum models. This is a professional education course.

CTE 6060 - Legal Issues in Career and Technical Education (3)

Current and existing legislation which form the statutory basis of school law affecting career and technical education through a study of case law. This is a professional education course.

CTE 6070 - Financing and Funding Career and Technical Education (3)

Analyze and develop a financial plan for obtaining, managing and administering career and technical education resources. This is a professional education course.

CTE 6090 - Data Analysis for Career & Technical Education (3)

This course examines multiple sources of data specific to Career & Technical Education. Students will research, collect, analyze, and present CTE related data to help make informed decisions regarding school and program improvement. Data

including curriculum, instruction, assessment, budgeting, student demographics, CCQI, and working with stakeholders will be included. Prerequisite(s): CTE 5150. This is a professional education course.

CTE 6100 - Quantitative Analysis and Interpretation (3)

Students are expected to analyze and draw meaning from the fundamental concepts and procedures of descriptive and inferential statistics, develop the skills for conducting basic statistical analyses, interpret statistical results reported in quantitative research studies, and analyze and utilize data for decision-making. In addition, students are expected to master the fundamental skills needed to use the Statistical Package for the Social Sciences (SPSS) program to analyze data. Prerequisite(s): CTE 5900 or LIS 5900 or COUN 5810.

CTE 6120 - Current Issues and Topics in Career & Technical Education & Training (3)

A seminar type course dealing with philosophy, new issues and recent literature, and research in the field. May be repeated for a maximum of 6 semester hours. This is a professional education course.

CTE 6130 - Special Investigations in Technology and Occupational Education (2-3)

Advanced and specialized problems in technology and occupational education selected with consent of faculty advisers and graduate committees. May be repeated for a maximum of 8 semester hours. Prerequisite(s): Written contract/proposal with objectives and written school consent.

CTE 6900 - Proposing Scientific Research (2-3)

Deals with both the theoretical and practical aspects of designing research and successfully defending the design. The purpose of the course is to assist students through the proposal and writing of scientific research relevant to educational and industry training research. May be repeated for a maximum of 6 semester hours. Prerequisite(s): CTE 5900, CTE 5910, or CTE 5920 or graduate level research methods course.

CTE 6990 - Thesis (2-3)

Special investigation of an approved problem resulting in a formal thesis. May be repeated for a maximum of 6 semester hours. Prerequisite(s): CTE 5900, EDFL 5900, LIS 5900 or instructor consent.

CHEM 5010 - Modern Chemical Theories and Practices (3-5)

For secondary and primary teachers. Content varies but typically covers aspects of the main chemistry subdivisions, modern teaching methods in chemistry or current technological procedures. Prerequisite(s): CHEM 1132 and instructor consent.

CHEM 5990 - Thesis (3)

Independent research and study connected with preparation of thesis. Prerequisite(s): An officially appointed thesis committee.

CSPA 5000 - Special Topics in Student Affairs (1-3)

Individual or group study of selected problems/issues within the student affairs administration field. May be repeated for a maximum of 6 semester hours.

CSPA 5110 - Introduction to Student Affairs Administration (3)

Organization and administration of student personnel services in higher education.

CSPA 5120 - Helping Skills for Student Affairs Administrators (3)

The application of helping skills models to student affairs settings. Emphasis will be on live practice and application of content to interactions with college students. Prerequisite(s): Admission to the CSPA program or program coordinator/school chair consent.

CSPA 5130 - Leadership and Organizational Theory in Higher Education (3)

Critical examination of leadership, organizational, and team development theories and their application to

higher education contexts through the lens of organizational dynamics and interpersonal relations.

CSPA 5210 - Student Development Theory I (3)

In-depth exploration of major theoretical models and their application. This is the first of two courses in developmental theory for the College Student Personnel Administration Program. Prerequisite(s): CSPA 5110 or program coordinator consent.

CSPA 5220 - History of Higher Education (3)

History of higher education and student affairs administration in America. Focus on development of policies, practices, and culture of colleges and universities.

CSPA 5310 - Student Development Theory II (3)

In-depth exploration of major theoretical models and their application. This is the second of two courses in developmental theory for the College Student Personnel Administration Program. Prerequisite(s): CSPA 5110 or consent of program coordinator.

CSPA 5320 - The Law in Higher Education (3)

Sensitizes students to a variety of legal issues in higher education and creates an awareness of areas within the student personnel field where potential litigation could result.

CSPA 5330 - Governance and Finance in Higher Education (3)

Introduction to the entities involved in campus governance on a college campus. Focus on the budget process and dilemmas that colleges and universities face. Prerequisite(s): CSPA 5110 or consent of Program Coordinator.

CSPA 5500 - Seminar in Higher Education (3)

An overview and critical analysis of issues and concerns common to higher education institutions. Prerequisite(s): CSPA 5110 or consent of Program Coordinator.

CSPA 5700 - Practicum in Student Affairs Administration (1, 2, 3)

A supervised work experience in college student personnel. May be repeated with no more than 2 semester hours in a single student personnel functional area for a maximum of 8 semester hours. Prerequisite(s): Instructor consent.

CSPA 5910 - College Curriculum & Assessment (3)

This course provides a study of procedures for designing, implementing, and evaluating higher education assessment methods and curriculum. Spring.

CSPA 5980 - Internship in Student Affairs (1-3)

Direct work experience in a student affairs functional area. May be repeated for credit. Three credits are required for graduation from the program. Prerequisite(s): Instructor consent.

COMM 5000 - Introduction to Graduate Studies (1)

Introduction to graduate school, including bibliographical resources and professional writing in the field communication.

COMM 5100 - Podcasting and Radio Production (3)

Students will receive practical experience in radio station management and in production of radio content, including live radio shows, live remotes, PSAs, and podcasts. The history, development and future of the radio industry will also be explored. This course is co-listed with COMM 4100. Fall.

COMM 5110 - Motion Graphics and Effects (3)

Students apply theories of composition, color, typography, and design to dynamic graphics for film and broadcast including keyframe animation, kinetic type, compositing, and video effects. This course is co-listed with COMM 4120. Fall.

COMM 5140 - Audio for Digital Cinema (3)

Students learn sound acquisition on a film set, post-production for sound, Foley effects, and sweetening as they produce the sound design for short films. This course is co-listed with COMM 4130. Fall

COMM 5160 - Advanced Sports Broadcasting (3)

This course provides students advanced experience in sports television broadcasting. Students will gain experience in preproduction, producing, directing, announcing, graphics development and camera operation. This course is co-listed with COMM 4160. Prerequisite(s): Instructor consent. Spring.

COMM 5200 - Special Topics in Mass Media (1-9)

Departmentally selected topics of contemporary interest in mass media or specialized areas of the media; variable content. This course is co-listed with COMM 4200. May be repeated for a maximum of 9 semester hours (only 6 hours will apply to the major).

COMM 5230 - Seminar in Mass Media (3)

Studies in a specialized area of mass media with emphasis on individual research. May be repeated for a maximum of 6 semester hours.

COMM 5235 - Media Promotions (3)

Students will learn to effectively use promotional techniques for radio and television and will learn tactics for using social media, blogs, web videos, stories and other promotional tools by studying the history and practice of content marketing, branded entertainment, gamification, and transmedia storytelling. This course is co-listed with COMM 4235.

COMM 5240 - Media Management (3)

Students will gain an understanding of the principles and issues of managing contemporary media organizations. The course focuses on the challenges and opportunities of management and familiarizes students with management level problem-solving tools and techniques, especially as they apply to media entities. This course is co-listed with COMM 4240.

COMM 5250 - Advanced Issues in Communication Law (3)

Examination of the principles of law to the mass media, media and advertising practices, and freedom of information.

COMM 5251 - Digital Media Law, Ethics and Diversity (3)

This course introduces students to the various bodies of law that regulate the media industry, applies the law to the work of journalists and producers of digital media, and examines ethical issues in the field of digital media production. This course is co-listed with COMM 4250. Fall, Spring.

COMM 5271 - Family Communication (3)

Integrates theories, models, and research on how humans exchange information in families; explores the changing nature of the family; and examines how families influence subsequent interpersonal behaviors. This course is co-listed with COMM 4270.

COMM 5281 - Mass Media and Society (3)

Critical examination of the interaction between audiences and media. This course is co-listed with COMM 4280.

COMM 5285 - Women and Minorities in Media (3)

The study of women and minorities, their contributions and images, in a variety of media. This course is co-listed with COMM 4285. Prerequisite(s): COMM 1200 or COMM 3010.

COMM 5290 - Special Projects in Mass Communication (1-3)

Individual study/research in mass communication. This course is co-listed with COMM 4290. May be repeated for a maximum of 3 semester hours. Prerequisite(s): Written consent.

COMM 5300 - Seminar in Speech Communication (2-3)

A presentation of topics not included in the regular offering of the school. May be repeated for a maximum of 6 semester hours.

COMM 5301 - Special Projects in Speech Communication (1-3)

This course is co-listed with COMM 4300. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Consent.

COMM 5320 - Influence in Society (3)

Students will examine the role of attitudes and persuasive theories to critically analyze influence occurring in society; including face to face, media, and social media settings. Students will also create a persuasive campaign to enhance their critical thinking and practical communication skills. This course is co-listed with COMM 4320.

COMM 5330 - Group Communication (3)

Principles of communication within small and large groups emphasizing educational, business, social, and therapeutic group functions with readings, discussions, and research.

COMM 5331 - Theories of Interpersonal Communication (3)

An in-depth study of selected theories and supporting research findings of the communication process as it occurs in informal face-to-face situations. This course is co-listed with COMM 4330. Prerequisite(s): COMM 3010.

COMM 5333 - Social Media Strategies (3)

Students will practice writing and creating content for diverse social media platforms with a focus on ethically engaging audiences, promoting messages through strategic campaigns, and optimizing media content to suit the unique capabilities of different social media channels. Fall.

COMM 5335 - Gender Communication (3)

Gender as it influences communication processes in intrapersonal, interpersonal, group, public and mediated contexts. This course is co-listed with COMM 4335. Prerequisite(s): COMM 3010.

COMM 5340 - Rhetorical Analysis and Society (3)

An examination of the Foundations and development of rhetorical theory with an emphasis on rhetorical criticism research. This course is co-listed with COMM 4340.

COMM 5370 - Special Topics in Communication (1-3)

The study of subjects not included in school's regular offering. This course is co-listed with COMM 4370. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Consent.

COMM 5390 - Contemporary Communication (3)

Public address as it functions in contemporary society in a variety of traditional and mass media settings. This course is co-listed with COMM 4390.

COMM 5412 - Narrative Production (3)

Students study the process, vocabulary, and advanced production techniques of motion picture storytelling to develop and produce short fiction films. This course is co-listed with COMM 4412. Prerequisite(s): COMM 3050 and COMM 3450 or Instructor consent.

COMM 5435 - Advanced Multicam Production (3)

This class provides students with an advanced experience in sports television broadcasting, as well as the techniques and skills of producing a studio television show, including producing, writing, reporting, and editing. This course is co-listed with COMM 4435. Prerequisite(s): COMM 3475 or COMM 3561 or Instructor consent.

COMM 5500 - History of the American Press (3)

Development of the American press from colonial days to modern times; factors affecting the shape and contents of the press in contemporary society. This course is co-listed with COMM 4500.

COMM 5510 - Magazine Design and Production (3)

The magazine process from the collection of raw material through layout and design to the circulation of the finished product. This course is co-listed with COMM 4510. Prerequisite(s): COMM 1520, 2620 and COMM 2530.

COMM 5535 - Contemporary Journalism Production (3)

Students will receive practical experience creating content across all platforms, while developing skills in research, writing, editing, and design. Students will generate strategy-based productions delivered through a variety of formats including print, broadcast, online, and social media; through critical thinking about content and design. This course is co-listed with COMM 4535. Prerequisite(s): COMM 2411 and COMM 2412 or Instructor consent. As needed.

COMM 5550 - Advanced Screenwriting (3)

In this course, students will write the first-draft of a feature-length screenplay. Writing a feature differs significantly from writing a short screenplay, and over the course of the semester, students will build on their foundational screenwriting knowledge through writing assignments and workshops. In addition, students will learn how to work with a writing partner, adapt source material, and write query letters to agents and producers. This course is co-listed with COMM 4550. Prerequisite(s): COMM 2275.

COMM 5560 - Documentary Production (3)

Documentary production techniques and process from research and planning through postproduction along with a survey of the genre, its history, and its screen grammar. This course is co-listed with COMM 4560. Prerequisite(s): COMM 3050 and COMM 3450.

COMM 5565 - Corporate and Freelance Production (3)

Students work on client-based productions, from preproduction planning to shooting, editing, and distribution, preparing them for both corporate and freelance production opportunities. This course is co-listed with COMM 4565. Prerequisite(s): Instructor consent. Fall, Spring.

COMM 5570 - History of International Film (3)

This course is a survey of the major traditions, trends, and movements in international cinema. The course will focus on the work of several international auteur filmmakers, whose films are central to the history of international cinema. This course is co-listed with COMM 4570. Prerequisite(s): Instructor consent. Spring.

COMM 5571 - Methods of Teaching Journalism (3)

This course is intended for majors who are preparing to teach journalism and/or lead a production team. They will learn methods, materials, and organization of the intermediate and secondary journalism program, including development of administrative content, curricular design and development in instructional structures. This course is co-listed with COMM 4571. Summer. This is a professional education course.

COMM 5780 - Communication Leadership and Practice in Organizations (3)

A consideration of theories and principles of communication structures and systems within organizations. This course is co-listed with COMM 4780.

COMM 5781 - Strategic Communication Audits (3)

The assessment and measurement of human interaction within professional settings. This course is co-listed with COMM 4781.

COMM 5800 - Quantitative Research Methods for Communication (3)

Covers the creation, implementation, and analysis of quantitative research methods. These methods are

statistically driven and used to create generalizations about a given population.

COMM 5810 - Theories of Communication (3)

Overview of the major theories used to provide a basis for studying the communication process.

COMM 5820 - Qualitative Research Methods (3)

Covers the theoretical grounding and aims of qualitative research. Practical instruction on how to design, carry out, and write qualitative research.

COMM 5890 - Thesis (1-6)

Special investigation of an approved problem in communication resulting in a formal thesis or screenplay. May be repeated for a maximum of 6 semester hours.

COMM 6771 - Graduate Internship in Communication (1-6)

The application of communication principles in business, industrial governmental, and media settings through a supervised experience. Prerequisite(s): COMM 5780 and/or the school chair consent.

COMM 6775 - Professional Project Seminar (1)

Students will plan and organize the professional project. A formal proposal for the project is produced.

COMM 6800 - Readings (1-3)

Guided study in the literature of special and related fields of communication. May be repeated for a maximum of 6 semester hours. Prerequisite(s): 15 semester hours of graduate credit.

COMM 6890 - Research Problems (1-6)

Supervised research in contemporary problems in communication. May be repeated for a maximum of 6 semester hours

CD 5101 - Professional Issues in Communication Disorders (2)

Integration of knowledge and problem solving applied to professional and ethical decision making in communication disorders. The case study approach will be emphasized. Prerequisite(s): Must be admitted to the Speech-Language Pathology Master of Science Program and must be taken prior to the internship. An additional fee is associated with this course.

CD 5402 - Advanced Issues in Child Language Disorders (3)

Theories, etiologies, and assessment/intervention procedures for children with severe and /or multiple language impairments and language related literacy impairments. Prerequisite(s): Must be admitted to the Speech-Language Pathology Master of Science Program. An additional fee is associated with this course.

CD 5403 - Autism: Communication Across the Lifespan Course (2)

This course will provide an overview of speech and language, behavioral characteristics, and possible etiologies of autism spectrum disorders. Information regarding appropriate informal and formal assessments and treatment options for students with autism will be included. Guidelines for assessment and intervention will be provided, including factors to consider when selecting a communications system, functional assessment of challenging behavior and structured teaching methods that are proven effective with this population. Environmental supports and working with family members effectively will also be included. An additional fee is associated with this course.

CD 5404 - Assessment and Treatment of Language-Based Literacy Disorders (3)

Addresses language and cognitive systems involved in encoding, decoding, and comprehension as related to reading, spelling, and writing disorders and the impact of oral language disorders (phonological, morphological, syntactical and semantic systems) on the development of literacy skills. Application of literacy research to assessment and intervention of language disorders that impact reading, spelling, and writing will be provided. Students will investigate the

crucial role speech-language pathologists and other professionals play in early identification of children at risk. This course requires 5 clock hours of observation for undergraduate students only. This course is co-listed with CD 4404. Prerequisite(s): school consent. An additional fee is associated with this course.

CD 5501 - Articulatory and Phonological Disorders (3)

Best practices in the prevention, assessment, diagnosis, and treatment of young children exhibiting, or at risk for exhibiting, articulatory/phonological disorders and phonological awareness deficits. Prerequisite(s): Must be admitted to the Speech-Language Pathology Master of Science Program. An additional fee is associated with this course.

CD 5502 - Fluency Disorders (2)

Theories, etiologies and assessment/intervention procedures for individuals with fluency disorders (developmental, psychogenic and neurogenic stuttering and cluttering) across the lifespan. Prerequisite(s): Must be admitted to the Speech-Language Pathology Master of Science Program. An additional fee is associated with this course.

CD 5503 - Voice Disorders (3)

Nature, assessment and intervention of voice disorders resulting from functional, organic or neurological origin. Prerequisite(s): Must be admitted to the Speech-Language Pathology Master of Science Program. An additional fee is associated with this course.

CD 5504 - Adult Neurogenic Language Disorders (2)

Aphasia, its possible etiologies, characteristics, diagnostic evaluations and therapy; head trauma, the language of confusion, and other language problems of the aging population. Prerequisite(s): Must be admitted to the Speech-Language Pathology Master of Science Program. An additional fee is associated with this course.

CD 5506 - Motor Speech Disorders (3)

Clinical evaluation and treatment of persons with motor speech disorders (dysarthria and apraxia) resulting from neurogenic etiology. Prerequisite(s): Must be admitted to the Speech-Language Pathology Master of Science Program. An additional fee is associated with this course.

CD 5507 - Research Projects in Speech-Language Pathology (2)

Individual study and/or research in speech-language pathology. Prerequisite(s): Graduate adviser consent. An additional fee is associated with this course.

CD 5508 - Adult Swallowing Disorders (2)

Develops diagnostic and treatment skills in the management of swallowing disorders in children and adults. Prerequisite(s): Must be admitted to the Speech-Language Master of Science Program. An additional fee is associated with this course.

CD 5509 - Pediatric Feeding and Swallowing Disorders (2)

Evaluation and treatment of feeding and swallowing disorders in children with emphasis on medical diagnoses and interfering environmental factors. Prerequisite(s): Must be admitted to the Speech-Language Pathology Master of Science Program. An additional fee is associated with this course.

CD 5511 - Assistive Technology Across the Lifespan (2)

Assessment and intervention techniques for persons with communication impairments who require assistive technologies; emphasis on broad range of etiologies across the lifespan. Prerequisite(s): Must be admitted to the Speech-Language Pathology Master of Science Program. An additional fee is associated with this course.

CD 5512 - Clinical Management (2)

The course focuses on introducing concepts related to clinical practice including the fundamentals of assessment and intervention, treatment planning, professional writing, and professional behavior. Prerequisite(s): Must be admitted to the Speech-Language Pathology Master of Science Program. Permission from the Graduate Advisor. An additional fee is associated with this course.

CD 5515 - Rehabilitation of Cognitive Linguistic Communication Disorders (2)

Exploration of normal and impaired cognitive-linguistic processing, highlighting processing deficits in traumatic brain injury. Methods to assess-treat cognitive-linguistic impairments will be discussed. Prerequisite(s): Must be admitted to the Speech-Language Pathology Master of Science Program. An additional fee is associated with this course.

CD 5608 - Aural Rehabilitation (3)

Effects of hearing impairment of verbal communication. Principles and methods of aural rehabilitation. This course is co-listed with CD 4708. Prerequisite(s): CD 4706. An additional fee is associated with this course.

CD 5801 - Internship in Communication Disorders (4)

Scheduled by the Director of Clinical Services, the internship requires ten weeks of full fulltime practicum in a hospital or rehabilitation setting during the student's last semester of enrollment in the graduate program. Prerequisite(s): Director of Clinical Services consent two semesters in advance. Must be admitted to the Speech-Language Pathology Master of Science Program. An additional fee is associated with this course.

CD 5802 - Externship in Communication Disorders: Educational Setting (3)

The externship is a three-day-a-week school placement completed during the last fall or spring prior to the internship semester. The graduate student will maintain the schedule of the school-based SLP on these days. This course will also have on-campus related activities (meetings, discussion boards, assignments, etc.). This experience is designed to provide the graduate student clinician with advanced specialized practice in management of communication and swallowing disorders for the school aged population. An additional fee is associated with this course. Prerequisite(s): Consent of school Director of Clinical Services two semesters in advance. Special exceptions with school consent. Must be admitted to the Speech-Language Pathology Master of Science Program. An additional fee is associated with this course.

CD 5810 - Graduate Clinical Practicum (1)

Orientation to advanced specialized practice in management of communication and swallowing disorders. Prerequisite(s): Must be admitted to the Speech-Language Pathology Master of Science Program. An additional fee is associated with this course.

CD 5811 - Advanced Graduate Clinical Practicum (1)

Advanced specialized practice in management of communication and swallowing disorders. Requires a 3.00 graduate GPA in CD courses. Must be repeated for a minimum of 6 semester hours. Prerequisite(s): Must be admitted to the Speech-Language Pathology Master of Science Program. An additional fee is associated with this course.

CD 5820 - Offsite Clinical Practicum (2)

The mandatory off-site placement requires a minimum of 12-15 hours per week at an off-site placement completed during the graduate program. The experience is designed to provide the graduate student with an introduction and practice in the management of speech, language, hearing, and swallowing disorders with the emphasis on pediatric disorders. The off-site experience will allow students to generalize clinical skills to academic coursework. Based on availability, this experience may include experience with adults. This course is required for a minimum of one semester during the six semester program prior to externship and/or internship. Repeating the course will require instructor approval. May be repeated for a maximum of 4 semester hours. Prerequisite(s): Acceptance into the graduate program in Communication Disorders program at the University of Central Missouri. Permission from the Graduate Advisor and Off-Site Placement Coordinator.

An additional fee is associated with this course.

CD 5900 - Seminar in Communication Disorders (2)

Detailed studies in a specialized area of communication disorders. Prerequisite(s): Must be admitted to the Speech-Language Pathology Master

of Science Program. An additional fee is associated with this course.

CD 5902 - Research Design in Communication Disorders (3)

An introduction to research design strategies in communication disorders. Prerequisite(s): PSY 3030 or PSY 5050 or equivalent. Must be admitted to the Speech- Language Pathology Master of Science Program. An additional fee is associated with this course.

CD 5910 - Praxis Exam Preparation for Speech-Language Pathology (1)

Designed to facilitate self-study in preparation for taking the Praxis Examination in Speech-Language Pathology. Prerequisite(s): Must enroll in CD 5910 prior to taking the Praxis Exam and completing CD 5801, or school consent. An additional fee is associated with this course.

CD 5911 - Advanced Graduate Clinical Practicum II (1)

Advanced specialized practice in management of communication and swallowing disorders. May be repeated for a maximum of 6 semester hours. Prerequisite(s): CD 4802 or CD 5810. Must be admitted to the Master of Science Speech-Language Pathology program and maintain a 3.0 graduate GPA in departmental courses. An additional fee is associated with this course. Fall, Spring, Summer.

CD 6901 - Thesis (1-5)

Special Investigation of an approved problem in communication disorders resulting in a formal thesis. Prerequisite(s): 15 hours of graduate credit. Must be admitted to the Speech-Language Pathology Master of Science Program. An additional fee is associated with this course.

CIS 5604 - Technology Driven Business (3)

Information technologies are playing a major role in business developments: from market research to product developments, from empowering customers to item delivery. Businesses that started as online book store, now deliver ready to cook groceries at home. This course will explore future possibilities in business ideas and business operations. A graduate level research paper is required.

CIS 5605 - Information Management Systems (2)

Information gathering, storage, analysis, and communication as it relates to decision making in today's business environment. Prerequisite(s): Admission to MBA program and BADM 5400.

CIS 5606 - Advanced Applications Development Using Visual C# (3)

Developing complex, distributed and scalable applications to solve real world business problems. Applications will be developed in Visual C# using technologies such as .Net Remoting, ADO.Net Entity Framework, XML and WPF. Prerequisite(s): CIS 2605 or equivalent.

CIS 5607 - Data Communications and LAN (3)

Fundamental concepts needed to develop and work with data communication systems, including hardware, software, LANS, and network topology.

CIS 5610 - Internet for the Enterprise (3)

Seminar on internet from both a technical and organizational/managerial viewpoint. Prerequisite(s): CIS 1605.

CIS 5611 - Client-side Internet Resources (3)

Developing client based, multi-platform, dynamic Web content in support of strong Web design. A variety of tools and standards such as XML, DHTML, Flash, and AJAX will be considered along with emphasis on robust Web design philosophy. Prerequisite(s): CIS 5610.

CIS 5612 - Server-side Internet Resources (3)

Develop server-based dynamic Web content and manage Web server resources. Emphasis will be placed on technical aspects such as Web server performance, security and effective use of Web services. Prerequisite(s): CIS 5611 or concurrently.

CIS 5630 - Management Information Systems (3)

Use of information technology for decision making and formulation of long- and short-term information systems plans. Working knowledge of systems analysis, design and development, understanding of conceptual and technical foundations and recent research issues. Prerequisite(s): Admission to MBA program and graduate adviser consent.

CIS 5640 - Healthcare Information Systems (3)

Provides knowledge and practical insights into implementation, management and meaningful use of healthcare information systems. It provides students with the necessary understanding of healthcare needs, multiple stakeholders and unique challenges that healthcare industry presents for implementing information systems. Topics include data quality, information security, information systems integration, challenges and impact of electronic health records, the role and responsibilities of the IT department and strategic planning for IT use in a health care setting.

CIS 5650 - Managing Information Security in Organizations (3)

The principles and practice of managing corporate information systems, including acquisition, budgeting, development, and personnel issues.

CIS 5655 - Advanced Client Server Concepts (3)

Advanced Data Base Management Systems and network topics in client server systems. Prerequisite(s): CIS 5780 or equivalent.

CIS 5656 - Mobile Computing with iOS and Android (3)

Major emphasis will be in development of robust business and social media applications to be deployed on smart phones, tables and other mobile devices. The applications will be developed in a distributed environment that includes iOS (iPhone/iPad) and Android platforms. Java, Objective C and other appropriate programming languages will be used for developing these business applications. Topics include mobile operating systems and development environments, design issues dealing with user interfaces and data issues for mobile devices, location-aware and other context-aware services, and virtualization. Prerequisite(s): CIS 5760 or CIS 5606 and CIS 2665 and CIS 5661 or instructor consent.

CIS 5660 - Legal Environment of Information Systems (3)

An examination of jurisprudence influence and processes on contracts, acquisitions, and security in information systems area. Prerequisite(s): Admission to MS degree in Information Technology or Information Systems area in MBA program.

CIS 5661 - Advanced Analysis and Design of Computer Information Systems (3)

Advanced coverage of systems analysis and design topics, including objected oriented analysis and design. Uses UML. Prerequisite(s): CIS 3660 or equivalent.

CIS 5669 - Communications Network Management (3)

In-depth treatment of planning, designing and managing communications networks; includes feasibility analysis, forecasting, optimizing using network management software. Prerequisite(s): CIS 3605 and admission to MS degree in Information Technology or Information Systems area in MBA program.

CIS 5670 - Internship in CIS (3)

Graduate-level internship giving practical higher-level work experience in the CIS career area. Research component required. Prerequisite(s): Approval of Program Adviser, Internship Director, and HCBA Coordinator of Graduate Programs.

CIS 5675 - Project Management (3)

An advanced course in the planning and management of all phases of the computer information systems project, including the creation, execution, and monitoring of system project plans. Prerequisite(s): CIS 3660 and admission to B.S. in Business

Administration, MS degree in Information Technology, or Information Systems area in MBA program. An additional fee is associated with this course.

CIS 5680 - Business Intelligence and Analytics (3)

This course focuses on Oracle Tools and skills for business intelligence. Emphasis is placed on "hands-on" skills with Oracle Data warehouse, Oracle Data Integrator, and Oracle Data Miner. Interesting use cases of business intelligence will be presented and analyzed in class. Prerequisite(s): CIS 5780 or CIS 5780 concurrently.

CIS 5681 - Big Data Solutions for Business (3)

This course focuses on Oracle Big Data solution for business problems. Emphasis is placed on "hands-on" skills with Hadoop HDFS, MapReduce, NoSQL etc. in the process of data acquisition, organization, and integration. The applications and trend of Big Data in businesses will be learned via research and case study. Prerequisite(s): CIS 5780 or concurrently.

CIS 5685 - Information Visualization for Big Data Analytics (3)

This course focuses on information visualization tools for business Big Data. Major topics to cover include basic statistical modeling theory and methods, advanced visualization techniques such as text analysis, dashboard reports design and mechanics, scorecard management, spatial data model and graphics, real-time streaming Big Data visualization. Interesting business use cases will be presented and analyzed in class. Prerequisite(s): CIS 5780 or concurrently.

CIS 5686 - Business Applications of Machine and Deep Learning (3)

Organizations can harness the benefits of the data that they collect by appropriately using the deep learning techniques to create business value. This course will cover basics of machine learning, deep learning and its application to solve complex business problems. Students will learn how Neural Networks, and other machine and deep learning tools and techniques are used in business decision making like fraud detection, audit, product marketing etc. This course emphasizes on the implementation of deep learning algorithms to find solutions to contemporary business needs by using appropriate tools and techniques. This course is co-listed with CIS 4686. Prerequisite(s): CIS 3625 or CIS 3650 Fall, Spring, Summer.

CIS 5690 - Advanced Systems Project (2-3)

Independent study, analysis and development of a specific business computer application. Research component required. Part of the course requirements can be met by working on company projects approved by the adviser. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Approval by the graduate adviser.

CIS 5710 - Special Projects (1-3)

Special projects offerings in computer information systems. Part of the course requirements can be met by working on company projects approved by the adviser. This course is co-listed with CIS 4610. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Instructor consent An additional fee is associated with this course.

CIS 5750 - Big Data Architecture (3)

Planning, design and implementation of network architecture needed to support Big Data projects, including clustering, virtualization, and software defined networks for big data infrastructure. This course is co-listed with CIS 4650. Prerequisite(s): CIS 2665.

CIS 5755 - Software Engineering (3)

An advanced course in the systematic approach to the specification, development, operation, maintenance, and retirement of software. Topics include formal specification tools, developmental strategies, software metrics, verification and validation techniques. This course is co-listed with CIS 4655. Prerequisite(s): CIS 3660. An additional fee is associated with this course.

CIS 5760 - Advanced Applications Development Using JAVA (3)

Develop object-oriented web-based Graphical User Interface (GUI) applications for business using JAVA

as the programming language. This course is co-listed with CIS 4660. Prerequisite(s): CIS 2630 with a grade of C or better, CIS 3650. An additional fee is associated with this course.

CIS 5765 - Data Communication and Distributed Data Processing (3)

Topics covered include managing and monitoring cloud and distributed data communication networks. The concepts covered enable the students to pursue one or more Azure certifications. This course is co-listed with CIS 4665. Prerequisite(s): CIS 2665.

CIS 5780 - Data Resource Management (3)

Designing and administering data resources with consideration of advanced data concepts, database programming, administration and security, transaction management, data mining, data warehousing, and multimedia data processing. This course is co-listed with CIS 4680. Prerequisite(s): CIS 3650 or equivalent or admission to the MS CIS & IT or admission to MBA (Information Systems area or Data Analytics and Business Intelligence area). An additional fee is associated with this course.

CIS 6610 - Readings in Computer Information Systems (1-3)

Selected readings in computer information systems to extend student's understanding of the use of the computer in various business areas and his/her knowledge of current hardware and software in the field. Part of the course requirements can be met by working on company projects approved by the adviser. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Approval by the graduate adviser.

CS 5000 - Special Topics in Computer Science (1-3)

Individual reading and research on some topic not included in the regular offerings of the school. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Instructor consent.

CS 5010 - Seminar in Computer Science (1-3)

For presentation of those topics in computer science not included in the regular offerings of the school. May be repeated for a maximum of 3 semester hours. Prerequisite(s): Instructor consent.

CS 5020 - Internship in Computer Science (1-3)

Graduate level internship providing practical high level work experience in the computer science career area. May be repeated for a maximum of 3 semester hours. Prerequisite(s): Computer science committee and graduate adviser consent.

CS 5030 - Readings in Computer Science (1-5)

Selected reading in computer science designed to deepen and expand the student's understanding of an area of interest. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Instructor consent.

CS 5040 - Master's Project (3)

Project in an area of computer science which fulfills a requirement in the graduate degree program. Part of the course requirements might be met by working on company projects approved by the adviser. Prerequisite(s): Consent of adviser and Computer Science Committee.

CS 5110 - Advanced Applications Programming in C# and .NET (3)

Advanced application development using the Microsoft .NET framework. Topics include hands-on experience in both server-side programming using a variety of Microsoft .NET technologies such as LINQ, WPF, WCF, ADO.NET and ASP.NET. Prerequisite(s): CS 3110.

CS 5120 - Mobile Applications Programming with Android (3)

A course on design and programming of applications for Android mobile devices. Topics include: application lifecycle, MVC design, Android layouts, application design, memory usage and threads, audio and video, database management, location and maps. This course is co-listed with CS 4110. Prerequisite(s): CS 2300.

CS 5130 - Advanced Web Applications and Services Development (3)

A graduate level course which covers the advanced topics in web programming, including client and server side scripting, HTML, JavaScript, jQuery, PHP, other popular web programming techniques, vulnerabilities and testing of web applications. Prerequisite(s): CS 3120 or consent of the instructor.

CS 5160 - Advanced Applications Programming in Python (3)

Advanced applications development with Python. Topics include GUI programming, metaclasses, decorators, multiprocessing, multithreading, network programming, databases with Python, web services, Python web frameworks, and Flask. This course is co-listed with CS 4160. Prerequisite(s): CS 2030 with a C or better or consent of instructor. Fall, Spring, Summer.

CS 5180 - Web Development Frameworks (3)

An introduction to web development frameworks. Students gain hands-on experience creating web applications using several contemporary web development frameworks for both front-end and back-end web development. This course is co-listed with CS 4180. Prerequisite(s): CS 3120 or consent of instructor. Spring.

CS 5200 - Database Theory and Applications (3)

An introduction to database theory and applications. Topics include: E-R model, relational database design, normalization theory, SQL, application design and development, security, and database administration. A significant application-oriented project will be required. This course is co-listed with CS 4600. Prerequisite(s): (CS 1400 or MATH 2410) and CS 2300.

CS 5220 - Advanced Applications Programming in Java (3)

A continued exploration of the Java programming language with an emphasis in utilizing more advanced features of the language in software development. Topics include generics, multithreading, networking, JavaFX, databases, servlets, and JSP. This course is co-listed with CS 4120. Prerequisite(s): CS 2300.

CS 5300 - Advanced Algorithms (3)

Techniques needed to analyze algorithms, divide-and-conquer approach, matrix manipulation, dynamic programming, greedy approach, backtracking, branch-and-bound, and NPcompleteness.

CS 5500 - Advanced Operating Systems (3)

An in-depth study of advanced topics in the field of operating systems such as protection and security, distributed system structures, distributed file systems, multiprocessor operating systems, interprocess communication, parallel and concurrent programming.

CS 5600 - Advanced Database Systems (3)

An in-depth study of advanced topics in the field of database systems such as data storage, query processing and optimization, transaction management, concurrency control, recovery, data warehouse and data mining, NoSQL databases, and advanced application development. Prerequisite(s): CS 4600.

CS 5610 - Introduction to Cloud Computing (3)

An introduction and broad view of cloud computing and its applications. Topics include datacenter architectures, distributed computing models and technologies, Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), Software-as-a-Service (SaaS), virtualization, microservices and containerization, security issues, commercial cloud computing platforms such as Amazon Web Services, Google Cloud Platform, and Microsoft Azure. This course is co-listed with CS 4610. Prerequisite(s): CS 2300 or CS 2400 or consent of instructor.

CS 5660 - Introduction to Cloud Services (3)

Fundamentals and advanced techniques required for a cloud practitioner. Topics include fundamentals of AWS cloud and its basic global infrastructure, basic/advanced core services, security aspects, and cost management. Topics also include fundamentals of Google cloud and Microsoft Azure. This course prepares students for the AWS Certified Cloud

Practitioner certification. This course is co-listed with CS 4660. Prerequisite(s): CS 2400 or Instructor consent.

CS 5700 - Artificial Intelligence (3)

This course provides opportunities to learn the elements and techniques of artificial intelligence and how they apply to daily life. Concepts and methods are illustrated with real-world applications. This course is co-listed with CS 4700. Prerequisite(s): (CS 2400 or MATH 2410) and CS 2300.

CS 5710 - Machine Learning (3)

Provides opportunities to learn various machine learning techniques to model data for classification and prediction. Concepts and methods are illustrated with real-world applications. This course is co-listed with CS 4710. Prerequisite(s): CS 2300 and (MATH 1152 or CS 3400) or instructor consent.

CS 5720 - Neural Network and Deep Learning (3)

This course provides opportunities to learn fundamental concepts and techniques for neural network and deep learning and their applications. Concepts and methods are illustrated with real-world applications. This course is co-listed with CS 4720. Prerequisite(s): Consent of instructor or CS 1030, CS 2300, and (CS 4710 or CS 5710).

CS 5730 - Image Processing and Computer Vision (3)

This course provides opportunities to learn fundamental concepts and techniques for image processing and computer vision and their applications. Concepts and methods are illustrated with real-world applications. Prerequisite(s): Consent of instructor or CS 1030, CS 4300, and (CS 4710 or CS 5710).

CS 5760 - Natural Language Processing (3)

An introduction to natural language processing (NLP). Approaches to using computational techniques to work with human language. Topics include text processing, n-grams, sentiment classification, vector models, part of speech tagging, named entity recognition, large language models, and some common applications of NLP. This course is co-listed with CS 4760. Prerequisite(s): (CS 2300 or CS 2030) and (ACST 1300, ACST 2310, or ACST 3311). Fall.

CS 5810 - Computer Graphics (3)

An introduction to computer graphics. Topics include: basic geometric primitives, transformations, clipping, viewing, color models, animation, and rendering. Programming: using OpenGL and appropriate languages. This course is co-listed with CS 4810. Prerequisite(s): CS 2300 and CS 3500.

CS 5900 - Compiler Design and Construction (3)

Compiler concepts including finite-state machines, top-down and bottom-up parsing, and syntax directed translation. The topics of regular grammars, context-free grammars, lexical analysis, LL(k) grammars, LR(k) grammars, Lex and Yacc will be discussed. Prerequisite(s): CS 3100 or instructor consent.

CS 6010 - Thesis (3)

Research in an area of computer science, directed by a graduate faculty member, which leads to the completion of a thesis. Must be repeated for 6 semester hours. Prerequisite(s): Instructor consent.

CJ 5001 - Special Projects in Criminal Justice Administration (1-3)

Individual or group study of problems in special areas of interest. This course is co-listed with CJ 4000. May be repeated.

CJ 5002 - Criminal Justice Philosophy and Policy (3)

An examination of various areas or criminal justice philosophy, theory, and policy, including an analysis of the role, creation and function of public policy. This course is co-listed with CJ 4002. Prerequisite(s): Admission to the MS in Criminal Justice program.

CJ 5003 - Advanced Criminology (3)

An analysis of theoretical perspectives addressing causes and correlates of crime, with attention given to typologies, victim and offender issues, as well as policy implications of various perspectives on crime. This course is co-listed with CJ 4003. Prerequisite(s): Admission to the MS in Criminal Justice program.

CJ 5006 - Comparative and International Criminal Justice Systems (3)

A comprehensive overview of the variety of ways that criminal justice systems are organized and implemented around the world. Prerequisite(s): Admission to the MS in Criminal Justice program.

CJ 5010 - Criminal Justice International Study (3)

Credit granted for study in a school approved program or study tour in a foreign country. This course is co-listed with CJ 4010. May be repeated for a maximum of 9 semester hours. Prerequisite(s): Consent.

CJ 5090 - Miscarriages of Justice (3)

An examination of the nature of wrongful convictions and miscarriages of justice in the criminal justice system. This course is co-listed with CJ 4090.

CJ 5100 - Graduate Study in Criminal Justice Issues (1-3)

Graduate level individual or group study of Criminal Justice related problems in special areas of interest.

CJ 5101 - Criminal Justice Planning (3)

Planning concepts and development of comprehensive criminal justice plans; their integration into meaningful crime reduction and resistance programs; and their influence on the operations of police, judicial and correctional agencies. Prerequisite(s): Admission to the MS in Criminal Justice program.

CJ 5102 - Ethical Leadership in Criminal Justice (3)

This course presents best practices in leadership, focusing on ethical principles and actions. Students will use case studies and active learning to apply management concepts to criminal justice specific agency issues. Prerequisite(s): Admission to the MS in Criminal Justice program or Policy and Planning Graduate Certificate.

CJ 5105 - Custody, Care and Treatment in the Institutional Setting (3)

An examination of operations in the institutional setting relating to classification, custody, care, and treatment of the confined off ender.

CJ 5301 - Legal Aspects of the Criminal Justice System (3)

An investigative overview of the jurisprudential process and legal issues affecting the various areas of criminal justice Prerequisite(s): Admission to the MS in Criminal Justice program.

CJ 5403 - Sexual Assault and the Criminal Justice System (3)

In-depth study of sexual assault and sex offenders. Investigation into the motivation of sex offenders, the victim's responses to assault, and investigative procedures. This course is co-listed with CJ 4403.

CJ 5420 - Organized Crime (3)

An analysis of both the historical development of organized crime and its current impact on society. The enforcement, prosecutorial, judicial, and legislative actions utilized to combat organized crime will be examined. This course is co-listed with CJ 4420.

CJ 5444 - Terrorism (3)

Study of violent political and religious movements around the world and the difficulties they pose to the institutions of justice in a democratic society. This course is co-listed with CJ 4444. Taught only as an online course.

CJ 5488 - Homeland Security (3)

Introduction to homeland security with focus on risks and hazards confronting the U.S., along with varied programs and agencies responsible for responding to these threats. This course is co-listed with CJ 4488.

CJ 5600 - Competencies in Criminal Justice (3)

Individual study and research of pertinent criminal justice administration issues. Completion of this course fulfills the non-thesis option in the program. Prerequisite(s): Instructor consent. Must have completed in last core classes (CJ 5002, CJ 5003, CJ 5301, CJ 5610, and CJ 5620) prior to enrollment in class, or be concurrently enrolled in last core classes(es) and CJ 5600 in final semester of completing program.

CJ 5601 - Grant Writing in Criminal Justice (3)

Capstone course for the Criminal Justice Administration and Leadership degree. Students will develop skills to create a sound and competitive funding grant proposal. All components of the process are completed including background literature review, evaluation, budget, justifications, and the overall grant submission process.

CJ 5602 - Readings in Criminal Justice Administration (1-6)

Selected readings that allow the student to pursue areas of particular interest in Criminal Justice. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Instructor consent.

CJ 5610 - Statistics for Criminal Justice (3)

Graduate introduction to statistical techniques in criminal justice. The course provides an understanding of the relationship between statistical analysis and research methodology. It is a basic graduate course in statistics and presumes minimal mathematical or statistical background. Stress is placed on the assumptions, restrictions and uses of various statistical techniques rather than on mathematical derivation of formulas or detailed examination of theoretical systems. Prerequisite(s): Admission to the MS in Criminal Justice program.

CJ 5620 - Methods of Criminal Justice Research (3)

A comprehensive examination of the basic concepts of research, causal order of variables, sampling techniques, research designs, techniques of data collection and analysis that will enable the student to critically evaluate crime and delinquency research as well as design and implement his/her own research. Prerequisite(s): Admission to the MS in Criminal Justice program.

CJ 5625 - Crime Analysis (3)

The patterns of crime, the analysis of such patterns and applications of crime analysis. Focus is on temporal and spatial distributions of crime, crime analysis charting and visual investigative analysis. Prerequisite(s): Admission to the MS in Criminal Justice program.

CJ 5700 - The Juvenile Justice System (3)

The historical development and assessment of current policies and practices of agencies involved in the juvenile justice system.

CJ 5920 - Gender and Crime (3)

This course focuses on exploring the relationship between gender and crime through four main components: (1) females and offending, (2) females and victimization/survivorship, (3) responses to both, and (4) females as criminal justice practitioners. This course will provide explanations for why women are less likely to commit crimes than their male counterparts, explore motivations for when they do engage in criminal activity, discuss why they are victimized at higher rates for certain offenses, and debate how effective the criminal justice system and other programming has been at addressing both gender-specific offending and victimization. The class will finish with a look at the unique challenges to women as practitioners in the criminal justice system. This course is co-listed with CJ 4920.

CJ 5930 - Race, Class, and Crime (3)

An exploration of the intersection of races and class as it impacts crime and the response by the criminal justice system.

CJ 6000 - Advanced Research (1-3)

Individual research and study into a specific area of criminal justice as approved and directed by major professors. Can be used as an elective or prerequisite

for CJ 6600 Thesis. School consent required. Prerequisite(s): CJ 5620.

CJ 6600 - Thesis (3)

Special investigation into a specific area of criminal justice administration. It is recommended that the student should have completed the major courses in his/her program before enrolling in this course. Prerequisite(s): CJ 6000.

CDM 5000 - Special Topics in Crisis and Disaster (3)

Exploration of emerging issues in the management of crises and in depth examination of special topics impacting on disasters. This course is co-listed with CDM 4000. May be repeated.

CDM 5015 - Catastrophic Readiness (3)

Exploration of catastrophic events, as contrasted with disasters, requiring unique strategies, techniques, and tools to achieve effective response and recovery for the community and nation. This course is co-listed with CDM 4015.

CDM 5215 - Environmental Disasters (3)

Examine man-made, industrial, and technological events that produce environmental disasters. Explore the sociopolitical issues that contribute to environmental disasters. This course is co-listed with CDM 4215. Taught only as an online course.

CDM 5715 - Business Continuity Planning (3)

Planning methodologies utilized by business and industry. Risk identification, business impact analysis, and the adoption of alternative recovery methods for critical processes. This course is co-listed with CDM 4715.

CDM 5735 - Critical Infrastructure (3)

Critical Infrastructure is vital to the economic and national security and must be protected from intentional and unintentional human acts and natural disasters. The course investigates dependencies and interdependencies, risk methodologies, security strategies and tactics to protect those critical infrastructures. This course is co-listed with CDM 4735. Taught only as an online course.

CDM 5745 - Crisis Management (3)

Systematic study of crisis in business and industry; vulnerability analysis, disaster-resistant companies, crisis communications strategies, employee support services, and public relations. This course is co-listed with CDM 4745.

CMGT 5310 - Construction Safety (3)

Construction safety and health conditions on the job as they relate to workers, supervisors, inspectors, and the public. This course is co-listed with CMGT 4310. Prerequisite(s): CMGT 2310. An additional fee is associated with this course.

CMGT 5325 - Advanced Estimating and Cost Analysis (3: 2 lecture, 1 lab)

An advanced course in construction cost estimating utilizing the computer and associated professional software to assist the estimator. This course is co-listed with CMGT 4325. Prerequisite(s): CMGT 2310 and CMGT 2325. An additional fee is associated with this course.

CMGT 5330 - Mechanical Systems for Buildings (3)

Mechanical systems integrated with buildings and other equipment. This course is co-listed with CMGT 4330. Prerequisite(s): CMGT 2310. An additional fee is associated with this course.

CMGT 5340 - Solar Energy for Building Construction (3)

An analysis of solar energy systems and components as they apply to types of structure, sites, and climate regions. This course is co-listed with CMGT 4340. An additional fee is associated with this course.

CMGT 5355 - Computer-Based Project Control (3: 2 lecture, 1 lab)

An advanced course in construction project scheduling utilizing the computer and associated professional software to assist the project

scheduler. This course is co-listed with CMGT 4355. Prerequisite(s): CMGT 3355. An additional fee is associated with this course.

CMGT 5380 - Heavy Construction: Methods and Materials (3)

Explores heavy construction methods and materials. Included are the concepts of site investigation, heavy construction means and methods, heavy construction material characteristics and costs, heavy equipment types and uses, and equipment costs, production rates and unit cost of production. This course is co-listed with CMGT 4380. Prerequisite(s): CMGT 2310 and MATH 1111. An additional fee is associated with this course.

COUN 5000 - Special Projects in Professional Counseling (1-5)

Individual or group study in special areas of interest. An approved written proposal required prior to enrollment. Prerequisite(s): Program coordinator consent. An additional fee is associated with this course.

COUN 5100 - Foundations of Professional Counseling (3)

An overview of school guidance programs and counseling services in community settings. History, philosophy, leadership/management skills, program planning, implementation, and collaboration are studied. An additional fee is associated with this course. This is a professional education course.

COUN 5110 - Orientation to Professional Counseling and Ethics (3)

Includes professional ethics, legal issues, organizations, and areas of specialization. Introduction to the work of counselors, impact of experiences on counseling and professional development. An additional fee is associated with this course. This is a professional education course.

COUN 5130 - Management of Comprehensive School Counseling Programs (3)

An in-depth study of program management skills in school and community settings including job descriptions, programs, facilities, funding, evaluation and program revision in settings of professional counselors. Prerequisite(s): COUN 5100 and COUN 5110. An additional fee is associated with this course. This is a professional education course.

COUN 5131 - Management of Clinical Mental Health Counseling (3)

An in-depth study of program management skills in community settings including program models, grant funding, social justice, evaluation and program revision. Prerequisite(s): COUN 5100 and COUN 5110. An additional fee is associated with this course.

COUN 5132 - Applications of Elementary School Counseling (1)

Professional and ethical issues in elementary school counseling settings. Focus on current issues, trends, and applications in the field of elementary school counseling. Prerequisite(s): COUN 5130. An additional fee is associated with this course. Summer.

COUN 5133 - Applications of Middle School Counseling (1)

Professional and ethical issues in middle school counseling settings. Focus on current issues, trends, and applications in the field of middle school counseling. Prerequisite(s): COUN 5130. An additional fee is associated with this course. Fall.

COUN 5134 - Applications of High School Counseling (1)

Professional and ethical issues in high school counseling settings. Focus on current issues, trends, and applications in the field of high school counseling. Prerequisite(s): COUN 5130. An additional fee is associated with this course. Spring.

COUN 5230 - Counseling Diverse Populations (3)

Explores race, ethnicity, gender, sexual orientation, socioeconomic class and ability as characteristics of diversity. Counseling skills will be refined to reflect understanding of impact of diversity. Prerequisite(s): COUN 5610. An additional fee is associated with this course. This is a professional education course.

COUN 5310 - Development Across the Life Span (3)

Human development across the lifespan with emphasis on demonstrating an applied understanding of the tasks related to social, emotional, cognitive, physical and self-concept development. Prerequisite(s): Admission to the Counselor Education Program and approved program of study or program coordinator consent. An additional fee is associated with this course. This is a professional education course.

COUN 5320 - Mental Health Issues in Counseling (3)

Use modern technology and other resources to explore mental health issues relevant to professional counselors who work with individuals in an educational or therapeutic environment. Prerequisite(s): COUN 5230 (or concurrent enrollment), COUN 5310, COUN 5510 and COUN 5710. An additional fee is associated with this course. This is a professional education course.

COUN 5410 - Career Development and Counseling (3)

Career development and counseling models and the delivery of educational and career information in school and community settings. Prerequisite(s): COUN 5100, COUN 5110 and COUN 5500. An additional fee is associated with this course. This is a professional education course.

COUN 5500 - Pre-Practicum in Professional Counseling (3)

An intensive laboratory practice to develop listening, influencing, and other counseling skills while applying theoretical knowledge. Skills are covered using lecture/discussion methods, videos, observations, and participation in practicing skills. Prerequisite(s): COUN 5100 and COUN 5110 or simultaneous enrollment. An additional fee is associated with this course. This is a professional education course.

COUN 5510 - Counseling Theories (3)

An overview of counseling theories that provides a consistent model(s) to conceptualize client presentation. Essential interviewing skills and selection of appropriate counseling interventions are included. Prerequisite(s): COUN 5110 and COUN 5100 or simultaneous enrollment. An additional fee is associated with this course. This is a professional education course.

COUN 5520 - Introduction to Play Therapy (3)

Provides an overview of play therapy, exploring play behavior as a language used by children. Major theories and associated techniques will be presented. Prerequisite(s): Advanced standing & Program Coordinator consent. An additional fee is associated with this course. This is a professional education course.

COUN 5521 - Foundations in Play Therapy (3)

This online course presents the philosophy and rationale for the use of play therapy. Child-centered play therapy is explored in depth, and the course provides instruction on the basic play therapy skills and the therapeutic process of child-centered play therapy. Prerequisite(s): Instructor approval prior to enrollment in the course. An additional fee is associated with this course. This is a professional education course.

COUN 5610 - Introduction to Group Work (3)

Provides students with an understanding of the dynamics of group interaction and the role of the counselor in helping individuals achieve self-direction. Prerequisite(s): COUN 5500, interview with instructor prior to enrollment and instructor consent. Must be admitted to Counselor Education Program. An additional fee is associated with this course. This is a professional education course.

COUN 5710 - Introduction to Assessment (3)

Commonly used standardized tests, including use, administration, scoring, recording, interpretation, and technology. A charge is made for use of testing materials. An additional fee is associated with this course. This is a professional education course.

COUN 5720 - Analysis and Diagnosis of the Individual (3)

Application of basic principles and methods of case conceptualization, assessment, and diagnosis and related ethical and legal considerations. Testing materials fee applies. Prerequisite(s): COUN 5320 ; Advanced status is also required. An additional fee is associated with this course. This is a professional education course.

COUN 5810 - Program Evaluation and Research in Counseling (3)

Evaluating counseling interventions and comprehensive program evaluation through quantitative and qualitative research knowledge and skills. Includes communicating outcomes and integrating findings for continuous program improvement. Prerequisite(s): COUN 5100, COUN 5110. An additional fee is associated with this course. This is a professional education course.

COUN 5900 - Practicum in Counseling (3)

Supervised practice of counseling in an approved setting appropriate to the student's program of study. Both individual and group supervision are provided. Prerequisite(s): COUN 5510, COUN 5610, COUN 5230, COUN 5720 (or concurrent enrollment), COUN 5810 and advanced status. An additional fee is associated with this course. This is a professional education course.

COUN 6000 - Special Projects in Counseling (1-3)

Individual or group study of complex problems or issues in special areas of interest. An approved written proposal is required prior to enrollment. May be repeated as appropriate for an approved program of study. Prerequisite(s): Program coordinator consent. An additional fee is associated with this course.

COUN 6323 - Mental Health Issues in Children (1)

This course offers an exploration of common mental health problems and diagnoses in childhood, including anxiety, mood, and behavioral disorders. The course provides a developmental framework for understanding children's clinical problems and a holistic conceptualization of the child client in conjunction with these presenting problems. An additional fee is associated with this course.

COUN 6500 - Crisis Intervention in Professional Counseling (1)

This course is designed to provide an overview of both the theory and practice of consultation and collaboration in professional counseling, multicultural strengths, and limitations for each approach, evaluation, and ethical considerations. An additional fee is associated with this course.

COUN 6510 - Etiology and Pharmacology of Addictions (1)

This course is designed to examine the etiology of substance abuse. Myths and stereotypes about drug and alcohol use and the socio-cultural factors that contribute to addictions will be explored. An additional fee is associated with this course.

COUN 6520 - Addictions Counseling: Treatment Planning (1)

This course, the second of three graduate courses providing an overview of addiction processes, is designed to develop treatment planning skills, including screening, intake, assessment and diagnosis. An additional fee is associated with this course.

COUN 6530 - Addictions Counseling: Theoretical Approaches and Co-Occurring Disorders (1)

This course examines major theoretical approaches to the treatment of substance abuse. Diagnosis of co-occurring disorders will also be addressed. An additional fee is associated with this course.

COUN 6540 - Parent and Family Counseling (3)

An introduction to parent education and family counseling theories as applied in school and community settings. Prerequisite(s): COUN 5230 and COUN 5510. An additional fee is associated with this course. This is a professional education course.

COUN 6550 - Advanced Counseling Theories (1-3)

An in-depth study of selected counseling models and practices and integration with the individual student's counseling model. Approved written proposal required before enrollment. Prerequisite(s): COUN 5510 or instructor consent. An additional fee is associated with this course.

COUN 6555 - Consultation in Professional Counseling (1)

This course is designed to provide an overview of both the theory and practice of consultation and collaboration in professional counseling, multicultural strengths, limitations for each approach, evaluation, and ethical considerations. An additional fee is associated with this course.

COUN 6560 - Supervision in Professional Counseling (1)

Provides students and counselors an understanding of models and theories related to professional counseling, methods, models, and principles of clinical supervision. Prerequisite(s): COUN 5900. An additional fee is associated with this course.

COUN 6561 - Supervision in Play Therapy (1)

This course targets the specific and unique supervisory tasks and considerations for play therapy supervisors, and these supervisory tasks are explored from a supervision theory-based perspective. Hours in this course count towards education hours required for application as a Registered Play Therapist-Supervisor. Prerequisite(s): Instructor approval. An additional fee is associated with this course.

COUN 6590 - Play Therapy and Childhood Trauma (1)

This course targets the role and use of assessment in play therapy, identification and considerations for childhood trauma in play therapy, and trauma-focused modalities that can be integrated with play therapy. Prerequisite(s): COUN 5520 or COUN 5521 and COUN 6930 and instructor consent. An additional fee is associated with this course.

COUN 6620 - Advanced Group Work (3)

Under close supervision of instructor, co-facilitates a laboratory group including pre- and post-group planning. Prerequisite(s): COUN 5900 and screening interview with and instructor consent. An additional fee is associated with this course.

COUN 6800 - Readings in Professional Counseling (1-5)

Individual study and research regarding areas of particular interest in professional counseling. Approved written proposal required prior to enrollment. May be repeated for a maximum of 5 semester hours. Prerequisite(s): Program coordinator consent. An additional fee is associated with this course.

COUN 6890 - Thesis (3-6)

Special investigation of an approved problem in professional counseling resulting in a formal thesis. A prospectus is required. An additional fee is associated with this course.

COUN 6910 - Internship in Professional Counseling (3-6)

Supervised practice at an approved, specialty-related site. Students are expected to fulfill professional roles and functions under supervision of a certificated or licensed counselor. May be repeated. Prerequisite(s): COUN 5130 or COUN 5131 ;COUN 5810 and advanced status. Grade of A or B in COUN 5900; and program coordinator consent. An additional fee is associated with this course. This is a professional education course.

COUN 6920 - Advanced Practicum in Professional Counseling (3)

Individual or group supervised practice in a specified area of counselor education in an approved setting appropriate to the student's program of study. Prerequisite(s): Program coordinator consent. An additional fee is associated with this course.

COUN 6930 - Advanced Practicum in Play Therapy (2)

This course will present the various seminal theories in play therapy and their diverse application in the play therapy treatment process. The course explores the stages and types of play often present during play therapy in conjunction with childhood development and various presenting problems. As the practicum component for this course, students will present 3 recorded play therapy sessions for group supervision and peer review. Prerequisite(s): COUN 5520 or COUN 5521 and instructor approval. An additional fee is associated with this course.

COUN 6940 - Advanced Practicum in Play Therapy Techniques (1)

This course targets the application sandtray as a modality in play therapy for clients across the lifespan. The course explores the theory-based approach to basic sandtray skills, its use with various problems and client populations, and its similarities and distinctions for sandplay in play therapy. As the practicum component for this course, students will present 2 recorded sandtray sessions for group supervision and peer review. Prerequisite(s): COUN 5520 or COUN 5521 and COUN 6930 and instructor consent. An additional fee is associated with this course.

CYBR 5050 - Special Topics in Cybersecurity (1-3)

Individual reading and research on some cybersecurity topic not included in the regular offering of the school. May be repeated for maximum of 6 semester hours. Prerequisite(s): Consent of instructor.

CYBR 5060 - Internship in Cybersecurity (1-3)

Graduate level internship providing practical high-level work experience in the cybersecurity area. May be repeated for a maximum of 3 semester hours. Prerequisite(s): Cybersecurity committee and graduate adviser consent.

CYBR 5140 - Introduction to Malware (3)

Taxonomy, detection, and analysis of malicious software. Topics include computer viruses, worms, rootkits, detection techniques employed in antivirus software, ad analysis tools for malware identification. Prerequisite(s): CS 2300 or consent of the instructor.

CYBR 5240 - Web Application Security (3)

Identification and prevention of security vulnerabilities in web applications. Topics include Web Fundamentals, Authentication, Secure User Input, Secure Configuration, Secure Web Development, and attack vectors such as Session Hijacking, SQL Injection, Cross-Site Scripting (XSS), Cross-Site Request Forgery, XML External Entity. This course is co-listed with CYBR 4140. Prerequisite(s): CS 1030 or CS 1100.

CYBR 5310 - Design of Cryptographic Algorithms and Protocols (3)

Design and analysis of cryptographic algorithms and protocols. Topics include symmetric-key cipher design, hash function algorithms, public-key algorithms, key establishment protocols, and authentication protocols. Prerequisite(s): CS 2300 or consent of the instructor.

CYBR 5610 - Cloud Security (3)

Introduce cloud security from fundamentals to advanced and practical topics. Topics include cloud security fundamentals, threat models and risks/vulnerabilities of cloud computing, technical security principles and controls for cloud data, cloud platforms and infrastructure, and cloud application, the Cloud Control Matrix (CCM) and CAIQ, and scripting and automation in the cloud. This course prepares students for the $(ISC)^2$ Certified Cloud Security Professional certification exam. This course is co-listed with CYBR 4610. Prerequisite(s): (NET 1060 and CYBR 2500) or CS 4800 or instructor consent. Spring.

CYBR 5720 - Cybersecurity Policies and Risk Management (3)

Introduction to cybersecurity governance, policy development, and security risk management of an organization. Topics include NIST and ISO security policy frameworks, security standards and guidelines, security risk assessment, risk mitigation through security controls, disaster recovery, and incident response. Fall.

CYBR 5800 - Advanced Computer Networking and Security (3)

An in-depth study of various network attacks techniques and methods to defend against them. Topics include packet sniffing and spoofing, attacks on the transport layer (TCP, UDP), network layer (IP, ICMP), and data link layer (ARP), firewall, DNS attacks, and VPN. Prerequisite(s): CS 3840 or instructor consent.

CYBR 5820 - Introduction to Information Assurance (3)

Formal models and principles of computer security to achieve information assurance. Topics include security policies in an enterprise, multi-level security models, access control models and implementation, security evaluation, security risk assessment, legal and ethical aspects of security. This course is co-listed with CYBR 4820. Prerequisite(s): CS 2400.

CYBR 5840 - Ethical Hacking (3)

Introduction to hacking techniques and exploits for ethical purpose. Topics include pen test planning and scoping, rules of engagement, reconnaissance, port scanning, OS finger printing and version scanning, vulnerability scans, exploitation, post-exploitation strategies and pivoting, password attacks, and social engineering. This course is co-listed with CYBR 4840. Prerequisite(s): (NET 1060 and CYBR 2500) or CS 3840.

CYBR 5850 - Computer and Network Forensics (3)

Digital forensics including computers, mobile devices, and network traffic. The course covers different types of software tools and techniques in order to perform forensic investigations. Topics include introduction to digital forensics, data acquisition, computer forensics analysis, mobile forensics analysis, network log and traffic acquisition, and network forensics analysis. This course is co-listed with CYBR 4850. Prerequisite(s): CS 2300 or CYBR 2500.

CYBR 5920 - Software Security (3)

Introduction to software security. Topics include Set-UID programs, environment variables, Shellshock attack, buffer overflow attack, return-to-libc attack, return oriented programming, format string vulnerability, race condition vulnerability, Dirty COW, reverse shell, Fuzzing, Shellcode development, SEH Overwrite Exploits, and Android repackaging attack. This course is co-listed with CYBR 4920. Prerequisite(s): CS 3500 or CYBR 3130.

CYBR 5940 - Threat Intelligence and Incident Response (3)

Introduce advanced skills and tools for threat intelligence and incident response. Topics include network evidence acquisition, log aggregation and analysis, NetFlow analysis, and full-packet hunting. This course is co-listed with CYBR 4940. Prerequisite(s): CYBR 5840 or Instructor consent. Spring.

DSA 5020 - Internship in Data Science and Artificial Intelligence (3)

Graduate level internship providing practical high-level work experience in the data science career area. Prerequisite(s): Computer Science committee and graduate advisor consent.

DSA 5100 - Programming Foundations for Data Science and AI (3)

Introduction to Data Processing with Python. Topics include Data Crawling, Clearing, Reorganizing and Visualization using state-of-the-art Python Packages and Tools. This course is co-listed with DSA 4100. Prerequisite(s): CS 2030 or Instructor consent.

DSA 5200 - Advanced Data Visualization (3)

This course covers the principles, techniques, and tools for effective data visualization. Topics include data visualization for business intelligence, statistical analysis, dashboard design, and Web visualization. This course is co-listed with DSA 4200. Prerequisite(s): DSA 3200 or Instructor consent.

DSA 5400 - Statistical Foundations for Data Science and AI (3)

Statistical foundations for data science and artificial intelligence and their applications. Topics including probability distributions review, descriptive statistics, hypothesis testing, Bayesian rule, linear and logistic regression analysis, analysis of variance and statistical programming language R. This course is

co-listed with DSA 4400. Prerequisite(s): ACST 1300 and CS 2030.

DSA 5600 - NoSQL Database Systems (3)

This course provides opportunities to learn a new class of non-relational databases known as NoSQL. Topics include data models, MongoDB, design patterns, and NoSQL in the cloud. This course is co-listed with DSA 4600. Prerequisite(s): DSA 5200 or Instructor consent.

DSA 5620 - Big Data Analytics (3)

This course provides an introduction to big data analytics. Topics include data analytics, data mining, MapReduce framework, and Spark framework. This course is co-listed with DSA 4620. Prerequisite(s): CS 2300 and CS 2400 or consent of instructor.

CADD 5171 - Production Design/Drafting (3)

Tool and die, jig and fixture, casting, weldment, and hydraulic/pneumatic plumbing design problems are studied and drawings are developed using manual and computer-aided drafting techniques. This course is co-listed with CADD 4171. Prerequisite(s): CADD 2140 with a C or better; and CADD 3120 with a C or better; and ENGT 2530 An additional fee is associated with this course.

CADD 5174 - Machine Design (3:3 lecture, 0 lab)

Drafting problems involving the elements of the designing and/or redesigning of mechanisms and machines. This course is intended for students interested in Engineering Design Technology, Industrial Management, and Technology. This course is co-listed with CADD 4174. An additional fee is associated with this course. Spring.

CADD 5175 - Design Analysis and 3D Printing (3:2 lecture 1 lab)

Design Analysis and 3D Printing course surveys the application of computer-aided design (CAD) systems and how they relate to design analysis and 3D printing. This course is intended for students interested in Design & Drafting Technology, Engineering Technology, 3D Printing, Industrial Management, and Technology. This course is co-listed with CADD 4175. Prerequisite(s): Master's-level college students can take this course. An additional fee is associated with this course. Spring.

CADD 5180 - Industrial Design (3)

Study and application of the design process and design principles related to industrial products. This course is co-listed with CADD 4180. Prerequisite(s): CADD 2140 with a C or better. An additional fee is associated with this course.

CADD 5210 - Innovations Management for CADD (3)

Innovation management and engineering CAD software design principles are analyzed, synthesized, and applied by students. Topics include industry dynamics, technological innovation, innovation strategies, collaboration, product innovation management, product development team management, innovation-deployment strategies, machine part/component design/finite element analysis, semi-automated product assembly techniques, and motion-controlled product simulation videos are created and experienced by each student. This course is co-listed with CADD 4210. An additional fee is associated with this course. Summer.

EASC 5300 - Earth Resources (4)

This course investigates the origin, geologic occurrence, identification and use of earth materials including gold, diamonds, water, petroleum, building materials, and soils. Environmental problems associated with the extraction and utilization of earth resources are examined.

ECON 5005 - Economic Analysis for Business Decisions (2)

Designed to give managers a working knowledge of economic theory and statistical methods. The general objective of this course is to help the student learn to handle the allocation and pricing problems of business in a sophisticated manner, using the reasonable tools which production, cost, and demand theory make available to them. Because of the applied nature of this course, problem solving and modeling are key skills for success. Prerequisite(s): Admission to the MBA program and BADM 5400.

ECON 5010 - International Economics (3)

Principles underlying international trade and finance and analysis of current problems and related policies. This course is co-listed with ECON 4010.

ECON 5015 - Mathematical Economics I (3)

A survey of mathematics including theory of sets, calculus, differential and difference equations, linear programming, matrices, and their application in economics. This course is co-listed with ECON 4015. Prerequisite(s): Consent of the instructor.

ECON 5016 - Mathematical Economics II (2)

A continuation and more advanced study in the application of mathematical tools in economics. This course is co-listed with ECON 4016. Prerequisite(s): ECON 5015.

ECON 5020 - Natural Resource Economics (3)

Nature of natural resources; economic efficiency as basis for natural resource use; externalities in natural resource use; factors influencing environmental quality; alternate public policy tools for influencing natural resource use. This course is co-listed with ECON 4020.

ECON 5030 - Directed Studies in Economics (1-3)

Intensive study of significant economic topics. This course is co-listed with ECON 4030. May be repeated for a maximum of 9 semester hours.

ECON 5050 - Comparative Economic Systems (3)

Analysis of alternate patterns of economic control, planning, and market structures. The experience of British socialism, American capitalism, and Soviet-type central planning is emphasized. This course is co-listed with ECON 4050.

ECON 5054 - Sports Economics (3)

Designed to investigate questions relating to the contribution of professional and recreational sports to social welfare. This includes exploring the decision to participate use public funding for sport facilities, and labor market issues. The general objective of this course is to help the student learn to apply economic concepts and ideas to the sports industry. Because of the applied nature of this course, problem solving and modeling are key skills for success. This course is co-listed with ECON 4054.

ECON 5075 - Time Series Analysis (3)

The course will introduce, develop and apply forecasting models to decision making problems. The interpretation and accuracy of forecasting models will also be explored. This course is co-listed with ECON 4075. Prerequisite(s): Consent of the instructor.

ECON 5080 - Econometrics I (3)

Mathematical techniques and problems used in the quantitative approach to economic theory. This course is co-listed with ECON 4080. Prerequisite(s): Consent of the instructor.

ECON 5085 - Predictive Analytics (3)

Introductory course in data mining and predictive model development. Students will be introduced to database tools for collecting, retrieving, and applying data mining processes, as well as building predictive models for decision making. Students who earned undergraduate credit for ECON 4085 may not take ECON 5085 for graduate credit. This course is co-listed with ECON 4085. Prerequisite(s): Admission to the MBA Program and BADM 5400.

ECON 5090 - Analytical Applications to Business (3)

An advanced course in predictive model applications. Students will be exposed to different models in financial economics, and datasets, to make informed business decisions. This course is co-listed with ECON 4090. Prerequisite(s): Admission to the MBA program, BADM 5400, and ECON 5085.

EDAD 5000 - Special Projects (1-5)

Individual or group study of selected problems/issues in special areas of interest. May be repeated for a maximum of 5 semester hours.

EDAD 5110 - Foundations of Education Administration (3)

An introductory course in school administration. This is a professional education course.

EDAD 5120 - School Law (3)

An introductory class in school law for teachers and administrators with a special emphasis upon Missouri school law. This is a professional education course.

EDAD 5130 - School Supervision (3)

An intensive study of the problems, processes and techniques in the evaluation, supervision, and improvement of the institutional programs at the elementary and secondary levels of the school. This is a professional education course.

EDAD 5150 - Ethics in Leadership (3)

This course provides advanced study in ethical systems of decision-making in educational leadership through philosophic/social theories and case studies. This is a professional education course.

EDAD 5310 - Curriculum for School Leaders (3)

A study of curriculum development and administration, focusing on the school leader's role in assessing, analyzing, implementing, and evaluating a data-driven school improvement process. This is a professional education course.

EDAD 5620 - K-12 Administration (3)

An introductory course where key aspects of school leadership are developed, including leadership styles, stakeholder communication, curriculum, data-driven school and teacher improvement, student supervision, organizational aspects such as staffing and master scheduling, special education, legal issues, and time management. This is a professional education course.

EDAD 5710 - Public School Finance (3)

A basic course in theory and practice of public school finance. This is a professional education course.

EDAD 5730 - School Personnel Administration (3)

The organization and administration of school personnel activities and related problems. This is a professional education course.

EDAD 5770 - Instructional Leadership and School Improvement (3)

This course will focus on the leader's role in creating a positive learning climate that maximizes teacher and student performance. This is a professional education course.

EDAD 5960 - Data Analysis for School Leaders (3)

This course examines educational research and data analysis within the context of school improvement process. Students will critically analyze school-related data to identify a problem or challenges related to student learning, research the problem, identify potential solutions, and develop a plan to address the problem. This is a professional education course.

EDAD 6120 - Advanced School Law (3)

School law for teachers and administrators plus a study of function and structure of courts and legal problems involving school finance, school property, and school board policy. Prerequisite(s): EDAD 5120. This is a professional education course.

EDAD 6160 - School and Community Relations (3)

Strategies and skills for communication, consensus building, community relations, and collaboration in various contexts involving parents/guardians, community members, and other stakeholders. This is a professional education course.

EDAD 6700 - School District Administration (3)

The administrative and related functions of the school superintendency. This is a professional education course.

EDAD 6710 - Advanced School Finance (3)

An advanced course in school finance and business management. Prerequisite(s): EDAD 5710. This is a professional education course.

EDAD 6720 - School Facilities (3)

School facilities: planning, construction, operation and maintenance. This is a professional education course.

EDAD 6730 - Administration of K-12 Curriculum (3)

Provides advanced study in district level curriculum construction and design for school administrators through curriculum theories, curriculum alignment, and curriculum coherence applications. This is a professional education course.

EDAD 6760 - Politics and School Leadership (3)

This course will focus on the district leader's role in working within the social, political and ethical dimensions of school administration. Particular emphasis is placed on policy development at the federal, state and local levels.

EDAD 6960 - Research Problems (3)

A research investigation of an approved problem in school administration resulting in a research paper. A prospectus is required. This is a professional education course.

EDAD 6969 - Internship in School Administration I (2)

One of two courses of a year-long practicum for initial principal degree candidates to be completed as a capstone of the program. May be repeated for additional certification. Prerequisite(s): Adviser consent. This is a professional education course.

EDAD 6971 - Internship in School Administration II (2)

One of two courses of a year-long practicum for initial principal degree candidates to be completed as a capstone of the program. May be repeated for additional certification. Prerequisite(s): Adviser consent. Spring, Summer. This is a professional education course.

EDAD 6972 - Internship: Central Office Administration (2)

Field experience course providing practicum in school administration at the district level. May be repeated up to 4 semester hours. Superintendency degree option requires two semesters of Internship. Prerequisite(s): Adviser consent. This is a professional education course.

EDFL 5000 - Special Projects (1-6)

Opportunities for individual or groups of students to pursue an emerging or special professional topic or issue. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Instructor consent.

EDFL 5100 - MAT Internship (3)

Designed to provide relevant and practical application of the teaching/learning process within the actual classroom. A portfolio is required, students must be admitted to the MAT program and provide a current, clear State Highway Patrol and FBI criminal background check and the student must be participating in a student teaching or be a contracted teacher in their certification area. Prerequisite(s): Students must participate in student teaching or be a contracted teacher, and must complete a minimum of 24 hours of MAT program of study prior to enrolling in EDFL 5100. This is a professional education course.

EDFL 5105 - Foundations of Teaching and Learning (3)

An analysis of the historical and theoretical foundations of education including philosophical, social and cultural influences along with ethical and legal issues. Emphases on critical thinking and problem solving surrounding curriculum planning, instructional strategies, and assessment. This course is co-listed with EDFL 4105. Prerequisite(s): Department consent. Corequisite(s): It is recommended that this course be taken concurrently with FLDX 2150, but not required. Fall, Spring, Summer. This is a professional education course.

EDFL 5120 - Advanced Foundations of Education (3)

Focuses on legal issues, school funding, educational delivery systems, societal influences, philosophy, and history of education. This is a professional education course.

EDFL 5130 - Middle School Foundations (3)

A graduate course which provides an introduction to the philosophy, organization, curriculum, instruction and classroom management strategies appropriate to the middle level learner. This is a professional education course.

EDFL 5150 - Methods for Teaching ESOL (3)

This course explores different approaches, methods, techniques and strategies for teaching English to Speakers of Other Languages (ESOL). Candidates are introduced to effective classroom practices that address the needs of culturally and linguistically diverse English learners in all contexts and settings. This course is co-listed with EDFL 4150. Prerequisite(s): Must be accepted to the MSE in ELL program and Advisor consent. Fall. This is a professional education course.

EDFL 5200 - Advanced Educational Psychology (3)

Provides the graduate student in education with Psychological principles, processes, theories, and research from learning, development, motivation, and measurements as they relate to the educative process. This is a professional education course.

EDFL 5205 - Methods and Materials for Literacy Enhancement (3)

Examination, comparison and evaluation of recent and traditional methods and materials for literacy development, with an emphasis on language and literature. This is a professional education course.

EDFL 5208 - Content Area Literacy (3)

Prepare teachers to address reading/literacy needs common to middle and high school, focusing on promoting basic and higher-order literacy within the content areas. This is a professional education course.

EDFL 5209 - Instructional Interventions for Reading Deficits in the Content Areas (3)

Prepare content area teachers to assess literacy deficits in students and design instructional interventions accordingly. Prerequisite(s): EDFL 5208. Fall. This is a professional education course.

EDFL 5210 - Assessment of Literacy Development (3)

Prepares the graduate learner with theories, materials, and procedures of formal and informal assessment of student development in literacy for curricular decisions. This is a professional education course.

EDFL 5211 - Introduction to Content Area Literacy (2)

Provides an introduction to content area literacy, or the reading, writing, and critical thinking in and across the various disciplines for secondary and K-12 certification areas, along with instructional interventions for students with reading deficits. This course is co-listed with EDFL 4210. Prerequisite(s): EDFL 2100 and FLDX 2150 and EDFL 2240. This is a professional education course.

EDFL 5212 - Literacy in the Disciplines I (2)

Designed to build on and advance the knowledge-base of EDFL 4210 including focus on discipline-specific applications of content area literacy unique to differing secondary subjects, for all students, including second language learners. This course is co-listed with EDFL 4212. Prerequisite(s): EDFL 2100 and EDFL 2240 and FLDX 2150; EDFL 5211 or concurrently. This is a professional education course.

EDFL 5220 - Practicum in Literacy Assessment (3)

Provides the graduate student with a clinical experience in formal and informal literacy assessments for K through 12th grade students. Prerequisite(s): EDFL 5210; UCM graduate students who have an approved program of study or school chair consent. This is a professional education course.

EDFL 5225 - Ethnographic Research (3)

Candidates are introduced to ethnographic research techniques as a way to gain an understanding of other cultural groups to better understand their unique cultural and linguistic
needs. Candidates will apply these techniques to a pilot study demonstrating their understanding of rigorous ethnographic methods. Prerequisite(s): Advisor consent. Fall.

EDFL 5230 - Practicum in Instructional Techniques for Literacy Enhancement (3)

Provides the graduate student with a clinical experience in curricular planning for literacy instruction for K through 12th grade students. Prerequisite(s): EDFL 5210; EDFL 5220; UCM graduate students who have an approved program of study or school chair consent. This is a professional education course.

EDFL 5240 - Advanced Language Arts Methods: Culture and Communication (3)

This course addresses methods for culturally responsive language arts pedagogy; the use of Information & Communications Technologies (ICT's) in literacy instruction; and the role of aesthetics in literacy/language arts teaching. This is a professional education course.

EDFL 5250 - Language Development in the Literacy Program (3)

This course supports graduates studies in reading education by focusing on the subjects of language acquisition and curriculum development to enhance literacy for all students. This is a professional education course.

EDFL 5260 - Evaluation of Abilities and Achievement in the Literacy Program (3)

This course examines the capacity and achievement assessment processes implemented in schools and their effects on curricular decisions in literacy education. This is a professional education course.

EDFL 5270 - Teaching Culturally and Linguistically Diverse Students (3)

The purpose of this course is to provide students with instructional strategies and methods of assessment for English language learners. Students will examine the theoretical and pedagogical consideration of second language teaching and learning. The course also provides candidates background on culturally responsive pedagogy. Fall, Spring. This is a professional education course.

EDFL 5300 - Advanced Assessment and Evaluation (3)

Provides instruction in the use and interpretation of standardized testing, the construction of formal and informal classroom assessment tools, and the interpretation of assessment results. This is a professional education course.

EDFL 5305 - Working with Immigrant and Displaced Students (3)

This course explores the social and educational integration of immigrant and refugee students and their subsequent achievement; the impact of age upon entry, language loss and
maintenance, accommodation and assimilation, straight-line and segmented assimilation theories, policy revisions; and the ways in which immigration affects student learning and
academic achievement. Prerequisite(s): Advisor consent. Fall.

EDFL 5320 - Curriculum Development and Assessment (3)

Examines curriculum, its development, and how to assess curriculum and learning. This is a professional education course.

EDFL 5330 - Classroom Discipline and Motivation (3)

Designed to help teachers advance their knowledge and skills in general classroom management and in helping the apathetic and/or behaviorally troubled student. This is a professional education course.

EDFL 5340 - Contemporary Instruction: Theory and Practice (3)

Foundations of the most recent research on instructional theory and practices. This is a professional education course.

EDFL 5400 - Differentiation in K-12 Learning Environments (3)

Provides an analysis of differentiated instruction and diverse learners in the K-12 learning environments. This is a professional education course.

EDFL 5410 - Advanced Curriculum Development and Assessment (3)

This course will allow teacher leaders to examine curriculum development and assessment issues from the broader context of the school, district, state, and federal perspective. This course will demonstrate to teacher leaders the importance of a systemic approach to school improvement through curricular alignment and balanced assessment to increase student learning outcomes. Prerequisite(s): Admission to Graduate Program. This is a professional education course.

EDFL 5440 - Middle School Curriculum and Instruction (3)

A course that provides graduate students with integrative and interdisciplinary middle school curriculum development. Prerequisite(s): Students must have a background check on file with the Office of Clinical Services and Certification. This is a professional education course.

EDFL 5460 - K-12 Curriculum for ELL (3)

This course offers an introduction to elementary through high school English Language Teaching (ELT) and learning. Students will design and develop curricular materials including lesson plans and teaching materials to be used with English Language Learners (ELL) of all english proficiency levels. Students will experiment with different theories of world language learning methods, assessment, and the use of technology in the English language classroom. Not available to those with credit in EDFL 4460. Spring.

EDFL 5530 - Sociolinguistics (3)

This course will provide students an introduction to the basic concepts, scope, and methodology of the science of sociolinguistics in its historical and descriptive aspects, including topics and issues in current sociolinguistic and applied linguistics studies. Not available to those with credit in EDFL 4530. Prerequisite(s): Advisor consent. Fall. This is a professional education course.

EDFL 5535 - Assessment of English Language Learners in K-12 (3)

This course explores assessment of English Language Learners (ELLs) in K-12 schools in the United States. Candidates are introduced to the core concepts and terminology concerning assessment, different forms of assessment, assessment procedures for identifying and placing ELLs in English Language Development (ELD) programs and exiting them from these programs, and the concept of fair, effective and appropriate language and content assessments for ELLs in K-12. This course is co-listed with EDFL 4535. Prerequisite(s): Must be accepted to the MSE in ELL program and must have advisor consent. This is a professional education course.

EDFL 5900 - Introduction to Research (3)

Overview and planning for graduate studies with an introduction and study of the major principles, tools, and techniques employed in educational research, including the development of a research prospectus. This is a professional education course.

EDFL 5950 - Introduction to the Study of Language for ESOL Teachers (3)

This course is an introduction to the study of language for English to Speakers of Other Languages (ESOL) teachers who teach in culturally and linguistically diverse K-12 settings. The course covers basic knowledge in phonetics, phonology, morphology, syntax, morpho-syntax, semantics, and pragmatics, and their implications for teaching different aspects and domains of English to English Language Learners (ELLs) in K-12 settings. Prerequisite(s): Must be accepted to the MSE in ELL program and must have advisor consent. This is a professional education course.

EDFL 5955 - Reading Interventions for English Language Learners (3)

This course explores the key principles of effective reading intervention programs for all students with reading deficits, discusses the differences between effective reading practices/interventions for ELL and non-ELL students, and provides effective reading intervention strategies that ESOL, classroom, and content area teachers can use with English Language Learners (ELLs) in K-12 schools. Prerequisite(s): Must be accepted to the MSE in ELL program and must have advisor consent.

EDFL 5960 - K-12 Clinical Field Experience with ELL (3)

Students will develop proficiency in the application of instructional strategies designed to support the needs of ELL in a K-12 classroom. Students will complete a minimum of 90 hours of supervised ELL instruction in an approved K-12 educational setting. Not available to those with credit in EDFL 4960. Prerequisite(s): Advisor consent. Spring This is a professional education course.

EDFL 5971 - K-12 Content Area Literacy (1)

Designed to build on and apply the knowledge-base of EDFL 5211 for teachers receiving certification in K-12 subject areas by focusing on discipline-specific theory-into-practice of content area literacy. This course is co-listed with EDFL 4971. Prerequisite(s): EDFL 2100 and EDFL 2240 and FLDX 2150; EDFL 5211 or concurrently. This is a professional education course.

EDFL 5972 - Literacy in the Disciplines II (2)

Designed to build on and apply the knowledge-base of EDFL 4210 and EDFL 4212, by focusing on discipline-specific theory-into-practice of content area literacy. The student work in this course, under unified learning objectives, becomes individualized based on the students' certification areas. This course is co-listed with EDFL 4972. Prerequisite(s): EDFL 2100, EDFL 2240, FLDX 2150; EDFL 5211 and EDFL 5212 or concurrently. This is a professional education course.

EDFL 6110 - Capstone (3)

Designed to synthesize information from MSE course work and classroom experiences within the actual classroom. Students must have a contracted teaching position in order to complete a summative portfolio assignment reflecting NBPT Standards. Prerequisite(s): Students must complete a minimum 24 hours in their MSE program of study, and must have been or currently are a contracted teacher. This is a professional education course.

EDFL 6220 - The Literacy Coach (3)

Designed to provide the knowledge, skills, and dispositions for literacy coaching.

EDFL 6240 - Supervision of the Literacy Program (3)

Examination of the supervisory problems concerned with literacy programs including program planning, program assessment, and effective instruction. This is a professional education course.

EDFL 6250 - Theoretical Applications: Scholarly Portfolio (3)

Instruction is provided to candidates as they write a comprehensive professional portfolio, prepare an oral presentation, and addressing national literacy standards. They are guided through the development of the portfolio, which must provide performance evidence of successful integration of research, theory and best practices in literacy education. Prerequisite(s): A minimum of 21 MSE in Literacy hours completed, or advisor approval (Capped at 4 student per instructor)

EDFL 6900 - Readings in Education (1-5)

For advanced students in education. Individual study and research regarding problems or areas of particular interest in education. A written report or reports will be required. May be repeated for a maximum of 5 semester hours.

EDFL 6960 - Research Problems (2)

Special investigation of an approved problem in the major field. A prospectus is required. May be repeated for a maximum of 6 semester hours. Prerequisite(s): EDFL 5900.

EDFL 6990 - Thesis (3)

Special investigation of an approved problem in classroom teaching resulting in a formal thesis. A prospectus is required. May be repeated for a maximum of 6 semester hours.

ET 5010 - Special Problems in Electronics Technology (1-3)

Meets individual student needs for additional research and/or laboratory experiences in the development of technical knowledge and skills in electronics technology. May be repeated for a maximum of 6 semester hours. An additional fee is associated with this course.

ECEL 5000 - Special Projects (1-6)

Opportunities for individual or groups of students to pursue an emerging or special professional topic or issue. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Instructor consent.

ECEL 5120 - Curriculum Design and Assessment (3)

This course prepares the teacher candidate to use formal and informal assessment strategies to evaluate student learning and to design units of instruction that meet individual needs of children. This course is co-listed with ECEL 4120. Prerequisite(s): Departmental consent required. This is a professional education course.

ECEL 5140 - Communication Arts Integration (4)

This course prepares the teacher candidate to apply a balanced communication arts program within a school setting. An integrative approach to teaching the communication arts will be emphasized as relevant to early and elementary literacy programs. This course is co-listed with ECEL 4140. Prerequisite(s): Department consent required. This is a professional education course.

ECEL 5170 - Advanced Foundations of Childhood Education (3)

Focuses on legal issues, school funding, educational delivery systems, societal influences, philosophy, and history of education in early and middle childhood.

ECEL 5240 - Instructional Leadership and Analysis (3)

Current leadership theory and analysis of teaching practices to promote Instructional leadership. Development and implementation of curriculum and instruction from an instructional leadership pedagogical analysis case study.

ECEL 5350 - Mentoring: The Instructional Coach Approach (3)

Designed to meet the practical needs of instructional teacher leaders who are responsible for coaching, leading, mentoring, and supporting teachers.

ECEL 5360 - Instructional Leadership Trends and Issues in Childhood Education (3)

Critical examination of current instructional leadership issues, historical and contemporary views that influence childhood education. May be repeated for a maximum of 6 semester hours.

ECEL 5400 - Classroom Management and Interactions (3)

This course seeks to provide the preservice teacher with authentic and applicable classroom management knowledge and strategies that enhance and enrich teaching and learning. This course is co-listed with ECEL 4400. Prerequisite(s): Departmental consent required. This is a professional education course.

ECEL 5710 - Early Childhood Education: A Constructivist Approach for 21st Century Thinkers (3)

Engaging young learners in active, meaningful learning experiences begin with culturally-appropriate and meaningful curriculum developed with children's background, experiences, prior knowledge and interests in mind. This course assists professional teachers in becoming instructional leaders in designing constructivist curriculum for engaging young minds. This is a professional education course.

ECEL 5715 - An Ecological Perspective of Family Engagement in Early Childhood Education (3)

Provides theoretical, ecological and empirical perspectives connecting families and educators in reciprocal and intentional ways to support quality early learning experiences. Family engagement that is built upon relationships and dialogue and provides a framework that supports educational growth is pertinent to learner understanding. Learners will analyze layers of inquiry to result in a complex and rich portrait of family engagement. This is a professional education course.

ECEL 5720 - Curriculum, Assessment, and Instruction (3)

With a clear focus of taking theory to practice, this course design addresses research-based curriculum, assessment, and instruction to promote documented growth and development of children. This is a professional education course.

ECEL 5725 - Early Childhood Business and Legal Issues (3)

In this course The professional teachers learn about the components of effective management including: systems and the importance of systems thinking; stakeholder analysis and management; the strategic planning process; how policies, procedures, and systems are interconnected; and tools for taking charge of program operations. The professional teachers understand how to manage a fiscally responsible early childhood business and be introduced to effective budgeting and accounting. The professional teachers develop the skills needed to promote a positive public image. The professional teachers learn how to create environments that welcome and support the learning of children and adults, as well as promote their health and safety. This is a professional education course.

ECEL 5730 - Exemplary Instructional Practices (3)

This course focus offers the accomplished teacher an opportunity to examine, explore, practice, and document current exemplary strategies, processes, and instructional leadership techniques that increase the effectiveness of learning opportunities for children in their schools and district.

ECEL 5740 - Play and Advocacy in the 21st Century (3)

Provides theoretical and empirical perspectives advocating for play in the 21st century classroom from multiple perspectives. The course provides a community for supporting the inclusion of play in the early childhood classroom through group dialogue, book club, and course content. The professional teacher will synthesize the positionality, perspectives and play-based content presented in order to apply learning to current and future educational experiences. The professional teacher will integrate and synthesize course content from related readings and/or additional research on play, relying on and supporting peers. This is a professional education course.

ECEL 5750 - Multicultural Education Beliefs, Curriculum and Pedagogy (3)

Multicultural Education in the early childhood classroom begins with the development of cultural competence leading to effective culturally responsive teaching beliefs and practices for today's diverse society. This course experience illuminates multicultural education as a vehicle to provide equitable education for young children. Graduate students will examine their own development of cultural competence, analyze multicultural education theories and ideals impacting early childhood education, identify, observe and synthesize culturally responsive teaching practices, and create a cultural competence and teaching/leadership personal plan. This is a professional education course.

ECEL 5780 - Making and Learning: STEM in Early Childhood Education (3)

Early childhood teachers can foster children's engagement and enjoyment of STEM but more importantly extend children's learning. This course will demonstrate ways to integrate STEM learning into the classroom and curriculum planning. Students will also learn the research and theory behind children's STEM learning. This is a professional education course.

ECEL 5785 - Teaching Strategies and The Classroom Environment for Active, Engaged Learning (3)

Connect with, motivate and promote learning success when you create active, engaged learning environments for young children! This professional teaching course enables early childhood teachers and leaders to acquire professional teaching skills needed for the 21st century learner. Teaching strategies, environmental and classroom resources and materials, as well as current research and practice relevant to inform professional growth will be applied. This is a professional education course.

ECEL 5790 - Collaborative Practice in Early Childhood Education (3)

Professional teaching in the 21st century requires knowledgeable and skillful adult learners, who critically reflect on the development and needs of early diverse learners, within an ever-changing world. Professional teachers integrate knowledge from a variety of sources, to create intellectually appropriate learning environments. This course presents central theories, research and practices for creating effective teaching and engaged, innovative learning environments. This is a professional education course.

ECEL 5800 - Internship in Number and Operations for Elementary Mathematics Specialists (1)

This course is a supervised mathematics teaching practicum in which the candidate acquires experience working with a range of student and adult learners including elementary students (e.g., primary, intermediate, struggling, gifted, English language learners) and elementary school teachers, both novice and experienced, in a variety of professional development settings. The mathematics focus of this practicum is number and operations concepts as outlined in the Common Core State Standards for Mathematics (2010). Corequisite(s): ECEL 5805.

ECEL 5805 - Number and Operations for Elementary Mathematics Specialists (3)

Designed to develop an understanding of the learning and teaching of pre-number concepts, counting and cardinality, and numbers and operations in base ten. Emphasis will be given to how children think about and learn these concepts and how they fi t into the elementary school curriculum. Corequisite(s): ECEL 5800.

ECEL 5810 - Internship in Rational Numbers and Proportional Reasoning for Elementary Mathematics Specialists (1)

This course is a supervised mathematics teaching practicum in which the candidate acquires experience working with a range of student and adult learners including elementary students (e.g., primary, intermediate, struggling, gifted, English language learners) and elementary school teachers, both novice and experienced, in a variety of professional development settings. The mathematics foci of this practicum is rational number and proportional thinking concepts as outlined in the Common Core State Standards for Mathematics (2010). Corequisite(s): ECEL 5815.

ECEL 5815 - Rational Numbers and Proportional Relationships for Elementary Mathematics Specialists (3)

Designed to develop an understanding of the learning and teaching of rational numbers and ratio and proportional relationships. Emphasis will be given to how children think about and learn these concepts and how they fit into the elementary school curriculum. Corequisite(s): ECEL 5810.

ECEL 5820 - Internship in Algebraic Reasoning for Elementary Mathematics Specialists (1)

This course is a supervised mathematics teaching practicum in which the candidate acquires experience working with a range of student and adult learners including elementary students (e.g., primary, intermediate, struggling, gifted, English language learners) and elementary school teachers, both novice and experienced, in a variety of professional development settings. The mathematics focus of this practicum is algebraic reasoning concepts as outlined in the Common Core State Standards for Mathematics (2010). Corequisite(s): ECEL 5825 .

ECEL 5825 - Algebraic Reasoning for Elementary Mathematics Specialists (3)

Focuses on the content and complexities of teaching and assessing algebraic reasoning in grade 1-6 settings. Content will include an examination of the representation and analysis of mathematical situations and structures. Attention will be given to patterns, functions, and the transition from arithmetic to algebra. Corequisite(s): ECEL 5820.

ECEL 5830 - Internship in Geometry and Measurement for Elementary Mathematics Specialists (1)

This course is a supervised mathematics teaching practicum in which the candidate acquires experience working with a range of student and adult learners including elementary students (e.g., primary, intermediate, struggling, gifted, English language learners) and elementary school teachers, both novice and experienced, in a variety of professional development settings. The mathematics focus of this practicum is geometry and measurement concepts as outlined in the Common Core State Standards for Mathematics (2010). Corequisite(s): ECEL 5835.

ECEL 5835 - Geometry and Measurement for Elementary Mathematics Specialists (3)

Designed to develop an understanding of the learning and teaching of geometry and measurement. Emphasis will be given to how children think about and learn these concepts and how they fit into an elementary mathematics curriculum. Corequisite(s): ECEL 5830.

ECEL 5840 - Data and Probability for Elementary Mathematics Specialists (3)

Designed to develop an understanding of probabilistic reasoning and the collection, exploration, and analysis of data. Emphasis will be given to how children think and learn about these concepts and how they fit into the elementary school curriculum.

ECEL 5850 - Instructional Leadership to Enhance Children's Physical & Social World (3)

The accomplished teacher examines research-based techniques, effective materials, and resources to create, promote, and advocate for a positive physical and social world, which highlights children's developmentally appropriate success. Prerequisite(s): Admission to Teacher Education Program; EDFL 2240 or equivalent.

ECEL 5855 - Foundations of Mathematical Leadership for Elementary Mathematics Specialists (2)

This introductory course provides opportunities for participants to develop knowledge and understanding of leadership principles and the process of continuous improvement as it relates to the roles and responsibilities of elementary mathematics specialists.

ECEL 5860 - Mathematical Mentoring and Coaching (3)

This leadership course focuses on mathematics education research and practice related to teamwork, interaction, communication, conflict resolution, and leadership in elementary schools. Candidates will examine effective strategies for influencing and facilitating school/district improvement (e.g., mentoring and observing colleagues, conducting professional development, and making data-informed decisions to improve student learning school and district-wide) collaborating with colleagues and administration. Prerequisite(s): ECEL 5855.

ECEL 5870 - Computer Science for K-6 Learning (3)

Strengthening K-6 curricula by integrating computer science concepts, helping students become proactive learners, problem solvers, computational thinkers, and digital citizens. Summer.

ECEL 5890 - Mathematics Curriculum, Assessment, and Instruction (3)

This course prepares the elementary and early childhood teacher candidate to plan effective mathematics instruction to meet individual student needs, use formative assessments to evaluate student understanding, and apply this evidence to inform and improve future instruction. This course is co-listed with ECEL 4850. This is a professional education course.

ECEL 5920 - Childhood Research and Development (3)

Action-based, qualitative, quantitative, and educational research methodologies; inferential and differential statistics. Research course designed to facilitate action-research and advanced research methods for instructional leaders.

ECEL 6800 - Synthesis of Practice for Childhood Educators (3)

Designed to provide relevant and practical application of the teaching/learning process within the early and middle childhood classroom. Prerequisite(s): ECEL 5920; taken during the last 12 hours of the program of study, but prior to the Capstone (ECEL 6810).

ECEL 6810 - MSE Capstone Project for Childhood Educators (3)

Designed to synthesize information from MSE coursework and classroom experiences culminating with a summative capstone project assignment. Prerequisite(s): ECEL 6800; taken during the last 12 hours of the program of study, immediately following ECEL 6800.

ECEL 6900 - Readings in Elementary Education (3)

An individual study and research of a particular problem or area in elementary education. A written summary will be required.

ECEL 6990 - Thesis (3)

Designed to develop understandings, skills, and outlooks to conduct original, independent research in elementary education that results in a formal thesis. May be repeated for a maximum of 6 semester hours.

ENGL 5000 - Introduction to Graduate Study in Language and Literature (3)

Research techniques, writing the critical essay, bibliography, research paper format. Required for MA-English.

ENGL 5010 - Introduction to Graduate Study-TESL (3)

An introduction to understanding research in the fields of linguistics, applied linguistics, and teaching English to speakers of other languages. Focuses on identifying major research trends, finding articles, and writing essays on research in these fields.

ENGL 5110 - Grammar for Teaching English as a Second Language (3)

Examination of the morphological and syntactic structures of English and exploration of how to teach them to speakers of other languages. This is a professional education course.

ENGL 5120 - Second Language Acquisition (3)

Survey of second-language acquisition research and theories and their implications for pedagogy. Students who earned undergraduate credit in ENGL 4835 may not take ENGL 5120 for graduate credit. This course is co-listed with ENGL 4835. This is a professional education course.

ENGL 5210 - Studies in English Literature (3)

Advanced study and class discussions in a selected area of English literature. Special area of emphasis to be announced each semester. May be repeated as topic areas change.

ENGL 5220 - Studies in American Literature (3)

Advanced study and class discussions in a selected area of American literature. Special area of emphasis to be announced each semester. May be repeated as topic areas change.

ENGL 5230 - Studies in Theory and Criticism (3)

Advanced study in selected areas of theory and criticism. Special area to be announced each semester. May be repeated as topic areas change.

ENGL 5240 - Studies in Writing and Rhetoric (3)

Advanced study and class discussions in a selected area of writing studies. Special area of emphasis to be announced each semester. May be repeated as topic areas change.

ENGL 5250 - Applied Writing With New Media (3)

Theoretical and practical strategies of writing and teaching writing with new media. Prerequisite(s): ENGL 5850.

ENGL 5260 - Seminar in Professional Writing for Teachers (3)

Creation and submission for publication of writing that grows out of teacher inquiry projects. Prerequisite(s): ENGL 5850.

ENGL 5310 - Chaucer (3)

Life and times of Chaucer with extensive reading in his major works. This course is co-listed with ENGL 4310.

ENGL 5330 - Renaissance English Writers (3)

Literary figures of the Elizabethan and Jacobean periods, excluding Shakespeare. This course is co-listed with ENGL 4330.

ENGL 5340 - Old and Middle English Literature (3)

Literary genres and contributions from Beowulf to 1500 (excluding Chaucer). This course is co-listed with ENGL 4340.

ENGL 5360 - Shakespeare (3)

Study seven or more Shakespearean plays, including comedies, histories, tragedies and romances, with attention to Renaissance backgrounds, literary analysis, and theatrical traditions. This course is co-listed with ENGL 4360.

ENGL 5390 - Special Topics in Medieval and Renaissance Literature (3)

Study, analysis, and interpretation of special topics in Medieval and Renaissance literature. This course is co-listed with ENGL 4390.

ENGL 5410 - Linguistics (3)

Introduction to the study of language as a system of human communication. This course is co-listed with ENGL 4110. This is a professional education course.

ENGL 5420 - Language and Culture (3)

Exploration of the nature of culture and its impact on perceptions, communication, behavior, and ways of learning with emphasis on its influence on school achievement. This course is co-listed with ENGL 4120. This is a professional education course.

ENGL 5450 - The Age of Milton (3)

English poetry, prose, and drama of the Puritan and Restoration times. This course is co-listed with ENGL 4450.

ENGL 5460 - Wits and Satirists: 1660-1800 (3)

Fiction, poetry, essays and drama during the times of Pope and Johnson. This course is co-listed with ENGL 4460.

ENGL 5500 - Nineteenth Century English Novel (3)

Representative novels from Austen through Gaskell. This course is co-listed with ENGL 4500.

ENGL 5510 - Romantic Poets and Essayists (3)

Major poets and essayists of the English Romantic period. This course is co-listed with ENGL 4510.

ENGL 5540 - Victorian Poetry (3)

Representative poetry of the British Victorian period. This course is co-listed with ENGL 4540.

ENGL 5560 - British Women Writers (3)

Study of major works by British women writers, with an introduction to feminist criticism. This course is co-listed with ENGL 4560.

ENGL 5590 - Special Topics in 19th Century Literature (3)

Study, analysis, and interpretation of special topics in nineteenth century literature. This course is co-listed with ENGL 4590.

ENGL 5610 - American Renaissance (3)

The works of Emerson, Hawthorne, Thoreau, and Melville. This course is co-listed with ENGL 4610.

ENGL 5620 - Early American Literature (3)

Major figures of colonial, federal, and early nineteenth-century literature. This course is co-listed with ENGL 4620.

ENGL 5640 - American Realists and Naturalists (3)

Works of Twain, Howells, James, Dreiser, Chopin, and Crane. This course is co-listed with ENGL 4640.

ENGL 5660 - Women Writers of the United States (3)

Study of major works by women writers of the United States, with an introduction to feminist criticism. This course is co-listed with ENGL 4660.

ENGL 5670 - Ethnic American Literature (3)

A survey of America's old and new ethnic writing, with particular emphasis on Native, Asian, Hispanic, and African American writers and a general emphasis on other groups. This course is co-listed with ENGL 4670. This is a professional education course.

ENGL 5680 - African American Literature (3)

A survey of African American writers from the Colonial period to the present with emphasis on twentieth-century writers. This course is co-listed with ENGL 4680. This is a professional education course.

ENGL 5690 - Special Topics in Traditionally Underrepresented Literature (3)

Study, analysis, and interpretation of special topics in traditionally underrepresented literature. This course is co-listed with ENGL 4690.

ENGL 5700 - British Fiction 1890 to Present (3)

Representative fiction by major British authors from 1890 to the present. This course is co-listed with ENGL 4700.

ENGL 5710 - Modern American Fiction (3)

Representative fiction by major American writers from 1900 to the present. This course is co-listed with ENGL 4710.

ENGL 5720 - Modern British Poetry (3)

British poetry of the twentieth century. This course is co-listed with ENGL 4720.

ENGL 5730 - Modern American Poetry (3)

American poetry of the twentieth century. This course is co-listed with ENGL 4730.

ENGL 5750 - Postcolonial Literature (3)

Twentieth and twenty-first century literature of countries which were formerly European colonies. This course is co-listed with ENGL 4750.

ENGL 5790 - Special Topics in 20th and 21st Century Literature (3)

Study, analysis, and interpretation of special topics in twentieth and twenty-first century literature. This course is co-listed with ENGL 4790.

ENGL 5800 - TESL Methods (3)

Exploration of past and current practices in planning, implementing, and managing instruction of second language learners. This is a professional education course.

ENGL 5820 - Assessment and Professionalism in TESL (3)

Exploration of guidelines for ESL services, support, and advocacy; standards for achievement; and interpretation of formal and informal assessments of

students, courses, and programs. This is a professional education course.

ENGL 5850 - Invitational Institute: Teachers Teaching Teachers (3)

Summer Invitational Institute for professional educators, using the National Writing Project "teachers teaching teachers" model for professional development.

ENGL 5860 - Teaching English as a Second Language I: The Spoken Language (3)

Examination of the structures of oral English and the processes involved in its production and comprehension in relationship to the teaching and learning of ESL. Prerequisite(s): ENGL 5120 and ENGL 5410 or both concurrently or instructor consent. This is a professional education course.

ENGL 5870 - Teaching English as a Second Language II: The Written Language (3)

Examination of the structures of written English and the processes involved in its production and comprehension in relationship to the teaching and learning of ESL. Prerequisite(s): ENGL 5110 or concurrently. This is a professional education course.

ENGL 5880 - The TESL Capstone (3)

Special investigation of an approved topic in language learning, linguistics, or applied linguistics culminating in a paper, project, or portfolio.

ENGL 5890 - Practicum in English as a Second Language (3)

Supervised experience in planning and implementing standards-based ESL and content instruction under the direction of a TESL faculty member. Prerequisite(s): ENGL 5410, ENGL 5120, and EDFL 5150. This is a professional education course.

ENGL 5900 - Graduate Portfolio (1)

Compilation of three student papers that best reflect student growth and development in the MA program, along with a reflection paper on that development. Fall, Spring, Summer.

ENGL 5920 - Research Problems (3)

Special investigation of an approved topic in language or literature culminating in a paper of at least 30 pages.

ENGL 5950 - Special Topics in TESL (3)

Recent developments, theories, and/or methodologies in teaching English as a second language.

ENGL 5960 - Advanced Teaching Methods for TESL (3)

Examination of the structures of oral and written English and the processes involved in its production and comprehension in relationship to the teaching and learning of ESL. Prerequisite(s): EDFL 5150, ENGL 5120, and ENGL 5410 or concurrently.

ENGL 5970 - Culturally Responsive Teaching (3)

Introduces student to the historical and philosophical foundations influencing culturally responsive teaching in our democratic society, how personal biases can impact educational choices, and the development of culturally relevant curricula.

ENGL 5990 - Special Projects in English (1-3)

Individualized or group study under the supervision of department faculty. This course is co-listed with ENGL 4990. May be repeated for a maximum of 6 semester hours.

ENGL 6940 - Thesis (3)

Special investigation of an approved topic in language and literature resulting in a formal thesis. May be repeated for a maximum of 6 semester hours.

ENGT 5032 - Hydraulics and Pneumatics (3: 2 lecture, 1 lab)

This is an introductory course in fluid power. Emphasis is placed on fluid power principles and computational theory along with their practical application through lectures and laboratory experiences. This course is co-listed with ENGT

4032. Prerequisite(s): MATH 1111. An additional fee is associated with this course.

ENGT 5221 - Manufacturing Problem Solving (3: 2 lecture, 1 lab)

A micro-level look at issues that directly affect processes, procedures, and management within the manufacturing industry. This course is co-listed with ENGT 4221. An additional fee is associated with this course.

ENGT 5520 - Robotics and Automation (3: 3 lecture, 0 lab)

Automated manufacturing equipment, computer integrated manufacturing systems, and the use of industrial robots. Computer programming background recommended. This course is co-listed with ENGT 4520. An additional fee is associated with this course.

ENGT 5562 - Computer Numerical Control Applications (3)

Advanced applications in computer numerical control. Students will apply their knowledge of manufacturing processes and CNC programming in completing advanced projects. Prerequisite(s): ENGT 3562. An additional fee is associated with this course.

ENGT 5580 - Quality Systems Engineering (3)

The principles and practices of Total Quality Managements and the decision making tools and techniques utilized by professionals in today's successful industries. This course is co-listed with ENGT 4580. An additional fee is associated with this course.

ENGT 5590 - Computer Integrated Manufacturing (CIM) (3)

Emphasis on product planning and engineering, production planning, control, and execution. Includes integration of computer numerical control (CNC) machines, robotics, material handling, and quality control. This course is co-listed with ENGT 4590. Prerequisite(s): ENGT 5520. An additional fee is associated with this course.

ESE 5350 - Entrepreneurship and Social Enterprise Special Problems (1-3)

Individual work under supervision of a Faculty or Staff member. Problems may be undertaken in any phase of business or social enterprise and may include entrepreneurial research. Prerequisite(s): Adequate preparation in the area to be studied.

FCSE 5000 - Special Projects in Family and Consumer Sciences (1-3)

Investigation of contemporary problems and issues in family and consumer services. This course is co-listed with FCSE 4000. May be repeated for a maximum of 6 semester hours.

FCSE 5160 - Seminar in Family Economics and Management (2- 3)

Intensive investigation and discussion of specific problems in family economics or management. Research problems may lead to a thesis. Prerequisite(s): Instructor consent.

FCSE 5740 - Current Topics in Family and Consumer Sciences Education (2)

Changes evolving in our society which affect the teaching of family and consumer sciences. May be repeated for a maximum of 6 semester hours. Prerequisite(s): B.S. in Ed. degree in home economics.

FCSE 5760 - Seminar in Family and Consumer Sciences (2-3)

Studies in specialized area problems in family and consumer sciences with emphasis on individual investigation. May be repeated for a maximum of 6 semester hours.

FCSE 5840 - Methods of Teaching Family and Consumer Sciences (3)

Prepares the student to teach in family and consumer sciences by assisting in the development of instructional methods and techniques for student-oriented classroom instruction. This course is co-listed with FCSE 4740. Prerequisite(s): Admission to Teacher Education Program, 15 semester hours of

Family and Consumer Sciences and FCSE 3710 with a grade of C or better. This is a professional education course.

FCSE 6080 - Research in Family and Consumer Sciences (2-3)

Independent investigation of a specific problem. May be repeated for a maximum of 6 semester hours. Prerequisite(s): CTE 5130 or EDFL 5900 or equivalent.

FAME 5410 - Materials for Interior Furnishings (3)

A concentrated study of materials used for residential and commercial environments that include window and wall coverings, upholstered furniture, floor coverings, linens and accessories. Textile fabrics appropriate for various architectural period styles will be covered as well as trends for sustainable products. This course is co-listed with FAME 4410. An additional fee is associated with this course.

FAME 5414 - Advanced Technical Problems in Fashion (1-3)

Individual or group work on advanced technical problems in Fashion/Apparel Merchandising. Provide exploration of content not available through normal course offerings. This course is co-listed with FAME 4414. May be repeated for a maximum of 6 semester hours. Prerequisite(s): minimum 2.50 Cumulative GPA, written contract/proposal with objectives/learning competency and written school consent. An additional fee is associated with this course.

FAME 5424 - Pattern Design (3)

The design and construction of garments from a basic pattern, using the principles of art as applied to dress design. This course is co-listed with FAME 4424. Prerequisite(s): FAME 3430 and 3 semester hours of clothing construction. An additional fee is associated with this course.

FAME 5425 - Fashion Entrepreneurship (3)

Students will create a business plan based on fashion industry trends and consumer needs. Current computer software will be used to create retail sales plans and analyze profit/loss statements. Fashion retail personnel needs and store operations and management strategies will also be addressed. This course is co-listed with FAME 4425. Prerequisite(s): FAME 3435.

FAME 5433 - Sourcing in the Global Market (3)

An analysis of economic, political, and cultural systems affecting international textile and apparel trade. An emphasis on sourcing, corporate social responsibility, technology, government policies, and relationships in the global fashion marketplace. This course is co-listed with FAME 4433.

FAME 5442 - Advanced Textiles (3)

Comparative study of factors influencing the properties of fibers and fabrics as well as the performance of textile and apparel products. Lab period is used to test textile performance with standardized test procedures. This course is co-listed with FAME 4442. Prerequisite(s): CHEM 1104 and FAME 2442. An additional fee is associated with this course.

FAME 5445 - Senior Seminar in Fashion and Apparel Merchandising (3)

Philosophy, current issues and trends in fashion and apparel merchandising will be covered. Focus on problem-solving styles leading to group and individual research problems. This course is co-listed with FAME 4445. An additional fee is associated with this course.

FAME 5450 - Special Problems in Textiles and Clothing (2-3)

Group or individual research, creative endeavors, entrepreneurship or service projects to address current trends and careers in the fashion industry. Research component required. This course is co-listed with FAME 4450. May be repeated for a maximum of 6 semester hours.

FAME 5460 - Seminar in Textiles and Clothing (2-3)

Investigation and discussion of particular problems in fashion and apparel merchandising. Students may conduct minor research studies of a professional nature which may lead to a thesis.

FAME 5490 - Internship in Fashion and Apparel Merchandising (1-3)

Students will participate in a management training program to broaden intellectual awareness while gaining practical fashion industry experience. Performance-based goals and learning experiences will be evaluated by a company supervisor in coordination with the faculty instructor. This course is co-listed with FAME 4490. May be repeated for a maximum of 6 semester hours. Prerequisite(s): FAME 2440.

FLDX 5468 - Student Teaching I (1-12)

Taken by students seeking initial certification during their culminating clinical experience. This course is co-listed with FLDX 4468. This is a professional education course.

FIN 5800 - Managerial Finance (3)

Topics covered will include capital expenditures, capital structure, cost of capital, dividends, mergers, concept of income maintenance, and, working capital. Cases in managerial finance and individual readings will supplement textbook learning. Prerequisite(s): Admission to the MBA program and BADM 5400.

FIN 5805 - Short-Term Financial Management (2)

Comprehensive overview of short-term financial management, working capital, and treasury management. Students will also apply statistical tools in the analysis of working capital management. Prerequisite(s): Admission to the MBA Program and BADM 5400.

FIN 5817 - Managing Financial Derivatives (3)

Applied analysis of pricing and hedging techniques for managing investments in derivative contracts (forward, futures, options, and swap contracts) involving the application of concepts and strategies to case problems and computer simulations. Students who earned undergraduate credit for FIN 4817 may not take FIN 5817 for graduate credit. This course is co-listed with FIN 4817. Prerequisite(s): Admission to the MBA program and BADM 5400.

FIN 5820 - Seminar in Finance (3)

The financial problems of profit seeking corporations are examined. Consideration of such matters as operations, obtaining capital, and reorganization. Prerequisite(s): 6 semester hours credit in finance.

FIN 5825 - International Finance (3)

This course will provide an in-depth coverage of international trade and the multinational corporation, and the financing of imports and exports. FIN 5825 cannot be taken for credit if FIN 4820 was taken for undergraduate credit. Prerequisite(s): Admission to the MBA program and BADM 5400.

FIN 5830 - Advanced Financial Institutions and Markets (3)

In-depth study of managing risk and return in contemporary financial institutions with special emphasis on methods and markets through which these risks are managed. Prerequisite(s): Admission to the MBA program, BADM 5400, and FIN 5800.

FIN 5831 - Student Managed Investment Fund (3-6)

The course provides students advanced hands-on experience in stock analysis and asset valuation at a professional level, selecting stocks and investing 'real money'. This course is co-listed with FIN 4831. May be repeated with consent of instructor. Prerequisite(s): Consent of the instructor.

FIN 5840 - Investment Analysis and Practice (3)

Theoretical and applied analysis of securities and derivatives, and valuation, construction and risk hedging of portfolios. Involves use of computer software, supplemental readings, and cases. Prerequisite(s): Admission to the MBA program, BADM 5400, and FIN 5800.

FIN 5880 - Bank Management (3)

Study and analysis of the problems of management of commercial banks with an emphasis on investment and loan portfolios. This course is co-listed with FIN 4880. Prerequisite(s): Admission to the MBA program, BADM 5400, and FIN 5830. Fall.

FIN 6860 - Readings in Finance (1-3)

Selected readings in finance; e.g., financial management, commercial banking, investment banking, or investment. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Six semester hours credit in finance.

FOOD 5326 - Experimental Foods (3: 2 lecture, 1 lab)

An experimental approach to the study of factors which influence the behavior of foods. Group and individual experiments. This course is co-listed with FOOD 4326. Prerequisite(s): FOOD 2322 with a grade of C or better. An additional fee is associated with this course.

GSS 5250 - Feminist Theory and Method (3)

Exploration of the various feminist approaches to knowledge, both theoretical and methodological.

GSS 5450 - Critical Questions in Gender and Sexuality (3)

Advanced seminar exploring how gender and sexuality have served as a central conceptual platforms for societal meaning and debates, raising questions about institutional norms, power, identity, bodies and knowledge.

GSS 5810 - Special Projects in Gender & Sexuality Studies (1-4)

Individual study or one-time courses focused on specialized issues in Gender and Sexuality. This course is co-listed with GSS 4810. May be repeated for a maximum of 9 semester hours.

GEOG 5001 - GeoVisualizing Spatial Data (3)

Students will use ESRI made ArcGIS use to geovisualize spatial data in relations to ground. It covers basic principles of lettering, spatial data display, color manipulation techniques, data exploration and map animation.

GEOG 5201 - Cartography (3)

Techniques and tools of map construction including gathering, manipulation, and representation of geographic data. Emphasis on thematic mapping and maps as communication. Traditional and electronic technologies stressed. Prerequisite(s): GEOG 2212 or EASC 1004. An additional fee is associated with this course.

GEOG 5265 - Urban Geography (3)

Location of cities as related to other geographic phenomena. Urban units are analyzed with respect to general location theory. This course is co-listed with GEOG 4265.

GEOG 5291 - Conservation of Natural Resources (3)

Problems of availability, production, exploitation, appraisal, distribution, and renewability of natural resources. This course is co-listed with GEOG 4291.

GEOS 5010 - Digital Image Processing (3)

Introduces the principles of remote sensing, aerial photographic techniques, photogrammetry, multispectral, hyperspectral and thermal imaging and RADAR and LIDAR image analysis. More emphasis on the geographical applications of remote sensing. This course will help students integrating raster with vector data.

GEOS 5020 - Principles of Geographic Information Systems (3)

Fundamentals of geographic techniques such as georelational and object- based data models, spatial features. This course will help students link between aspatial and spatial information for statistical analysis. Emphasis will be on vector and data integration and their analysis.

GEOS 5021 - Advanced Geographic Techniques (3)

Advanced aspects of geographical techniques such as transportation network and business network analysis, modeling in geomarketing, spatial modeling, 3D modeling, data integration and analysis using geogspatial statical techniques. This course will help students develop leadership skills. Emphasis on planning, research, and proposal developments.

GEOS 5200 - Readings in Geography (1-3)

Selected readings in geoscience under the guidance of the instructor. Class sessions may be required as part of the program. May be repeated for a maximum of 3 semester hours. Prerequisite(s): Instructor consent.

GEOS 5210 - Problems in Geography (1-3)

An in-depth study of the major problems in geoscience. May be repeated for a maximum of 3 semester hours. Prerequisite(s): Instructor consent.

GEOS 5221 - Applications of Geographic Information Systems (GIS) (3)

Advanced aspects of GIS including polygon overlay, network analysis, classification of digital data by methods such as Principal Components Analysis, Parallel Piped and Minimum Distance to Means Classifiers, Global Positioning Systems (GPS). Introduction to programming in Avenue.

GRAP 5500 - Special Problems in Graphics (2-6)

Meets individual student needs for additional research and/or laboratory experiences in the development of technical knowledge and skills in the areas of graphics. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Written contract/proposal with objectives and written school consent. An additional fee is associated with this course.

HLTH 5310 - Drugs: Addiction to Recovery (3)

Use and abuse of alcohol and drugs; current problems relative to drug use, abuse, and control; programs in education, law enforcement, and community agencies. This course is co-listed with HLTH 4310.

HIST 5300 - Missouri History (3)

Missouri history from earliest times to the present. This course is co-listed with HIST 4300.

HIST 5307 - American Colonial History 1607-1763 (3)

American political, economic, and cultural institutions in the colonial period. This course is co-listed with HIST 4307.

HIST 5309 - The African-American in American History (3)

Economic, political, and social development of the African-American in the United States. This course is co-listed with HIST 4309.

HIST 5310 - Readings in History (1-6)

Independent readings in selected fields of history. Offered only on a limited basis. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Nine semester hours of history and graduate adviser's consent.

HIST 5311 - Revolution and Republic (3)

American political, economic, and cultural institutions from 1763 to the War of 1812. This course is co-listed with HIST 4311.

HIST 5314 - Jacksonian America (3)

Cultural, social, political and economic development of the United States from the War of 1812 to 1848. Students who earned undergraduate credit for HIST 4314 may not take HIST 5314 for graduate credit. This course is co-listed with HIST 4314.

HIST 5315 - The Civil War and Reconstruction (3)

The causes of the war, the social, political, economic and military impact of the war; and the post-war reconstruction process. Students who earned

undergraduate credit for HIST 4315 may not take HIST 5315 for graduate credit. This course is co-listed with HIST 4315.

HIST 5316 - The American Military Experience (3)

Selected topics and themes in American military history. Not eligible for credit if student has received credit for HIST 4316.

HIST 5317 - The Jazz Age and the Great Depression (3)

The social, cultural and political trends of the Jazz Age, the social and economic impact of the Great Depression, and the advent of the New Deal. This course is co-listed with HIST 4317.

HIST 5318 - The Gilded Age and Progressive Era (3)

The course examines the political and social changes in the United States from 1877 to 1920 that contributed to the emergence of modern America. This course is co-listed with HIST 4318.

HIST 5320 - History of the American West (3)

Explores the economic, political, cultural, social, and environmental history of the trans-Mississippi West. This course is co-listed with HIST 4320.

HIST 5322 - US History Since 1945 (3)

Examines the social, cultural, and political history of the United States from 1945 through the twentieth century. This course is co-listed with HIST 4322.

HIST 5324 - Truman and Civil Rights (3)

Analyzes the civil rights record of President Harry S. Truman. This course is co-listed with HIST 4324.

HIST 5327 - African American Women, Gender, and Girlhood (3)

Focuses on the history and development of black women and girls from their African origins to the present. This course is co-listed with HIST 4327.

HIST 5328 - History of Flight (3)

Examines manned flight from the eighteenth century to the present, with additional topics covering the basic biological and physical mechanics of flight. Students who earned undergraduate credit for HIST 4328 may not take HIST 5328 for graduate credit. This course is co-listed with HIST 4328.

HIST 5330 - The United States and World War II (3)

The rise of totalitarianism in the 1930's, America's reaction to totalitarianism, the war in Europe 1939-41 and America's reaction, America in World War II, the impact of World War II upon American society, and the post-war settlement and the Cold War. This course is co-listed with HIST 4330.

HIST 5337 - Nature's Nation: American Environmental History (3)

This course examines how humans and nature have interacted in American history, from the last Ice Age until the present day. It focuses on how these relationships have shaped the economic, political, cultural, and social history of the area that is now the United States. Not eligible for credit if credit already received for HIST 4337.

HIST 5340 - Public History (3)

Defines public history and its constituents, and it surveys the job experiences of practitioners in the fields of archives, museums, and historic sites. This course is co-listed with HIST 4340.

HIST 5341 - Digital Archives and Digital Storytelling (3)

This course will define digital archives and digital storytelling and explain how digital archives can be utilized in digital storytelling. Students will be able to demonstrate proficiency in finding and successfully using digital archives in digital storytelling by completing either a digital public history or scholarly digital storytelling project where they research and analyze information from digital archival resources and create their own digital projects. Fall, Spring, Summer.

HIST 5350 - US Colloquium (3)

Advanced study and class discussions in United States history. Special area of emphasis to be announced each semester by assigned instructor. May be repeated as areas change for a maximum of 12 semester hours.

HIST 5351 - Special Projects in Public History (3)

Study, interpretation, and discussion of special topics and problems in public history.

HIST 5400 - Historical Methods and Historiography (3)

A survey of the skills essential to the research and writing of history, including the systems, interpretations, and contributions of historians to the discipline. Open only to history and social science majors.

HIST 5410 - Women in America (3)

Women in America from colonial times to the present with emphasis upon the nineteenth century feminist movement and the recent twentieth century women's rights movement. This course is co-listed with HIST 4310.

HIST 5411 - The Renaissance and Age of Exploration (3)

An analysis of the relationships between the Italian Renaissance, Iberian exploration, and the forging of the first global economy up to the mid-sixteenth century. This course is co-listed with HIST 4411.

HIST 5412 - Wars of Reformation and Religion (3)

An exploration of the religious, social, and political causes and effects of the sixteenth century crisis in Western Christendom and the warfare to 1648. This course is co-listed with HIST 4412.

HIST 5414 - The Age of the French Revolution and Napoleon (3)

The origins, development, and consequences of the French Revolution and the Napoleonic Empire in France and in the larger European world, with special reference to the broad transformation of the entire continent during the eighteenth century. This course is co-listed with HIST 4414.

HIST 5415 - Revolutionary Europe (3)

A survey of the political, social, economic, and cultural transformation of Europe in a century of revolution, from the ancient regime to World War I. This course is co-listed with HIST 4415.

HIST 5416 - Europe in Crisis: 1900-Present (3)

Examines the political, diplomatic, and strategic trends of the major European states from World War I through the present.

HIST 5420 - World War I (3)

An historical overview of the causes, course, and consequences of World War I, especially from the European perspective. This course is co-listed with HIST 4420. Fall.

HIST 5423 - Rule Britannia!: The Making and Eclipse of a Great Power (3)

The political, economic, and cultural history of Great Britain and the Empire since the Age of Reason. This course is co-listed with HIST 4423.

HIST 5431 - Topics in German History (3)

Selected topics and themes in German history. This course is co-listed with HIST 4431. This course may be repeated for a maximum of 6 semester hours.

HIST 5432 - Nazi Germany and the Holocaust (3)

Traces the rise of Nazism, World War II, the Final Solution, and their legacies. This course is co-listed with HIST 4432.

HIST 5442 - The Soviet World (3)

Russia and Eastern Europe from World War I through the collapse of communism.

HIST 5450 - World Colloquium (3)

Advanced study and class discussions in World (Non-US) history. Special area of emphasis to be announced each semester by assigned instructor. May be repeated as areas change for a maximum of 12 semester hours. Fall, Spring, Summer.

HIST 5451 - Imperial Spain 1469-1714 (3)

The rise of the Spanish Empire in the Old World and the New from the fifteenth through the seventeenth centuries. This course is co-listed with HIST 4451.

HIST 5452 - Modern Latin America (3)

Latin American history from the independence movement of the eighteenth century to the present. This course is co-listed with HIST 4452.

HIST 5453 - History of Mexico (3)

A survey of the political, social, economic and cultural history of Mexico from pre-Columbian civilizations to the present. This course is co-listed with HIST 4453.

HIST 5461 - The Rise of Chinese Civilization (3)

The origins, development, and transformation of Chinese civilization from ancient to modern times, including China's impact on peripheral nations and the modifications of traditional culture by Western influences until 1949. This course is co-listed with HIST 4461.

HIST 5462 - The Rise of Japanese Civilization (3)

The origins, development, and transformation of Japanese civilization from ancient to modern times, emphasizing the unique qualities of Japanese history and culture and the role of Japanese leadership in modern East Asia. This course is co-listed with HIST 4462.

HIST 5463 - Modern China (3)

Communist China since World War II, including the expulsion of the Nationalist government from the mainland, the consolidation of communist power and authority, internal upheavals such as the "Hundred Flowers," the Great Leap Forward, and the Cultural Revolution and Communist China's foreign policies and role in international affairs. This course is co-listed with HIST 4463.

HIST 5464 - Modern Korea (3)

Korean history from 1800 to the present, examining politics, society, economy, and culture. Focus on Korea's interaction with East Asia and the world. This course is co-listed with HIST 4464.

HIST 5471 - The African Diaspora (3)

Examines the global dispersal of Africans with particular emphasis on the rise and abolition of the Trans-Saharan and Atlantic slave trades. This course is co-listed with HIST 4471.

HIST 5472 - African History (3)

Examines the African continent, its development and its place in world affairs since prehistory, from complex societies to independence in the twentieth century. This course is co-listed with HIST 4472.

HIST 5473 - History of South Africa (3)

A survey of South African History from the pre-1800s to the present. This course is co-listed with HIST 4473.

HIST 5491 - Special Projects in World History (1-6)

Study, interpretation, and discussion of special topics and problems in World History. This course is co-listed with HIST 4491. May be repeated for a maximum of 15 semester hours.

HIST 5500 - Public History Internship (3)

Course allows student to obtain practical experience in a specialization field of public history. Prerequisite(s): HIST 5340.

HIST 5550 - Public History Project (3)

The course serves as the capstone for the Applied Track of the MA in history program and allows students the opportunities to obtain practical experience in creating and managing a public history project. Prerequisite(s): HIST 5340 and HIST 5500.

HIST 5551 - Special Projects in American History (1-6)

Study, interpretation, and discussion of special topics and problems in American history. This course is co-listed with HIST 4351. May be repeated for a maximum of 15 semester hours.

HIST 6305 - Studies in History (3)

Directed specialized study leading to the completion of a research paper. Periodic arranged class sessions devoted to discussion of historical writing techniques and analysis of individual research projects. May be repeated as areas change for a maximum of 12 semester hours. Prerequisite(s): Nine semester hours of history.

HIST 6350 - Thesis (4-6)

Special investigation of problems in historical research and interpretation culminating in the completion of a thesis.

HDFS 5000 - Special Projects (1-6)

Opportunities for individual or groups of students to pursue an emerging or special professional topic or issue. Prerequisite(s): Instructor consent.

HDFS 5050 - Ethics and Professional Studies in Family Science (3)

The purpose of this course is to introduce HDFS graduate students on the current ethical standards of the American Association for Marriage and Family Therapy (AAMFT) and the National Council on Family Relations (NCFR). It will address codes of ethic as well as legal and professional issues arising out of the nature of systems work and research for marriage and family therapists and family life educators. Fall.

HDFS 5110 - Family Theory (3)

This course will study major family theories in the field. Theories will be critically analyzed, compared on concepts and application. The course will examine the usefulness of theory in describing, explaining, predicting, or changing behavior and development. This is an advanced course and it is assumed that students already acquired a basic knowledge and understanding of family theories. Fall.

HDFS 5120 - Human Development Theory (3)

This course will study major human development theories including physiological, cognitive, social, emotional, language and culture influences grounded in individuals within families. This is an advanced course and it is assumed that students already acquired a basic knowledge and understanding of human development. Spring.

HDFS 5210 - Theoretical Foundations of Couple and Family Therapy (3)

This course is designed to help students begin to conceptualize human problems as they are related to the functioning of systems. The course will cover systems theory, a survey of the major schools of marriage and family therapy, and consider the contribution of research and the "common factors" debate to the field of MFT. Fall.

HDFS 5220 - Pre-Practicum in Marriage and Family Therapy I (1)

This course is designed to orient students towards therapy skills including assessment, planning, and treatment. Students will learn procedures in marriage and family therapy through observation, reading, assignments and class discussions. Fall.

HDFS 5221 - Sexuality Across the Lifespan (3)

Addresses human sexuality across the life span using a life course and cultural contextual perspective. Historical, biological, psychological, environmental, and familial influences will be examined. This course is co-listed with HDFS 4220.

HDFS 5230 - Pre-Practicum in Marriage and Family Therapy II (2)

This course we will focus on preparing students to think as a practitioners informed by research, theory, and personal reflection. This includes developing the habit of seeking out professional literature to inform their clinical work. In addition, students will begin in co-therapy with a master's student of a different cohort or approved therapist at an approved site as well as work on treatment teams. As clinicians in training, conceptualization of cases from a theoretical lens is very important. Therefore students will have the opportunity to discuss cases as a group and prepare a write-up of two cases from a specific theoretical lens. Prerequisite(s): HDFS 5220. Spring.

HDFS 5251 - Selected Issues in Child and Family Development (3)

In-depth study of selected issues in child and family development. This course is co-listed with HDFS 4250. Prerequisite(s): instructor consent.

HDFS 5260 - Adulthood (3)

Structured to introduce research approaches to the study of adult development through a cultural contextual exploration of the social, emotional, behavioral and educational processes. This course is co-listed with HDFS 4260.

HDFS 5280 - Professional Issues in Sexuality Education (3)

Examination of issues related to sexuality education including program models, role of parents, research, and resource development with an emphasis on preparation for certification by the American Association of Sex Educators, Counselors and Therapists. Prerequisite(s): NUR 5530 or school consent.

HDFS 5500 - Research Methods in Human Development and Family Science (3)

This course will study major human development theories through the lifespan including physiological, cognitive, social, emotional, language and culture influences. This is an advanced course and it is assumed that students already acquired a basic knowledge and understanding of human development. Prerequisite(s): Basic Statistics or Research Methods courses. Fall.

HDFS 5505 - Qualitative Research Methodology in Human Development and Family Science (3)

This course focuses on expanding students' skills in theories and methods associated with qualitative research. Emphasis is placed on: understanding the historical, philosophical, and theoretical foundations of qualitative research methodologies; comparing and applying various qualitative traditions; determining how qualitative research methods can answer questions in family research not easily addressed by quantitative research models; and applying this knowledge to a qualitative research project. Spring.

HDFS 5510 - Early Childhood Approaches (3)

This course provides an in-depth exploration of effective teaching practices in early childhood education. Students will gain a comprehensive understanding of child development from birth to age eight and learn how to apply developmentally appropriate practices in diverse learning environments. Key topics include the role of the teacher, curriculum design, assessment, family engagement, and strategies for supporting children's cognitive, social, emotional, and physical development. The course also addresses current issues in the field, such as equity, inclusion, diversity, and the use of technology in early childhood settings. This course is co-listed with HDFS 4510. Taught only as an online course.

HDFS 5520 - Multicultural Study and Approaches with Families (3)

Structured to examine multi-cultural individuals and families within the context of their unique cultural heritage. Special attention is focused on the external conditions that affect the internal workings of families and methods that have been found to be sensitive in addressing the needs of diverse groups. This course is co-listed with HDFS 4520.

HDFS 5530 - Transition to Marriage (3)

Structured to provide information in regards to partner selection, to help individuals and couples understand the contexts within which they are embedded so that they can develop systems of support for their relationship, and to present suggestions for

nourishing the relationship. This course is co-listed with HDFS 4530. Taught only as an online course.

HDFS 5540 - Addiction and the Family (3)

An overview of various addictions with emphasis on substance use disorders and their effect on individuals, families, and communities. The course will focus on prevention and treatment. This course is co-listed with HDFS 4540.

HDFS 5550 - Health and Human Services (3)

Introduction to the role of professionals who provide health and human services to meet the needs of individuals and families throughout their developmental stages. This course is co-listed with HDFS 4550.

HDFS 5560 - Divorce (3)

Structured to introduce research literature on divorce. The changes that occur in family structures over time in the pre-divorce, divorce, and post-divorce process will be examined. This course is co-listed with HDFS 4560.

HDFS 5570 - Death, Loss, and Grief Across the Lifespan (3)

Intended to explore theory and research related to death, dying, loss, and grief across the lifespan and the ways that support is provided or lack thereof to bereaved individuals within cultural context. We shall explore individual, familial, religious, cultural, societal, and other human developmental contributions to such understandings and experiences. This course is co-listed with HDFS 4570.

HDFS 5580 - Resilience in Children and Adolescents (3)

Intends to introduce selected theories and research on situations that place children and adolescents at risk for emotional, behavioral, and academic problems. In addition, research on stress/coping and resilience will be emphasized. This course is co-listed with HDFS 4580.

HDFS 5590 - Health Issues in Childhood and Adolescence (3)

Will present selected health issues and its implications for the children/adolescents, family and society from a stress and coping perspective. In addition, it is intended to serve as an introductory course to the profession of Child Life. This course is co-listed with HDFS 4590.

HDFS 5710 - MFT Practicum (3)

This practicum is designed to assist graduate students in marriage and family therapy to acquire knowledge and skills related to conducting therapy with couples, families, and individuals from a variety of theoretical perspectives. Throughout the term, students will be encouraged to explore both their own and their assigned clients' intrapsychic and contextual factors related to client problems and solutions. May be repeated for a maximum of 9 semester hours. Prerequisite(s): Advisor Consent. Fall, Spring, Summer.

HDFS 5711 - Internship (3)

Provides experience for students in cooperating businesses, agencies and organizations. This course is co-listed with HDFS 4710. May be repeated for a maximum of 12 semester hours. Prerequisite(s): CFD 3710 and school consent.

HDFS 5850 - Family Policy and Advocacy (3)

Provides an overview of trends and issues in family policy and advocacy, emphasizing the impact of laws, policies, programs on individuals and family. This course is co-listed with HDFS 4850.

HDFS 6220 - Theories of Couple and Family Therapy (3)

This course is designed to help students explore classic family therapy models that are useful in conceptualizing and intervening into multigenerational relational systems. Students will also explore the components of evidence-based family therapy models and additional considerations when working with families through large social systems. Prerequisite(s): HDFS 5210 Spring.

HDFS 6230 - Advanced Couple and Family Therapy (3)

This course is designed to introduce students to theoretical underpinnings of two major practice theories in marriage and family therapy. Additionally, throughout the class students will also discuss ideas that stimulate thinking regarding their own personal integration of all the clinical theories they have studied. Prerequisite(s): HDFS 5210. Spring.

HDFS 6240 - Systemic Assessment and Diagnosis (3)

Students will gain knowledge and skills in assessment, diagnostic criteria based on the current Diagnostic and Statistical Manual of Mental Disorders (DSM), diagnostic interviewing, risk assessment, mental status exam, and documentation of assessment and diagnosis. Students will develop an understanding of how to approach a diagnosis as it relates to assessments, treatment planning, and ethical implications from a family and relational systems perspective. Prerequisite(s): HDFS 5210. Corequisite(s): HDFS 6730. Spring.

HDFS 6410 - Diversity and Family Interventions (3)

The purpose of this course is for HDFS students to learn about diversity, cultural competency, and how to deliver culturally sensitive and appropriate services to diverse families. The course will examine the concepts of race, ethnicity, diversity, inclusion, as well as definitions of the various groups that populate the United States. Fall.

HDFS 6510 - Solution Focused Therapy (2)

This course is designed to help students understand the tenants of Brief Solution-Focused Brief Therapy (SFBT) and to be able to use this therapeutic model in their clinical work. SFBT is a future-focused, goal-directed approach to therapy that has been used with many different presenting problems (e.g., substance abuse, depression, anxiety, relationship problems, and parenting problems). Prerequisite(s): HDFS 5210.

HDFS 6520 - Systemic Treatment of Substance Use Disorders (3)

This course presents an overview of substance use disorders and their impact on individuals, families, and communities. The course will address assessment and treatment of substance use disorders using evidence-based approaches, with family systems theories and interventions being of primary focus. Prerequisite(s): HDFS 5210. Fall.

HDFS 6530 - Couples and Sex Therapy (3)

The purpose of this course is for HDFS students to learn about human sexuality and the clinical practice of sex therapy related to DSM-5 sexual dysfunctions and their effect on the individuals, couples, and family systems. Students will learn appropriate assessment and intervention methods utilizing family systems approaches. Prerequisite(s): HDFS 6220. Spring.

HDFS 6540 - Systemic Treatment of Children and Families (3)

In this course, we will explore family therapy theory-driven models to prepare couple and family therapists to work in therapeutic settings with children and adolescents using family therapy. Students will learn best practice for assessments and treatments using evidenced-based models and intervention with developmental, cultural, and contextual considerations to ethically engage key systems (parents, schools, other caregiving systems) in treatment of children and families. Prerequisite(s): HDFS 6220. Fall.

HDFS 6730 - Professional Assessment (3)

The purpose of this course is to introduce students to the philosophy, evaluation, and practice of individual, couple, and family assessment. This course will assist HDFS graduates in understanding assessment from a systemic and contextual lens. Assumptions and values underlying informal and formal assessment approaches will be discussed and specific assessment techniques will be evaluated. Prerequisite(s): HDFS 5110. Spring.

HDFS 6800 - Readings in Human Development and Family Science (1-5)

For students in Human Development and Family Science. Individual study and research regarding problems or areas of particular interest in human development and family science. Written report or reports will be required.

HDFS 6850 - Integrative Project (3)

Students will identify a public health topic and develop a research or service grant proposal by integrating what they have learned from the program coursework. Students will learn program design, planning, implementation and evaluation strategies, and grant writing strategies and methods. This individualized project will result in grant proposal and presentation. Prerequisite(s): HDFS 5500 and HDFS 6730 or concurrently. Spring.

HDFS 6860 - Research Topics (2)

Special investigation of an approved research topic in Human Development and Family Science. A prospectus is required. Prerequisite(s): HDFS 5500.

HDFS 6890 - Thesis (1-6)

The purpose of this course is for HDFS students to investigate an approved topic in human development and family science or marriage and family therapy resulting in a formal thesis. A prospectus is required. May be repeated for a maximum of 6 semester hours Prerequisite(s): Graduate standing in the HDFS program and approval from the school, program coordinator and/or thesis advisor. Spring, Summer.

HRM 5340 - Needs Assessment (1)

This course is the first in a series of 3 one-credit courses providing information and insight into the managerial function of training and development. Specifically, students will: conduct appropriate needs assessment strategies to determine potential training opportunities; write learning objectives that clearly articulate training goal; articulate learning gaps in behavioral terms. The overall approach is to develop leadership skills centering on changing employee behavior or developing new employee behaviors. Students gain the terminology needed to explain why training is effective. Each course in the series addresses elements of human resources development process (Hughes & Bird, 2017): assessment of needs; development of materials; and, selection of methods, delivery, and evaluation of training. As a result of completing the series of 3 courses, students are prepared to select, plan, implement and evaluate training interventions focused on meeting adult learners' needs. Students who earned undergraduate credit for HRM 4340 may not take HRM 5340 for graduate credit. This course is co-listed with HRM 4340. Prerequisite(s): MGT 5310 or MGT 5320 or MGT 5325 or MGT 5340 or HRM 5960 or concurrent.

HRM 5341 - Selecting Materials and Delivery Methods (1)

This course is the second in a series of 3 one-credit courses providing information and insight into the managerial function of training and development. Specifically, students will: apply learning theory to effectively design and develop training programs for adult learners in organizations; select suitable instructional strategies, technology, and learning materials for delivering training; Apply theories of learning to the training function; apply leadership theory and management concepts to effectively design and develop training programs; develop a training intervention module. The overall approach is to develop leadership skills centering on changing employee behavior or developing new employee behaviors. Students will gain the terminology needed to explain why training is effective. Each course in the series addresses elements of human resources development process (Hughes & Bird, 2017): assessment of needs; development of materials; and, selection of methods, delivery, and evaluation of training. As a result of completing the series of 3 courses, students will be prepared to select, plan, implement and evaluate training modules focused on meeting adult learners' needs. Students who earned undergraduate credit for HRM 4341 may not take HRM 5341 for graduate credit. This course is co-listed with HRM 4341. Prerequisite(s): HRM 5340 and two of the following must be taken before or concurrently MGT 5310, MGT 5320, MGT 5340, MGT 5325 or HRM 5960. Spring only.

HRM 5342 - Delivery and Evaluation (1)

This course is the third in a series of one-credit courses providing information and insight into the managerial function of training and development. Specifically, students will: demonstrate effective presentation skills to maximize learning; measure and evaluate training module(s); conduct a cost-benefits analysis for a training module. Students WILL be evaluated on their in-class, or client-based, delivery of training in MGT 4342. The overall approach is to develop leadership skills centering on changing employee behavior or developing new employee behaviors. Students will gain the terminology needed to explain why training is effective. Each course in the series addresses elements of human resources

development process (Hughes & Bird, 2017): assessment of needs; development of materials; and, selection of methods, delivery, and evaluation of training. As a result of completing the series of 3 courses, students will be prepared to select, plan, implement and evaluate training modules focused on meeting adult learners' needs. Students who earned undergraduate credit for HRM 4342 may not take HRM 5342 for graduate credit. This course is co-listed with HRM 4342. Prerequisite(s): HRM 5340 and HRM 5341 and two of the following must be taken before or concurrently MGT 5320, MGT 5340, MGT 5325 or HRM 5960. Spring only.

HRM 5930 - Compensation and Benefits (3)

Concepts, models, theories, and application of processes and systems of employee compensation and benefits within organizations. This course is co-listed with HRM 4930. Prerequisite(s): HRM 3920.

HRM 5960 - Employment and Development (3)

Concepts, models, theories, and application of human resource planning, employment, and training and development. Prerequisite(s): BADM 5400.

HRM 5990 - Problems in Human Resource Management (3)

An integrated approach to the administration of the human resource function in various types of organization settings through the use of the case and incident methods. This course is co-listed with HRM 4990. Prerequisite(s): HRM 3920.

INDM 5015 - Legal Aspects of Industry (3)

Identify, discuss, and research legal issues affecting industry as related to corporate planning, decision making, and management. The role of corporate and social responsibility will also be developed. An additional fee is associated with this course.

INDM 5120 - Human Factors Engineering (3)

Integration of concepts involved in providing safe and comfortable work places (Ergonomics) with concepts directed toward increased productivity and profitability (Work Design). This course is co-listed with INDM 4220. An additional fee is associated with this course.

INDM 5130 - Lean and Quality Management (3)

Relationship between quality and competitiveness, design strategy for performance excellence, and discussion of cases in lean systems and Six Sigma. This course is co-listed with INDM 4230. Prerequisite(s): Background statistics course. An additional fee is associated with this course.

INDM 5140 - Facilities Engineering (3)

Provides students and practitioners with the practical resources that describe the techniques and procedures for developing an efficient facility layout and an introduction to computer simulations. This course is co-listed with INDM 4240. An additional fee is associated with this course.

INDM 5150 - Project Management (3)

Designed to provide students with applied knowledge in project management organizational contexts, project selection, portfolio management, project leadership, scope management, team building, conflict management, risk management, scheduling, networking, resource management, project evaluation, project control, and project termination. This course is co-listed with INDM 4250. An additional fee is associated with this course.

INDM 5160 - Organizational Dynamics (3)

Various types and styles of supervisory leadership in the industrial setting. Emphasis is placed on human relations aspects of leadership in the line and staff organizational structure. This course is co-listed with INDM 4260. An additional fee is associated with this course.

INDM 5180 - Industrial Statistics (3)

Statistical methods designed for industrial and applied research. Some of the quantitative methods used for solving industrial problems, including measurement system analysis, statistical process control, probability distribution, testing hypotheses, multiple regression analysis, design of experiment, and nonparametric statistics commonly used in industry. This course is co-listed with INDM 4280. Prerequisite(s): MATH 1111. An additional fee is associated with this course.

INDM 5210 - Industrial Management (3)

A survey of operations management in industry today. Industrial management principles and applications, management science, operations analysis and design, manufacturing processes, process life cycle, production inventory, and quality control are emphasized. This course is co-listed with INDM 4210. An additional fee is associated with this course.

INDM 5212 - Production and Operations Management (3)

Production/operations concepts with emphasis upon systems, systems design and analysis, strategies, productivity, planning, forecasting, deterministic and stochastic inventory control, MRP scheduling, and project planning. An additional fee is associated with this course.

INDM 5220 - Applied Operations Research (3)

Systems and modeling in industrial management situations. General models, and models such as linear programming, transportation assignment, dynamic programming, and queuing theory are discussed. An additional fee is associated with this course.

INDM 5222 - Principles and Practices of Lean Systems (3)

A survey of theory, goals, and applications of Lean principles and strategies in industrial organizations. Applying Lean concepts to business strategy, product design, tools for finding and eliminating wastes and for process continuous improvement. Prerequisite(s): INDM 5130 or ENGT 5580 or instructor consent. An additional fee is associated with this course.

INDM 5230 - Seminar in Industrial Management (3)

To provide a culminating experience that will integrate complex industrial management and technology concepts into a strategy for interpreting the role of a management professional. Prerequisite(s): 24 semester hours of degree credit or instructor consent. An additional fee is associated with this course.

INDM 5232 - Seminar in Lean-Six Sigma Implementation (3)

An investigation of problems and specific issues in Lean-Six Sigma implementation in the manufacturing and service environment is presented. The emphasis is on case study analysis and individual research projects on industrial core operations and support functions, with the business results of Lean and Six Sigma processes. Prerequisite(s): INDM 5130 or ENGT 5580 or instructor consent. An additional fee is associated with this course.

INDM 5240 - Engineering Economy (3)

Principles and techniques needed for making decisions about the acquisition and retirement of capital goods by industry. Emphasis on techniques which produce long-run economy in industrial operations. An additional fee is associated with this course.

INDM 6222 - Principles and Practices of Lean Systems (3)

A survey of theory, goals, and applications of Lean principles and strategies in industrial organizations. Applying Lean concepts to business strategy, product design, tools for finding and eliminating waste and for continuous process improvement. This course is co-listed with INDM 5222 . Prerequisite(s): Admission to PhD program. An additional fee is associated with this course.

INDM 6580 - Advanced Strategic Quality and Standards (3)

A course of study in total quality techniques, quality standards and criteria, and quality certification training utilized by quality professionals in dynamic organizations. Prerequisite(s): INDM 5130 or ENGT 5580 or instructor consent. An additional fee is associated with this course.

INST 5000 - Special Projects in Educational Technology (1-3)

Directed individual or group study of contemporary issues in educational technology. May be repeated for a maximum of 6 semester hours.

INST 5100 - Foundations of Educational Technology (3)

Provides historical, sociological, philosophical, and research foundations for applying computer-related technologies in educational settings.

INST 5101 - Integrating Technology into Teaching (3)

Advanced preparation in how to integrate technology into teaching including the latest trends and pedagogical strategies. This course is co-listed with INST 4100.

INST 5110 - Google Educator Preparation (3)

Preparation in how to become a Google Educator by effectively integrating Google tools into teaching. This course is co-listed with INST 4110.

INST 5120 - Google Education Trainer Preparation (2)

Preparation in how to become a Google Education Trainer. This course is co-listed with INST 4120. Prerequisite(s): INST 5110.

INST 5140 - Technology Troubleshooting for Educators (3)

Provides educators with the knowledge and skill to operate, maintain and troubleshoot the various hardware devices and software found in educational settings. This course is co-listed with INST 4330.

INST 5150 - Design and Production of Media for Instruction (3)

Design and production of print-based, computer-based, and video-based instructional materials that are related to subject areas or grade levels. Includes application of multimedia technology to the design and production of educational materials aligned with standards. This course is co-listed with INST 4400.

INST 5160 - Principles of Online Instruction (3)

Introduces students to the resources, techniques, and practices of teaching and learning in the PK-12 online environment. This course is co-listed with INST 4300.

INST 5170 - Fund Development for Educational Technology (1)

Practical understanding and skills related to the creating fundable ideas, locating funding sources, writing competitive proposals, and manage funded educational technology projects. This course is co-listed with INST 4310.

INST 5180 - Essential Practices for Technology Directors (3)

Prepares aspiring school technology directors for the complexities and challenges of leading technology initiatives in educational settings. Through a blend of theoretical knowledge and practical applications, participants will develop the skills to effectively plan, implement, and manage technology integration strategies that enhance teaching and learning. Spring.

INST 5200 - Instructional Design and Development (3)

In this course, students will use instructional design theory and principles to develop learning experiences. Students will apply instructional design models to identify the needs of learners, design learning materials, and work with subject matter experts. Topics include foundations in instructional design, needs analysis, assessment, and contemporary issues and trends in instructional design. This course is co-listed with INST 4200. Spring.

INST 5220 - Communication in Online Learning Communities (3)

Students examine theoretical and practical aspects of communication and collaboration focusing on online communication and its effects on online learning communities.

INST 5320 - Assessing and Evaluating Online Instruction (3)

This course presents a variety of tools and methods for assessing student achievement in online learning

environments. Emphasis is on continual assessment and evaluation.

INST 5330 - Educational Product Development and Management (3)

Students create, find, evaluate, use, and store digital educational products; assess their impact on learning; plan standards-based lessons, and design storage and retrieval systems.

INST 5380 - Artificial Intelligence for K-12 Educators (3)

This course equips K-12 educators with the knowledge, skills, and strategies needed to effectively integrate artificial intelligence tools into their classroom practice. Participants will explore a wide range of AI applications, learning to leverage these technologies to enhance student learning and streamline administrative tasks. Throughout the course, educators will examine practical use cases across various subject areas and grade levels, developing confidence in selecting appropriate AI tools that align with their pedagogical goals and curriculum standards. The program emphasizes an ethical approach to AI implementation, addressing important considerations such as data privacy, algorithmic bias, and developing students' critical digital literacy skills. Participants will engage in hands-on learning experiences, collaborative discussions, and create customized implementation plans for their unique classroom contexts. By the conclusion of this course, educators will possess a robust toolkit of AI-enhanced teaching strategies that can transform their instructional practice while preparing students for a technology-rich future. This course is co-listed with INST 4380. Fall, Summer.

INST 5390 - Educational Technology Leadership (3)

Provides educational technology coordinators with knowledge for managing the change process in schools; leadership in staff development, facilities and resource management

INST 5401 - Computer Science for Educators (3)

Students will develop foundational knowledge and skills of computer science concepts including: the impacts of computing, computing systems, networks and the internet, data and analysis, algorithms and programming. This course will prepare educators for teaching computer science content through engagement in problem solving, computational thinking, and pedagogical practices. This course is co-listed with INST 4401.

INST 5500 - Online Course Development (3)

Designed to synthesize information from educational technology coursework and experiences. Culminates with the creation of coursework in an online setting. Prerequisite(s): INST 5100 or concurrently.

INST 5900 - Introduction to Research Methods in Educational Technology (3)

Theories, methods, and approaches to qualitative, quantitative and mixed method inquiry in educational technology. Exposes students to different paradigms of research, designs for data collection and analysis, and historical and ethical research of human subjects.

INST 5950 - Advanced Research Methods in Educational Technology (3)

Students will conduct basic quantitative and qualitative research. Students will develop instruments to gather data, and use existing datasets for analysis. Prerequisite(s): INST 5900 Fall.

INST 6500 - Online Course Production (3)

Production of an online course in the field of educational technology. May be repeated for a maximum of 6 semester hours. Prerequisite(s): INST 5500 or instructor consent.

INST 6930 - Internship in Educational Technology (3)

Practical experience in the use, management, evaluation, and application of technology resources to support instruction in classroom settings. Prerequisite(s): INST 5100, INST 5220 or concurrently, INST 5320 or concurrently, INST 5330 or concurrently, INST 5390 or concurrently.

INST 6935 - Internship in Instructional Technology (3)

This practical, hands-on course provides students with real-world experience in leading educational technology professional development in various learning environments. Students will work with educational institutions, tech companies, or relevant organizations to gain insights into the implementation and management of technology-enhanced learning solutions. May be repeated for a maximum of 9 semester hours. Fall, Spring.

INST 6940 - Advanced Practicum in Instructional Technology (3)

Practical experience in appropriate areas of instructional technology. May be repeated for a maximum of 6 semester hours.

INST 6950 - Seminar in Educational Technology (3)

A seminar designed to address various current topics in educational technology. May be repeated for a maximum of 6 semester hours.

INST 6960 - Research Problems in Instructional Technology (3)

Special investigation of an approved problem in the major field resulting in a research paper. May be repeated for a maximum of 6 semester hours. Prerequisite(s): INST 5900 or instructor consent.

INST 6990 - Thesis in Educational Technology (3)

Special investigation of an approved problem resulting in a formal thesis. May be repeated for a maximum of 6 semester hours. Prerequisite(s): INST 6960 or instructor consent.

INDS 5000 - Special Projects in Interdisciplinary Studies (1-6)

Individual or group study of problems in special areas of interest in interdisciplinary studies. May be repeated for a maximum of 6 semester hours. Fall, Spring, Summer.

INDS 5100 - Introduction to Interdisciplinary Studies (3)

Students will develop advanced research skills for finding, evaluating, and synthesizing scholarly sources across disciplines. Students will heavily utilize library resources to enhance academic writing, ethical practices, and explore topics of interest. Fall.

INDS 5200 - Problem Solving and Analysis (3)

Graduate course that explores interdisciplinary research methodologies. Students will integrate multiple disciplinary perspectives to examine complex problems, develop ethical research designs, and synthesize interdisciplinary insights. Prerequisite(s): INDS 5100. Spring.

INDS 6000 - Capstone in Interdisciplinary Studies (3)

Special investigation of an approved interdisciplinary problem involving at least two fields of study. Culminates in communicating the findings to a project team or professional audience. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Advisor consent. Fall.

INDS 6800 - Internship in Interdisciplinary Studies (1-3)

Provides a field-based learning experience in selected settings appropriate to the interdisciplinary fields of concentration under the supervision of university faculty and a site supervisor. May be repeated for a maximum of 3 semester hours. Fall, Spring, Summer.

ISP 5000 - Study Abroad (1-18)

This course allows students to enroll at the University of Central Missouri while attending classes in a sponsored study abroad program. The variable credits are based on the number of credit hours the student plans to complete at the foreign institutions. The actual credit recorded represents those credits completed by the student and transferred back to UCM. This course is co-listed with ISP 4000. May be repeated for a total of 18 hours of graduate credit, but the academic faculty graduate adviser will determine how many hours may directly apply toward the graduate degree. Prerequisite(s): Approval of the Director of the International Center.

ISP 5050 - Study Tour (0)

Faculty-led study tour experience.

KIN 5680 - Monitoring Athlete Training and Performance (3)

This course provides students with an advanced understanding of the methodologies utilized to track and monitor the daily effect of stress inputs on sport and exercise performance in athletic populations. It will require students to integrate their knowledge of physiology, biochemistry, biomechanics, data acquisition and analysis technology, as well as, sound statistical application and data visualization. This course stresses the importance of an application-based approach to athlete monitoring grounded in current evidence and methodologies.

KIN 5690 - Sport Performance Analytics (3)

This course provides students with the analytic skills to develop new applications and interfaces for complex sport and human performance datasets by which to aid in the accurate interpretation and translation of results to consumers, end users, and clients.

KIN 5830 - Advanced Exercise Physiology (3)

Advanced concepts in bioenergetics, cardiovascular, muscular, nervous, skeletal and pulmonary anatomy and physiology with an emphasis on the application of original research. Fall.

KIN 5850 - Clinical Exercise Physiology (3)

Advanced techniques in evaluating exercise intolerance using the physiology and pathophysiology of exercise gas exchange and electrocardiogram as frames of reference. An additional fee is associated with this course.

KIN 5870 - Mechanical Analysis of Sport Skills (3)

Advanced techniques applied to analyzing and evaluating performance characteristics in movement skills. Fall.

KIN 5890 - Laboratory Procedures in Exercise Science (3)

Provide students with laboratory experience in the use of instrumentation and procedures commonly employed to assess human performance, physical fitness, and health status in modern laboratories of applied exercise physiology, sports physiology, body composition, and contemporary health screening facilities. An additional fee is associated with this course.

KIN 5900 - Introduction to Research in Kinesiology (3)

An introduction to research design, with an emphasis on matching study design and statistical analyses, in which the final product is development of a research prospectus.

KIN 5910 - Analysis of Movement (3)

Provides students with an understanding of the scientific analysis of human movement from a qualitative perspective. We will examine the physiological, structural and mechanical bases from human movement, with examples drawn from everyday life, sports, and rehabilitation.

KIN 6600 - Seminar in Kinesiology (3)

This course is designed to give students exposure to contemporary and often controversial issues in kinesiology. This course will rely upon critical thinking and presentation skills. You will develop skill in research and evaluation to make an informed decision. Prerequisite(s): KIN 5900.

KIN 6900 - Readings in Kinesiology (1-3)

Guided study in the literature of special and related fields in the area of kinesiology. May be repeated for a maximum of 6 semester hours.

KIN 6980 - Internship (2-6)

Practical experience in sports administration, sports business management, sports communication, fitness/wellness, or pedagogy in a school, business or hospital. May be repeated for a maximum of 6 semester hours. Prerequisite(s): KIN 5850 for Fitness/Wellness specialization; SM 5750 for Athletic and Sports Administration specialization; and department consent.

KIN 6990 - Thesis (6)

Special investigation of an approved problem in kinesiology resulting in a formal thesis. A prospectus is required. Prerequisite(s): Instructor approval.

LIS 5000 - Special Projects in Learning Resources (1-5)

Directed individual study to address current issues in and/or special interests of the student. May be repeated for a maximum of 5 semester hours.

LIS 5001 - Special Projects in Library Science (1-5)

Individual or group study of problems in special areas of interest. This course is co-listed with LIS 4000. May be repeated for a maximum of 5 semester hours.

LIS 5050 - Introductory Experience in School Libraries (1)

This course is an introductory thirty (30) hours of field experience in a school library that provides opportunities for becoming involved with students and professional school libraries in a school setting. This course provides pre-service school librarians an opportunity to connect firsthand school experience with an emerging professional knowledge base. The course develops professional knowledge through observation, instruction, experience, and reflection. Students must have a background check on file. There is a fee for the background check. Prerequisite(s): Adviser consent required.

LIS 5071 - Teaching Multiple Literacies in the Library (3)

Students will prepare to teach information, digital, media and other literacies in the library for a variety of developmental ages and abilities. Topics covered include reading and writing in the field of information literacy, critical thinking, and problem solving. This is a professional education course.

LIS 5100 - Foundations of Librarianship (3)

Introduces the student to the development of the library as an institution and to the role of the library and the librarian in today's society.

LIS 5150 - Practicum I in School Libraries (1)

Students will spend fifty (50) clock hours volunteering and observing in a school library. Students will work closely with another school librarian who will serve as their mentor. This course is intended to serve as a mid-program level of experience for students seeking initial certification in school librarianship. Students must have a current background check on file. There is a fee for the background check. Prerequisite(s): LIS 5100. This is a professional education course.

LIS 5230 - History of Books and Libraries (3)

The development of books and libraries from the ancient world to the present and the effects of printed information on communication and cultural development in societies.

LIS 5250 - Developing and Managing Collections (3)

Critical analysis of selection tools in developing a comprehensive collection with an emphasis on diversity, library policies, and intellectual freedom.

LIS 5300 - Ethical Issues in Information Systems (3)

An ethical examination and evaluation of the structure and function of information systems and its use as a tool for research, lifelong learning, communication, collaboration, and commerce. This course includes an overview of the current ethical issues, ethical practices and ethical dilemmas related to using online information systems. Taught only as an online course.

LIS 5322 - Information Sources and Services (3)

The selection, evaluation, and use of traditional and digital sources for research, ethics, and information literacy.

LIS 5350 - Culturally Competent Librarianship (3)

The course is designed to introduce students to the theoretical and practical aspects of serving diverse populations through all aspects of librarianship. Fall, Summer.

LIS 5400 - Children's and Young Adult Literature (3)

An examination and evaluation of children's and young adult literature with an emphasis on diversity, equity, and inclusion.

LIS 5500 - Technology in Libraries (3)

The investigation, manipulation, and evaluation of current and future technologies used in libraries.

LIS 5520 - The User Experience in Libraries (3)

User experience (UX) design in libraries examines the process of understanding and improving the experiences patrons have when using the digital and physical spaces of the library. In this course, students will learn user-centered strategies to explore the needs and behaviors of library users so that they may improve library services, resources and spaces. Taught only as an online course.

LIS 5600 - Advanced Library Research (3)

Introduces students to methodologies and techniques necessary to conduct advanced or graduate-level library research. Topics covered include developing research problems and questions; critical appraisal of research literature and the peer review process; different types of sources; research ethics and integrity; and suitability of sources to the chosen topic. Modules are included that will be customized to each student's major field of study, looking at data collection, analysis and interpretation. This course is co-listed with LIS 4600.

LIS 5622 - Library Administration and Leadership (3)

Principles of administration and leadership as they apply to the library and its relationship to its many patrons.

LIS 5660 - Government Information and Policy (3)

Explores government information resources and how to locate, retrieve and use them. This course will also explore government policies, laws and issues as they relate to library and information services.

LIS 5700 - Organizing Information (3)

Apply and adapt the principles and processes of organizing information for access and retrieval. Students will develop skills in cataloging and classification of library materials.

LIS 5720 - Metadata for Digital Collections (3)

This course will introduce students to the basic theories and principles of metadata design and creation. The course will review major conceptual frameworks, ontologies and metadata schemas used in libraries, archives, museums, and digital data repositories. Real-life scenarios and collections will be used to highlight and gain understanding of the issues related to metadata creation, aggregation, and reuse. Spring.

LIS 5750 - Inquiry Learning (3)

This course provides experience planning lessons that use information and other resources to motivate and engage students. This is a professional education course.

LIS 5800 - Curriculum and the School Library (3)

The integration of information literacy skills and current technologies with a focus on collaboration and K-12 instructional strategies. This is a professional education course.

LIS 5802 - The Academic Library (3)

An examination of the functions of the academic library and their roles within the higher education environment.

LIS 5804 - The Public Library (3)

Public libraries provide a wide range of services, programs and resources for their communities. This course investigates current issues related to the functioning of the modern public library. This course is intended for students who wish to work in, or in collaboration with, a public library.

LIS 5820 - Practicum 2 in School Libraries (1-3)

Required for all students certified as teachers who are not under contract as school librarians and all initial certification students. Students will teach and collect data on their teaching in order to show evidence of impact on student learning. Students will also complete a portfolio that reflects all library standards. This placement is in a school library with a supervising librarian who meets DESE requirements and at least one observation of teaching by a university supervisor. Students must have a background check on file. There is a fee for the background check. 1-3 credits (50 clock hours per credit hour). May be repeated for a maximum of 3 semester hours. Prerequisite(s): Adviser consent. This is a professional education course.

LIS 5880 - Practicum Portfolio (1)

Practicum portfolio course for K-12 school librarians who are under contract as school librarians. Prerequisite(s): Advisor consent.

LIS 5890 - Global Information Issues (1-3)

The course is designed to allow students to explore timely issues arising from the dynamics of global interactions of information, technology, government policies, structure of knowledge, and the global marketplace. May be repeated for up to 6 semester hours. Summer.

LIS 5900 - Research Methods in Library Science (3)

Introduction to quantitative, qualitative and mixed methodologies used to conduct scholarly inquiry in libraries. Students will examine a variety of research designs used in libraries, including action research. Other topics covered include developing research topics and questions, writing literature reviews, research ethics and integrity, data collection, analyzing and evaluating research.

LIS 6700 - Cataloging and Classification (3)

The process of creating and applying metadata using standards and rules to represent the description, subject and classification of information resources, such as books, media, or objects, and storing the metadata in an information system. Prerequisite(s): LIS 5700. Summer.

LIS 6730 - Seminar (1-3)

A seminar designed to address various current topics in libraries and information services. Topics will be announced annually. May be repeated for a maximum of 6 semester hours.

LIS 6800 - Library Data and Assessment (3)

This course examines evaluation and assessment activities in libraries, including assessment practices, data analysis, and tools used for evaluating library operations. Spring.

LIS 6830 - Student Teaching in School Libraries (3-8)

This is a post-practicum clinical experience designed to place the student in a school library with the support of university faculty. This course is part of the certification requirements for teacher certification in school librarianship in the State of Missouri and must be completed in a school library. This is a professional education course.

LIS 6850 - Internship in Library and Information Services (1-3)

Provides a field-based learning experience in selected library settings appropriate to a student's field of concentration under the supervision of university faculty and a site supervisor. May be repeated for up to 6 semester hours. Fall, Spring.

LIS 6900 - Research Problems (3)

Special investigation of an approved problem in the field resulting in a research paper or presentation. May be repeated for a maximum of 6 semester hours. Prerequisite(s): LIS 5900 and Advisor consent.

LIS 6990 - Thesis (3-6)

Investigation of an approved topic in library or information service resulting in a formal thesis. A prospectus is required. May be repeated for a maximum of 6 semester hours. Prerequisite(s): LIS 6900.

MGT 5305 - Strategic Management (3)

Establishes a working knowledge of principles and practices of strategic management applied to real world problems. Looks at application of strategic tools to produce positive corporate impact on people, planet and profits. Learning via individual and team problem-solving. Prerequisite(s): Admission to the MS - Leadership program.

MGT 5310 - Leading and Guiding Change (3)

This course integrates the role of the manager as an "agent of change" with strategies for organizational intervention to leverage stakeholder engagement in order to promote sustainable, positive organizational growth. Students will acquire consultative and coaching skills, then apply them to a particular organizational system with a specific set of objectives in mind. Prerequisite(s): BADM 5400 or permission.

MGT 5320 - Learning Organization (3)

Learners discuss and evaluate cognitive biases that affect decision processes at a client organization of their choosing. Each learner finds his or her own client. Effective learning processes at the individual, dyad, team, organization, and inter-organizational levels are applied to this client. Together we examine how the organizational environment is shaped by norms, rules, roles, and communication. Prerequisite(s): BADM 5400 or permission. Spring only.

MGT 5325 - Strategic Organizational Communication (3)

Communication in managerial situations, including ethics, oral presentations, written messages and reports, communication audits, group dynamics and organizational communication. Prerequisite(s): BADM 5400.

MGT 5330 - Crafting Corporate Culture (3)

Combines elements of business communication, human resource management, and strategy to explore the questions of what corporate culture is, how it is created and sustained, and how it influences organizational changes. Students will apply these principles in a variety of business cases and in a local "client" business to develop skills in crafting a corporate culture through leadership.

MGT 5335 - Managerial Communication (3)

This survey course is designed to cover important managerial communication principles essential to effective organizational membership. The course emphasizes recent research advancements in management communication. Topics for the course include an investigation of classical, human relations, and human resource theories of management communication as well as an investigation of leadership and organizational learning. Prerequisite(s): Admission to the MBA program and BADM 5400.

MGT 5340 - Building Leadership Credibility (3)

Learners apply the leadership and followership skills they have developed in the graduate program and through their work history to a variety of business situations. Learners identify how personal values impact ethical choices and every aspect of corporate culture/strategy. Leadership competence is demonstrated through workshops, case analyses, work-based projects, and experiential assessments. Prerequisite(s): BADM 5400 or permission. Fall only.

MGT 5345 - Theory & Practice of Management and Organization Behavior (3)

Requires students to integrate management knowledge using conceptual, communicative, interpersonal, and technical skills applied to organizational behavior, leadership, and human resource management. Through experiential team-based activities and projects, students experience and reflect on the historic roots and development of management and leadership in order to improve their own every-day practice.

MGT 5350 - Special Problems in Management (1-3)

Individual work under supervision of a staff member. Problems may be undertaken in any phase of business. Prerequisite(s): Adequate preparation in the area to be studied.

MGT 5355 - Management & Strategy (2)

Focus on theories and principles of strategic leadership, as applied in real-life situations. Identify and evaluate decision-making and problem-solving processes at play in existing organizations. Apply strategic tools to analyze current practice and create and propose improvements for an existing organization. Evaluate and apply basic principles of change management. Learn via individual and team problem-solving and presentation. Prerequisite(s): Admission to the MBA program and BADM 5400.

MGT 5360 - Innovation for Strategic Advantage (3)

Investigation of innovation, how it is developed and sustained to create a strategic advantage. By looking at their own organizations, students will find innovative ways to serve their clients/customers and differentiate themselves from their competition. This course will focus on business model and process innovation, as well as new products, services and innovation transfer. Prerequisite(s): Three years professional work experience (thus approval by the Department of Marketing, Public Relations, and Sport Management chair is necessary) and admission to the Graduate School.

MGT 5370 - Quantitative Decision Making (3)

Students will gain working knowledge of various quantitative decision-making tools (e.g., project management, linear programming, regression analysis, statistical analysis, forecasting, risk analysis, queuing theory, break even analysis, and six-sigma) as appropriate depending on the cases and projects utilized in MGT 5371. Prerequisite(s): Admission to Graduate School. Corequisite(s): MGT 5371.

MGT 5371 - Strategic Decision Making (3)

Students in this course will gain deeper knowledge of the quantitative decision making tools learned in the co-requisite course MGT 5370 through experiential learning. The focus will be on the strategic application of the decision making tools to case studies and client projects in local organizations. Corequisite(s): MGT 5370

MGT 5390 - Internship in Business (3, 6)

Opportunity for students to gain theoretical knowledge and practical application in the student's field of specialization. Employment must be above entry level for graduate credit and must be approved by the HCBA Coordinator of Graduate Programs. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Overall graduate GPA 3.00.

MGT 5410 - Innovation, Quality and Sustainability (3)

Experiential investigation
of innovation, quality and sustainability in a team based, integrative learning environment. Students will learn how to create and sustain a competitive advantage using innovative
processes and continuous improvement tools. This course is co-listed with MGT 4310. Prerequisite(s): Admission to the MBA program and BADM 5400.

MGT 5425 - Management Communication (3)

Provide advanced communication theories and methods which are essential for effective managers in oral and written communication situations. Emphasizes individual, team, and group communication through a series of business cases. This course is co-listed with MGT 4325. Prerequisite(s): Admission to the MBA program and BADM 5400.

MGT 6300 - Applied Learning Experience (1-3)

This course is designed to provide students with opportunities to apply what they have learned in the MBA program to "real world" problems. Students engage I "experiential learning" via an approved project conducted at their place of employment or work on a project of their own. Each student will have a faculty mentor to provide coaching/guidance throughout the project. If the project is conducted in the workplace, the student must obtain the approval/support of a company sponsor, who will be responsible for providing project oversight and will provide input on assessing the quality of the final product. May be repeated for up to 3 semester hours. Prerequisite(s): Admission to the MS ESTL .

MGT 6330 - Readings in Management (1-3)

Selected readings in group dynamics, communications, decision-making theory, and managerialism and its economic justification. May be

repeated for a maximum of 6 semester hours. Prerequisite(s): Consent.

MKT 5400 - Marketing Strategy (3)

Managerial techniques applied to the marketing functions of organizations; strategic implications of decision making. Prerequisite(s): Admission to the MBA program and BADM 5400.

MKT 5405 - Marketing Theory and Behavior (3)

This course explores the role of marketing strategy in marketing planning and organizational buying behavior and various theories in marketing. This course will examine current events/issues and their implications for marketers. Prerequisite(s): Admission to the MBA program and BADM 5400.

MKT 5410 - Marketing Research Design (2)

Provides a study of research processes and qualitative research methods in marketing. Prerequisite(s): Admission to the MBA program and BADM 5400 .

MKT 5420 - Customer Relationship Management (3)

Provides a comprehensive study of customer relationship management (CRM) in the 21st century. This course offers an in-depth review of CRM and database marketing, strategic CRM, implementing a CRM strategy, and various metrics to measure customer value. This course is designed to specifically give you applicable skills to help your company to identify and manage "profitable" customers. Prerequisite(s): Admission to the MBA program and BADM 5400. Online.

MKT 5435 - Internship in Marketing (1-6)

Opportunity for students to gain practical application in the students' field of specialization. Employment must be above entry level for graduate credit and approved by the MBA Director. Prerequisite(s): Admission to the MBA program and BADM 5400.

MKT 5440 - Seminar in Brand Management (3)

The goal of this course is to provide students with the fundamental skills needed to create, build, and maintain original brands. This course is co-listed with MKT 4440. Prerequisite(s): Admission to the MBA program and BADM 5400.

MKT 5450 - Integrated Marketing Communication (3)

Determination of the correct blend of advertising, personal selling, sales promotion, and publicity. This course is co-listed with MKT 4450. Prerequisite(s): Admission to the MBA program and BADM 5400.

MKT 5454 - Sports Marketing (3)

The course will discuss the marketing of sports at professional, collegiate, and special event levels focusing on the role marketing plays in planning and decision making in attracting fans and sponsors. Students who earned undergraduate credit for MKT 4454 may not take MKT 5454 for graduate credit. This course is co-listed with MKT 4454. Prerequisite(s): Admission to MBA program and BADM 5400.

MKT 5460 - International Marketing (3)

Marketing policies and practices in foreign trade. Students enrolled in MKT 5460 may not also take MKT 4460 for undergraduate credit.

Prerequisite(s): Admission to the MBA program and BADM 5400.

MKT 5475 - Services Marketing (3)

Provides a study of the issues and concepts unique to the marketing of services including relationship marketing, service quality and customer satisfaction, service failure and recovery, and service delivery. Students who earned undergraduate credit for MKT 4475 may not take MKT 5475 for graduate credit. This course is co-listed with MKT 4475. Prerequisite(s): Admission to the MBA program and BADM 5400.

MKT 5480 - Inbound Marketing Strategy (3)

Provides students with multiple certifications to demonstrate proficiency related to inbound marketing strategies, content and email marketing, and search engine marketing. Students will also develop an

inbound marketing plan for an organization. Prerequisite(s): Admission to the MBA program and BADM 5400.

MKT 5485 - Social Media Analytics (3)

This course will explore how to systematically identify, extract, and analyze social media data using sophisticated tools and techniques, as well as discuss how to interpret and align the insights gained via these types of analytics with business goals and objectives. Prerequisite(s): Admission to the MBA program and BADM 5400. Online.

MKT 5510 - Advanced Professional Sales (3)

Designed to combine personal selling theory with actual practice. It will build on and further expand students' present understanding of the basic selling process. Designed for students who are planning or strongly considering a career in professional sales. This course is co-listed with MKT 4410. Prerequisite(s): Admission to the MBA program and BADM 5400.

MKT 5520 - Sales Management (3)

This class focuses on aspects involved in managing an organization's personal selling function. This course is co-listed with MKT 4420. Prerequisite(s): Admission to the MBA program and BADM 5400; previous sales experience or sales courses preferred.

MKT 6410 - Readings in Marketing (1-3)

Selected readings in diverse areas of marketing designed to complement and extend the student's program in marketing. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Admission to the MBA program and BADM 5400.

MATH 5100 - Advanced Calculus I (3)

A rigorous approach to the fundamental concepts of differential and integral calculus of functions of a single variable. This course is co-listed with MATH 4150. Prerequisite(s): MATH 1152 with a grade of C or better.

MATH 5150 - Advanced Calculus II (3)

A rigorous approach to the fundamental concepts of differential and integral calculus on R^n, infinite series, and sequences and series of functions. Prerequisite(s): MATH 5100.

MATH 5172 - Functions of a Complex Variable (3)

General properties of analytic functions of a complex variable with applications. This course is co-listed with MATH 4171. Prerequisite(s): MATH 1152 with a grade of C of better.

MATH 5180 - Real Analysis (3)

Properties of functions of one real variable, Lebesgue measure, measurable functions and integration, Fubini's theorem. Prerequisite(s): MATH 5100.

MATH 5210 - Topology I (3)

An introduction to the theory of metric spaces and point-set topology. Includes the study of metric and topological spaces, continuity, subspaces, product spaces, separation properties, connectivity, and compactness. This course is co-listed with MATH 4210. Prerequisite(s): MATH 5700.

MATH 5211 - Topology II (3)

A continuation of the study of topology. Includes the study of compactness, convergence, quotient spaces, and surfaces. Select topics from algebraic topology, including the fundamental group, may be included as time allows. Prerequisite(s): MATH 5210.

MATH 5400 - Combinatorics (3)

Principles of enumeration, integer sequences, advanced binomial coefficients, inclusion-exclusion principle, recurrence relations and generating functions, and special counting sequences. This course is co-listed with MATH 4400. Prerequisite(s): MATH 2410.

MATH 5410 - Mathematical Structures (3)

A rigorous approach to the mathematical structures necessary for the study of abstract mathematics. Topics include sets, logic, proof techniques, equivalence relations, functions, and

cardinalities of sets. Prerequisite(s): Graduate student standing and approval of mathematics graduate program coordinator.

MATH 5450 - Introduction to Graph Theory (3)

Basic graph theory concepts: connectivity, trees, matchings, graph coloring, Eulerian and Hamiltonian graphs, distance, planarity, and network flows. This course is co-listed with MATH 4450. Prerequisite(s): CS 2400 or MATH 2410.

MATH 5700 - Algebraic Structures (3)

An introduction to groups, finite groups and subgroups, cyclic groups, permutation groups, group isomorphisms, rings, integral domains, and fields, with applications. This course is co-listed with MATH 4710. Prerequisite(s): MATH 2410 and MATH 3710.

MATH 5705 - Modern Algebra I (3)

A rigorous study of groups and their structure. Topics include: group homomorphisms, subgroups, isomorphism theorems, Lagrange's Theorem, group actions, Sylow Theorems, solvable groups, and the Fundamental Theorem of Finitely Generated Abelian Groups. This course is co-listed with MATH 4711. Prerequisite(s): MATH 5700.

MATH 5711 - Modern Algebra II (3)

A rigorous study of rings, field extensions, and Galois theory. Topics include: introduction to rings, ideals, Euclidean Domains, Principal Ideal Domains, Unique Factorization Domains, Polynomial Rings, Field Extensions, Galois Theory, and the Fundamental Theorem of Galois Theory. Prerequisite(s): MATH 5705.

MATH 5722 - Advanced Ring and Module Theory (3)

An in-depth study of modules and commutative rings. Prerequisite(s): A basic knowledge of vectors and vector operations is assumed and MATH 5705.

MATH 5741 - Introduction to the Theory of Numbers (3)

Congruences, quadratic residues, the reciprocity theorem, and Diophantine equations. This course is co-listed with MATH 4741. Prerequisite(s): MATH 5700.

MATH 5812 - Problems in Teaching Elementary Mathematics (3)

An investigation of problem areas, general and student initiated, concerning teaching elementary school mathematics.

MATH 5851 - Probability and Statistics for Middle/High School Mathematics (3)

A course focusing on the concepts and methods of teaching probability and statistics in the middle and high school mathematics program. Not available for MS Mathematics. This course is co-listed with MATH 4851. Prerequisite(s): MATH 2821 and MATH 2822, or MATH 1151.

MATH 5852 - Problems in Teaching Secondary Mathematics (3)

A survey of current issues in the teaching of secondary mathematics.

MATH 5860 - Leadership for Secondary Mathematics Teachers (3)

This introduction course provides opportunities for participants to develop knowledge and understanding of leadership principles and the process of continuous improvement as it relates to the roles and responsibilities of secondary mathematics educators.

MATH 5890 - Mathematics for Special Education (3)

An investigation of the teaching and learning of statistics, probability, geometry, and algebraic thinking concepts appropriate for special needs children. This course is co-listed with MATH 4890. Prerequisite(s): EDSP 2100. This is a professional education course.

MATH 5900 - Special Problems in Mathematics (1-3)

May be repeated for a maximum of 3 semester hours.

MATH 5911 - Special Topics in Mathematics (1-3)

Individual reading and presentation of topics not included in the regular offerings of the school. May be repeated up to 3 times for a maximum of 3 semester hours. Prerequisite(s): Two of the following courses: MATH 5705, MATH 5100, MATH 5210.

MATH 5950 - Master's Project (3)

Semester-long project in mathematics, directed by a mathematics graduate faculty member, on a selected mathematics topic, that involves the exploration, development, and conclusion of the study. Includes a written project report and formal presentation to a committee of mathematics faculty members. Prerequisite(s): 21 hours of graduate coursework in mathematics and approval of the mathematics graduate program coordinator.

MATH 6950 - Thesis (6)

Research in an area of mathematical sciences, directed by a graduate faculty member in the Department of Computer Science and Cybersecurity, which leads to the completion of a thesis. May either be taken for 6 hours in one semester or for 3 hours in each of two consecutive semesters for a total of 6 hours.

ML 5010 - Foreign Studies in Language (French) (German) (Spanish) (1-6)

Credit granted for study in a UCM approved program in a foreign country. This course is co-listed with ML 4010. May be repeated for a maximum of 12 semester hours. Prerequisite(s): Need approval of graduate program adviser.

ML 5040 - Special Projects in Foreign Language (1-3)

Individualized and group instruction in foreign and modern languages. This course is co-listed with ML 4040. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Approval of student's program adviser.

MUS 5000 - Introduction to Graduate Study (3)

Books and periodicals about music and various collections and editions of printed music. Techniques of suitable style in presentation of formal documented papers. An additional fee is associated with this course.

MUS 5010 - Symphonic Wind Ensemble (0-1)

A select band which performs original band literature and transcriptions of many famous works at frequent appearances. Membership selected by audition. This course is co-listed with MUS 4010. May be repeated. An additional fee is associated with this course.

MUS 5015 - Opera Theatre (0-1)

Production of scenes from operatic repertoire. This course is co-listed with MUS 4015. May be repeated for a maximum of 4 semester hours. An additional fee is associated with this course.

MUS 5020 - Advanced Special Projects in Music (1-3)

Intensive directed study in music designed to improve the graduate student's understanding of specific areas of interest. May be repeated for a maximum of 6 semester hours. An additional fee is associated with this course.

MUS 5021 - Music Professional Development (1)

Professional development gained by attending reputable arts conferences and events. May be repeated for a maximum of 3 semester hours. Prerequisite(s): Instructor consent. An additional fee is associated with this course. Fall, Spring, Summer.

MUS 5025 - University Symphony Orchestra (0-1)

Performs concerts of standard and contemporary literature. Members selected by audition. This course is co-listed with MUS 4025. May be repeated. An additional fee is associated with this course.

MUS 5040 - Music Business Practices (3)

Covers copyright, performance rights, client management and interaction. This course is co-listed

with MUS 4040. An additional fee is associated with this course.

MUS 5049 - Concert Choir (0-1)

A large mixed chorus which sings music representative of the finest in sacred and secular choral literature. Open enrollment, but a choir placement may be required at the director's discretion. This course is co-listed with MUS 4050. May be repeated. An additional fee is associated with this course.

MUS 5050 - Research Problems (3)

Special investigation in the major field leading to the writing of the research document or thesis. Prerequisite(s): 10 semester hours of graduate credit. An additional fee is associated with this course.

MUS 5051 - Thesis (3)

Special Investigation of an approved problem in music resulting in a formal thesis. Prerequisite(s): 15 semester hours of graduate credit. An additional fee is associated with this course.

MUS 5052 - Graduate Recital (3)

Preparation and performance of a full-length public recital. Prerequisite(s): MUS 5050 or concurrent or by instructor consent. An additional fee is associated with this course. Fall, Spring, Summer.

MUS 5081 - Jazz Ensemble 1 (0-1)

A select ensemble which performs original jazz ensemble literature representing traditional as well as the most current forms of jazz. Membership selected by audition. This course is co-listed with MUS 4081. May be repeated. An additional fee is associated with this course.

MUS 5090 - University Chamber Singers (0-1)

The flagship choral ensemble of select singers, which performs the best of choral literature in concert; membership selected by audition. This course is co-listed with MUS 4090. May be repeated. Prerequisite(s): Audition. An additional fee is associated with this course. Fall, Spring.

MUS 5101 - Counterpoint I (3)

Eighteenth-century style in two parts: melodic structure, resolution of melodic and harmonic contrapuntal dissonances, canon, and the writing of original two-part inventions. This course is co-listed with MUS 4101. Prerequisite(s): MUS 2112 and MUS 2122. An additional fee is associated with this course.

MUS 5105 - Analytical Studies (3)

In-depth analysis of selected masterworks from the Renaissance to the twentieth century to develop musical understanding and its application to performance. Prerequisite(s): Admission to the MA Music Program. An additional fee is associated with this course.

MUS 5106 - Form and Analysis (3)

Small song forms, rondos, variations and sonata forms, with emphasis on aural analysis and score readings. This course is co-listed with MUS 4125. Prerequisite(s): MUS 2112 and MUS 2122 or concurrently. An additional fee is associated with this course.

MUS 5115 - Instrumentation (3)

Characteristics of instruments normally found in band and orchestra. Short writing projects for instrumental choirs, full band and orchestra. Score study. This course is co-listed with MUS 4115. Prerequisite(s): Permission of instructor. An additional fee is associated with this course.

MUS 5120 - Orchestration (2)

Setting complete works for small instrumental ensembles and full orchestra. Orchestration problems of school orchestras. Score study. Prerequisite(s): MUS 5115. An additional fee is associated with this course.

MUS 5125 - Band Arranging (2)

Practical arranging and transcribing for various groups including school band and wind ensembles. Prerequisite(s): Admission to the MA Music Program. An additional fee is associated with this course.

MUS 5130 - Choral Arranging (2)

Practical arrangements for various choral ensembles for school organizations and church choirs. This course is co-listed with MUS 4130. Prerequisite(s): MUS 1400; MUS 2112 and MUS 2122 or concurrently. An additional fee is associated with this course.

MUS 5140 - Advanced Composition (3)

Creative musical composition in applied, private lessons based on the individual student's interest, need, and capacity to develop an individual style. May be repeated. Prerequisite(s): Admission to the MA Music Program. An additional fee is associated with this course.

MUS 5181 - Advanced Jazz Improvisation (3)

Advanced study of jazz improvisation techniques in applied, private lessons. This course is co-listed with MUS 4181. May be repeated. Prerequisite(s): MUS 2181 or instructor consent. An additional fee is associated with this course.

MUS 5185 - Jazz-Commercial Arranging (3)

Characteristics of instruments normally found in jazz ensemble and commercial performing groups. Emphasis on style and voicing problems in these idioms. Writing projects for combo and jazz ensemble. Score study. This course is co-listed with MUS 4185. Prerequisite(s): MUS 2112 and MUS 2122. An additional fee is associated with this course.

MUS 5186 - Advanced Jazz-Commercial Arranging (3)

Private lessons in composition, arranging, score study, and analysis for various jazz or commercial ensembles based on individual student needs and interests. This course is co-listed with MUS 4186. May be repeated. Prerequisite(s): MUS 5185. An additional fee is associated with this course.

MUS 5190 - Electronic Music Composition (3)

Composition of electronic music in popular and artistic styles. Technical principles, history of the genre, and aesthetic considerations of electronic music. This course is co-listed with MUS 4190. An additional fee is associated with this course.

MUS 5195 - Creative Software Design (3)

MIDI/Audio programming, application development, and music composition in the Max/MSP environment and other environments. This course is co-listed with MUS 4195. An additional fee is associated with this course.

MUS 5201 - Piano Literature Through Beethoven (2)

Survey and analysis of music written for clavichord, harpsichord, and piano through the music of Beethoven. This course is co-listed with MUS 4201. Prerequisite(s): Four semesters of MUS 1510 or equivalent. An additional fee is associated with this course.

MUS 5202 - Piano Literature From the Romantic Era to the Present (2)

Survey and analysis of music written for piano from the Romantic era through the present. This course is co-listed with MUS 4202. Prerequisite(s): Four semesters of MUS 1510 or equivalent. An additional fee is associated with this course.

MUS 5205 - Music of the Renaissance (3)

Music of the era with specific reference to the Flemish school; the Italian motet, mass, and madrigal; the English madrigal and anthem; and the French chanson. Prerequisite(s): Admission to the MA Music Program. An additional fee is associated with this course.

MUS 5210 - Music of the Baroque (3)

The Baroque styles and forms including opera, cantata, and oratorio; keyboard and instrumental music to 1750. Prerequisite(s): Admission to the MA Music Program. An additional fee is associated with this course.

MUS 5215 - Music of the Classicists and Romanticists (3)

Musical forms and styles of Classicism and Romanticism. Prerequisite(s): Admission to the MA Music Program. An additional fee is associated with this course.

MUS 5220 - Music of the Twentieth Century (3)

Origins and trends of twentieth-century music. Prerequisite(s): Admission to MA Music Program. An additional fee is associated with this course.

MUS 5230 - Advanced Choral Literature (3)

Music literature for all choral groups with emphasis on the performance style and interpretative problems of the choral conductor. Prerequisite(s): MUS 2221. An additional fee is associated with this course.

MUS 5235 - Vocal Literature (3)

A survey of solo literature for all voice classifications with emphasis on the development of art song in the Italian, British, German, French, and American repertories. This course is co-listed with MUS 4235. Prerequisite(s): MUS 2222 or instructor consent. An additional fee is associated with this course.

MUS 5240 - Chamber Music Literature (3)

Formal and stylistic study of chamber music from 1600 to the present. Prerequisite(s): Admission to MA Music Program. An additional fee is associated with this course.

MUS 5250 - American Music (3)

American music from colonial days to the present time. Prerequisite(s): Admission to the MA Music Program. An additional fee is associated with this course.

MUS 5251 - String Instrument Literature and Pedagogy (2)

A survey of literature, instructional materials, and pedagogy of the various string instruments. This course is co-listed with MUS 4240. Prerequisite(s): 12 semester hours credit on major instrument. An additional fee is associated with this course.

MUS 5252 - Woodwind Instrument Literature and Pedagogy (2)

A survey of literature, instructional materials, and pedagogy of woodwind instruments. This course is co-listed with MUS 4245. Prerequisite(s): 12 semester hours credit on major instrument. An additional fee is associated with this course.

MUS 5253 - Brass Instrument Literature and Pedagogy (2)

A survey of literature, instructional materials, and pedagogy of brass instruments. This course is co-listed with MUS 4250. Prerequisite(s): 12 semester hours credit on major instrument. An additional fee is associated with this course.

MUS 5255 - Percussion Literature and Pedagogy (2)

A survey of literature, instructional materials, and pedagogy of percussion instruments. This course is co-listed with MUS 4255. Prerequisite(s): 12 semester hours credit on major instrument. An additional fee is associated with this course.

MUS 5260 - Critical Studies in Ethnomusicology (3)

A course in ethnomusicology that takes a topical approach to explore music cultures from around the world. An additional fee is associated with this course. Summer.

MUS 5300 - Band and Orchestra Literature (3)

A study of music written and arranged for elementary and secondary school bands and orchestras. May be repeated for a maximum of 8 credit hours. Prerequisite(s): Admission to the MA Music Program. An additional fee is associated with this course.

MUS 5305 - Advanced Rehearsal Techniques (3)

Score study, rehearsal preparation, and pedagogical tools that enhance musical artistry in middle school, high school, and collegiate ensemble settings. Prerequisite(s): Admission to the MA Music program.

An additional fee is associated with this course. Summer.

MUS 5308 - Advanced Marching Band Techniques (2)

Survey of history and function of the marching band with emphasis on special projects in advanced show design, music arranging and auxiliary units. Prerequisite(s): Admission to the MA Music program. An additional fee is associated with this course.

MUS 5309 - School Music Curriculum and Assessment (3)

Construction, development and implementation of school music curricula. Examination of available music assessment tools. Development of assessment tools appropriate for music classroom settings. Prerequisite(s): Admission to the MA Music program. An additional fee is associated with this course.

MUS 5310 - Research in Music Education (3)

An examination of quantitative and qualitative research methods used to document music education practices. Prerequisite(s): Admission to the MA Music program. An additional fee is associated with this course.

MUS 5320 - Methods of Teaching Middle School Music (2)

Objectives, materials, subject matter and problems in the teaching of vocal and general music in the middle school. This course is co-listed with MUS 4320. Prerequisite(s): MUS 3305 or MUS 3306 or instructor consent. An additional fee is associated with this course. This is a professional education course.

MUS 5330 - Current Trends in Music Education (3)

Examines how the psychology, sociology and philosophical foundations of music education in the United States impact current music educational trends. Prerequisite(s): Admission to the MA Music program. An additional fee is associated with this course.

MUS 5350 - Kodaly Methods and Materials I (3)

Introduction to the philosophical bases of Kodaly curriculum. Curriculum development, teaching techniques, analytical study and collection of music literature/materials for Kindergarten and Grade 1. An additional fee is associated with this course.

MUS 5351 - Kodaly Solfege I (2)

Learn the tools of Kodaly, concentrating on pentatonic scale and intervals, sight singing, score reading, dictation and analysis. An additional fee is associated with this course.

MUS 5352 - Kodaly Choral Techniques I (1)

Introduction to the development of choral conducting techniques used in children's choral literature. Performance in a large ensemble is part of this course. An additional fee is associated with this course.

MUS 5360 - Kodaly Methods and Materials II (3)

Teaching techniques, scope and sequence for spiral-based curricula, lesson planning, analytical study and the collection of music literature needed for students in grade 2-3. Prerequisite(s): MUS 5350. An additional fee is associated with this course.

MUS 5361 - Kodaly Solfege II (2)

Using moveable do solfege and rhythm syllables, concentrating on extended pentatonic scale, diatonic scale, modes and intervals through sight singing, score reading and analysis. Prerequisite(s): MUS 5351. An additional fee is associated with this course.

MUS 5362 - Kodaly Choral Techniques II (1)

Continuing development of choral conducting techniques used in children's choral literature. Performing in a large ensemble is part of this course. Prerequisite(s): MUS 5352. An additional fee is associated with this course.

MUS 5370 - Kodaly Methods and Materials III (3)

Teaching techniques, scope and sequence for spiral-based curricula, lesson planning, analytical study and collection of music literature needed for students in grades 4 and 5. Prerequisite(s): MUS 5360. An additional fee is associated with this course.

MUS 5371 - Kodaly Solfege III (2)

Review of Kodaly concept tools. In-depth study of the diatonic and modal scales, including sight singing, score reading, dictation and analysis. Prerequisite(s): MUS 5361. An additional fee is associated with this course.

MUS 5372 - Kodaly Choral Techniques III (1)

Continuation of the development of choral conducting techniques used in children's choral literature. Performing in a large ensemble is part of this course. Prerequisite(s): MUS 5362. An additional fee is associated with this course.

MUS 5391 - Jazz Pedagogy (2)

Techniques, systems and materials for teaching of jazz ensembles and jazz improvisation. Supervised conducting experience with a University jazz ensemble. This course is co-listed with MUS 4381. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Graduate Music Student. An additional fee is associated with this course.

MUS 5400 - Advanced Conducting (2-3)

The development of adequate baton and rehearsal techniques based on practical work with groups of performers. May be repeated for a maximum of 8 credit hours. Prerequisite(s): Admission to the MA Music program. An additional fee is associated with this course.

MUS 5410 - Electronic Music Production Techniques (3)

Tools and techniques used in electronic music production, including MIDI, OpenSoundControl, synthesis, sampling, loops, and others. This course is co-listed with MUS 4410. Prerequisite(s): MUS 2410. An additional fee is associated with this course.

MUS 5430 - Seminar in Music Technology (3)

Advanced individual and/or group work in music technology and audio production. May be repeated for a maximum of 4 semester hours. Prerequisite(s): MUS 5500 and MUS 5410. An additional fee is associated with this course.

MUS 5440 - Music Technology and Culture (3)

A critical exploration of the constantly changing relationships between society, artists, engineers and the technologies they use. An additional fee is associated with this course.

MUS 5445 - Contemporary Electronic Music Analysis (3)

Students will explore the combination of close listening, software-based musical analysis, research, and descriptive writing to create multi-faceted analyses of experimental and popular contemporary electronic music. An additional fee is associated with this course.

MUS 5460 - Music Technology Performance III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5470 - Advanced Audio Production (3)

Advanced concepts and techniques in audio production and music technology. Stereo and surround recording techniques, signal processing chains, mixing techniques, mastering, and other advanced topics. This course is co-listed with MUS 4470. An additional fee is associated with this course.

MUS 5480 - New Technologies Ensemble (0-1)

The New Technologies Ensemble is a select group which performs compositions, improvisations, and original music and arrangements collaboratively created by the members. Membership selected by audition. This course is co-listed with MUS 4480. May

be repeated. An additional fee is associated with this course.

MUS 5500 - Audio for X (3)

Tools, techniques, and creative approaches to creating audio and designing sound for various environments, including films, games, interactive media, and others. This course is co-listed with MUS 4400. Prerequisite(s): MUS 2410. An additional fee is associated with this course.

MUS 5507 - Graduate Secondary Keyboard Lessons (1.5)

Secondary private lesson study in any keyboard instrument listed in this catalog. May be repeated. Prerequisite(s): Initial enrollment by consent of applied area faculty. An additional fee is associated with this course.

MUS 5510 - Piano III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5511 - Piano Pedagogy I - The Beginner (3)

Goals, methods, and materials for individual and class instruction of beginning piano students. Includes practice teaching and observation. This course is co-listed with MUS 4511. Prerequisite(s): Two semesters of MUS 1510 or equivalent. An additional fee is associated with this course.

MUS 5512 - Piano Pedagogy II - The Intermediate Student (3)

Goals, methods, and materials for teaching intermediate piano students. Includes practice teaching and observation. This course is co-listed with MUS 4512. Prerequisite(s): Two semesters of MUS 1510 or equivalent. An additional fee is associated with this course.

MUS 5513 - Piano Pedagogy III - The Advanced Student (3)

Goals, methods, and materials of advanced piano teaching. Includes practice teaching and observation. This course is co-listed with MUS 4513. Prerequisite(s): Two semesters of MUS 1510 or equivalent. An additional fee is associated with this course.

MUS 5514 - Piano Pedagogy IV - Seminar (3)

Intensive individual study in piano pedagogy designed to improve the student's understanding of a selected area of interest. This course is co-listed with MUS 4514. Prerequisite(s): MUS 5511 or MUS 5512 or MUS 5513. An additional fee is associated with this course.

MUS 5515 - Practice Teaching in Piano (3)

Supervised teaching of piano students. Course must be repeated. This course is co-listed with MUS 4515. Prerequisite(s): MUS 5511 and MUS 5512. An additional fee is associated with this course.

MUS 5520 - Organ III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. Approved by audition. May be repeated. An additional fee is associated with this course.

MUS 5600 - Vocal Pedagogy (2)

For prospective singing teachers. Includes study of the physiology of the vocal instrument, the techniques of singing production, goals and materials, teaching techniques, and analysis of vocal problems. Observation of master teachers, and supervised teaching will be required. This course is co-listed with MUS 4600. Prerequisite(s): Three years of vocal training. An additional fee is associated with this course.

MUS 5607 - Graduate Secondary Voice Lessons (1.5)

Secondary private lesson study in voice. May be repeated. Prerequisite(s): Initial enrollment by consent of applied area faculty. An additional fee is associated with this course.

MUS 5610 - Voice III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5707 - Graduate Secondary String Lessons (1.5)

Secondary private lesson study in any string instrument listed in this catalog. May be repeated. Prerequisite(s): Initial enrollment by consent of applied area faculty. An additional fee is associated with this course.

MUS 5710 - Violin III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5715 - Viola III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5720 - Cello III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5725 - String Bass III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5807 - Graduate Secondary Woodwind Lessons (1.5)

Secondary private lesson study in any woodwind instrument listed in this catalog. May be repeated. Prerequisite(s): Initial enrollment by consent of applied area faculty. An additional fee is associated with this course.

MUS 5810 - Flute III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5815 - Clarinet III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5820 - Oboe III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5825 - Saxophone III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5830 - Bassoon III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5907 - Graduate Secondary Brass and Percussion Lessons (1.5)

Secondary private lesson study in any brass instrument listed in this catalog or in percussion. May

be repeated. Prerequisite(s): Initial enrollment by consent of applied area faculty. An additional fee is associated with this course.

MUS 5910 - Trumpet III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5915 - French Horn III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5920 - Trombone III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5925 - Euphonium III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5930 - Tuba III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

MUS 5960 - Percussion III (3)

Advanced study in applied music. Technical exercises and music literature adjusted to the needs of the individual. May be repeated. Prerequisite(s): Approval by audition. An additional fee is associated with this course.

NET 5000 - Special Problem in Networking (2-6)

Meets individual student needs for additional research and\or laboratory experiences in the development of knowledge and skills in area of networking. May be repeated for a maximum of 6 semester hours. An additional fee is associated with this course.

NET 5100 - Network Device Configuration (3: 2 lecture, 1 lab)

A comprehensive overview of Cisco Systems device configuration. This course is co-listed with NET 4100. Prerequisite(s): Required for non-NET specialist. Not open to NET specialist. An additional fee is associated with this course.

NET 5500 - Managerial Design for Secure Networks (3)

Utilizing Cisco Systems Architecture for Voice, Video and Integrated Data networks to apply modular design practices to ensure the enterprise solution is highly available and optimized for the business and technical needs. This course is co-listed with NET 4500. Prerequisite(s): NET 5100. An additional fee is associated with this course.

NET 5501 - Network Security Management I (3)

Utilizing Cisco Systems routers for network and overall security processes focusing on designing and implementing solutions that will reduce the risk of revenue loss and vulnerability. This course is co-listed with NET 4501. Prerequisite(s): NET 5100 An additional fee is associated with this course.

NET 5502 - Network Security Management II (3)

An emphasis on security policy design and management, security technologies, firewall and secure router design, installation, configuration and maintenance, AAA and VPN implementation using Cisco Systems' routers and firewalls. This course is co-listed with NET 4502. Prerequisite(s): NET 5501. An additional fee is associated with this course.

NUR 5000 - Methods of Research in Nursing (3)

Generating research questions, conducting and critiquing nursing research are explored. An additional fee is associated with this course.

NUR 5015 - Theories of Nursing (3)

Theory, theory development, application of theory in nursing practice settings and theory critique are explored. Prerequisite(s): Admission to the graduate nursing program or instructor consent. An additional fee is associated with this course.

NUR 5016 - Family/Population Health (3)

Theories and research findings are analyzed in determining the scientific and practice base of rural and family nursing. Prerequisite(s): Admission to the graduate nursing program. An additional fee is associated with this course.

NUR 5017 - Organizational Leadership in Complex Health Systems (3)

Through exploration of information systems and technologies, the graduate nurse will have skills and leadership to improve quality, enhance patient safety, and impact health in individuals, groups, and populations. An additional fee is associated with this course.

NUR 5018 - Heath Care Policy and Advocacy (3)

Analysis of health care system policy and advocacy techniques, and their effect on healthcare delivery outcomes. An additional fee is associated with this course.

NUR 5020 - Pharmacology for Advanced Practice Nursing (3)

Clinical application of pharmacological treatments commonly encountered by the advanced practice nurse. Explores the advanced practice nurse role in prescribing, administering and monitoring drug therapy. An additional fee is associated with this course.

NUR 5035 - Measurement in Nursing (2)

An overview of the measurement process in nursing science with emphasis on national/state and teacher/researcher data collection instruments. An additional fee is associated with this course.

NUR 5038 - Nurse Educator: Concepts of Physiology/Pathophysiology, Pharmacology and Advanced Assessment (3)

Integrates concepts and principles of pathophysiology, pharmacology, and advanced health assessment. An additional fee is associated with this course.

NUR 5039 - Nurse Educator: Direct Patient Care Clinical Practica (1)

Clinical application of the engagement of the patient and their family as the source of control and full partner in health care. Prerequisite(s): NUR 5000, NUR 5015, NUR 5016, NUR 5017, NUR 5018, NUR 5035, NUR 5038, NUR 5040, NUR 5041 or concurrently, NUR 5050, and Graduate Statistics. An additional fee is associated with this course.

NUR 5040 - Teaching Theory in Nursing (3)

Theories and principles of teaching and learning are analyzed for applicability to the teaching of nursing science. An additional fee is associated with this course.

NUR 5041 - Teaching Clinical Practice in Nursing (3)

An introduction to teaching and learning in nursing practice settings. Prerequisite(s): NUR 5000, NUR 5015, NUR 5016, NUR 5017, NUR 5018, NUR 5035, NUR 5038, NUR 5039, or concurrently, NUR 5040, NUR 5050, and Graduate Statistics. An additional fee is associated with this course.

NUR 5050 - Designing Nursing Curricula (3)

An analysis of the processes for designing and implementing nursing curricula. An additional fee is associated with this course.

NUR 5110 - Simulation Education and Facilitation (3)

Analysis of the pedagogy of simulation education, models for scenario design, standards for best practice, and key components related to facilitation, debriefing and evaluation. Prerequisite(s): Enrolled in the graduate nursing program. An additional fee is associated with this course.

NUR 5120 - Leadership and Management Concepts in Simulation (3)

Evaluation concepts, theories, and skills related to leadership and management in simulation education. Prerequisite(s): Enrolled in the graduate nursing program. An additional fee is associated with this course.

NUR 5130 - Simulation Education Capstone (3)

The capstone course of the Simulation Education Graduate Certificate program. Participants will explore in-depth current issues and innovative trends in simulation education. Participants will complete a final project that will incorporate content from all three courses. Prerequisite(s): NUR 5110; NUR 5120; Enrolled in the graduate nursing program. An additional fee is associated with this course.

NUR 5300 - Advanced Pathophysiology Across the Lifespan (3)

An examination of pathophysiological alterations associated with individuals seeking primary care. An additional fee is associated with this course.

NUR 5405 - Aging of Self and Others (2)

Seminar concerning an individual's aging in our society. Focus is on how one perceives and adapts to the aging of self and others. Open to nursing and non-nursing majors. This course is co-listed with NUR 4405. An additional fee is associated with this course.

NUR 5410 - Advanced Health Appraisal (4)

Advanced health assessment skills essential to primary health care. Expands upon previous health and wellness knowledge and physical assessment abilities. Includes an integrated clinical practicum. Prerequisite(s): NUR 5020 and NUR 5300. Post Master's FNP students will receive a gap analysis evaluating any prior credit from original MSN program. An additional fee is associated with this course.

NUR 5420 - Family Nurse Practitioner: Primary Care I (3)

Prepares Family Nurse Practitioner students to assess, diagnose, and manage selected health problems of diverse populations across the lifespan. Focus is on individuals and families in the primary care setting with emphasis on health promotion of selected acute and chronic health problems. Prerequisite(s): NUR 5410. Corequisite(s): NUR 5421. An additional fee is associated with this course.

NUR 5421 - Family Nurse Practitioner: Primary Care I Practicum (2)

Application of concepts in select clinical settings with an emphasis on individuals and families in primary care settings. Emphasis is placed on delivering culturally competent health care and diagnostic reasoning. Prerequisite(s): NUR 5410. Corequisite(s): NUR 5420. An additional fee is associated with this course.

NUR 5430 - Family Nurse Practitioner: Primary Care II, Women's Health (2)

Application of theory and research for the primary care of women across the lifespan in the advanced practice nursing role. Prerequisite(s): NUR 5420 and NUR 5421. Corequisite(s): NUR 5440 and NUR 5441. An additional fee is associated with this course.

NUR 5440 - Family Nurse Practitioner: Primary Care II, Pediatrics (2)

Application of theory and research in the advanced practice nursing care of children. Prerequisite(s): NUR 5420 and NUR 5421. Corequisite(s): NUR 5430 and NUR 5441. An additional fee is associated with this course.

NUR 5441 - Family Nurse Practitioner: Primary Care II Practicum (2)

Health management of children, women, adults, and families within the context of advanced practice nursing. Focus is on selected acute and chronic health care problems if children, women, adults, and families in primary health care settings. Prerequisite(s): NUR 5420 and NUR 5421. Corequisite(s): NUR 5430 and NUR 5440. An additional fee is associated with this course.

NUR 5450 - Family Nurse Practitioner: Primary Care III (2)

Evaluation of issues and trends for family nurse practitioner students in a culturally diverse environment. Emphasis is on the management of complex disease processes and issues. Prerequisite(s): NUR 5430, NUR 5440 and NUR 5441. Corequisite(s): NUR 5451. An additional fee is associated with this course.

NUR 5451 - Family Nurse Practitioner: Primary Care III Practicum (3)

Primary Care Management of Individuals and Families. Family Nurse Practitioner students to apply all previously required courses in select clinical settings. Prerequisite(s): NUR 5430, NUR 5440 and NUR 5441. Corequisite(s): NUR 5450. An additional fee is associated with this course.

NUR 5500 - Special Projects in Nursing (1-3)

Investigation of contemporary problems and issues in nursing by selected individuals or groups. This course is co-listed with NUR 4000. May be repeated for a maximum of 6 semester hours. An additional fee is associated with this course.

NUR 5520 - Grief and Loss (2)

A seminar designed to assist various pre-professionals to understand and deal with loss and death either in a professional capacity or on a personal basis. Open to nursing and non-nursing majors. This course is co-listed with NUR 4020. An additional fee is associated with this course.

NUR 5530 - Human Sexuality (2)

Current theory regarding the biological, cultural, and behavioral parameters of human sexuality. Open to nursing and non-nursing majors. This course is co-listed with NUR 4030. An additional fee is associated with this course.

NUR 5540 - Nursing Informatics (2)

Introduces the student to the synergistic use of nursing, information and computer sciences unique to nursing informatics. Explores impact on nursing practice roles and quality of patient care. This course is co-listed with NUR 4040. Prerequisite(s): Meeting general education requirement for technology. An additional fee is associated with this course.

NUTR 5007 - Pediatric Nutrition (3)

This course examines nutrition beginning in utero and continuing up to 18 years of age in health and disease. Medical nutrition therapy for a variety of medical conditions found in this population will be discussed including inborn errors of metabolism, food hypersensitivity, obesity, and diseases of the major organ systems. Prerequisite(s): NUTR 5017 or Instructor consent

NUTR 5008 - Geriatric Nutrition (3)

Description: The course covers: demographic facts about elders, physiological, sociological, and psychological changes associated with aging, and some introductory material about nutritional status in elders. The remainder of the course covers food habits, nutritional assessment, nutrient requirements, dietary and nutritional status of elders, diseases or conditions common in elders and exercise for elders. Prerequisite(s): NUTR 5017 or Instructor consent

NUTR 5010 - Advanced Nutrition and Human Metabolism (3)

An in-depth study of human nutrition which includes the study of various food and nutrients in human metabolism, nutritional genomics, pharmacokinetics, analysis of physiology and biochemistry as they relate to nutrition care in health and various disease processes including psychiatric disorders. This course is co-listed with NUTR 4010. Prerequisite(s): Admission to MS Nutrition program.

NUTR 5011 - Food Systems Management (3)

This course covers leadership, business and management principles to guide practice in an ethical

manner. The students learn to assign responsibilities according to scope of practice and personal competence and to measure productivity and meet budget priorities. Workflows are designed and analyzed to make recommendations for policies and performance measures for quality and quantity of work. Students apply food systems principles and food preparation techniques to ensure safe and efficient delivery of food and water. Students use a matrix or measure to evaluate the need for financial, technical and equipment resources for the provision of food services and understand contractual agreements. They develop a plan to minimize vulnerabilities in the food supply chain and optimize opportunities to reduce the environmental carbon footprint of foodservice operations. Prerequisite(s): Admission to MS Nutrition.

NUTR 5012 - Medical Nutrition Therapy I (3)

This course is designed to provide students, enrolled in the Future Education Model Master of Science in Nutrition, with the opportunity to integrate the theories and principles of medical nutrition therapy into clinical practice. Case studies will be used to help students integrate and apply their knowledge of nutrition, dietetics, metabolism and physiology, with the ultimate goal of producing students who can effectively plan and manage the nutritional care of a variety of patients using a critical thinking approach to evidence-based medical/nutrition therapy. Topics include: the nutrition care process, standardized language and documentation, assessment, interviewing, evidence-based medical nutrition therapy, diabetes mellitus, and kidney disease, as well as confidentiality of medical records and regulations. Prerequisite(s): Admission to the MS Nutrition program.

NUTR 5013 - Practical Applications in Nutrition Research (3)

The main goal of this course is to provide graduate students in nutrition with critical thinking and problem-solving skills in conducting and evaluating nutrition research. This will be accomplished by learning about research design, ethics in conducting research, statistical methodologies (quantitative), critiquing journal articles and by solving problem sets using the statistical software SPSS. Prerequisite(s): Admission to MS Nutrition program.

NUTR 5014 - Advanced Community Nutrition (3)

This is a graduate level clinical nutrition class in which students learn the essential steps and rationale in providing nutrition care for patients in acute, long-term and ambulatory settings. Evidence-based nutrition therapy and the basic scientific principles for its application are reviewed for the most common and important clinical nutrition issues. NUTR 5014 can serve as an update for practitioners working in the field. Prerequisite(s): NUTR 5010, NUTR 5011, NUTR 5012, and NUTR 5013 with a grade of B or better

NUTR 5015 - Macronutrients (3)

Macronutrients is an advanced Dietetics and Nutrition course. Students are expected to be familiar with the material covered in introductory nutrition as well as the biochemistry and physiology courses which will serve as the foundation for this comprehensive course. This course covers topics related to energy, carbohydrates, fiber, lipids, lipoproteins, amino acids, proteins, and integrative metabolisms. Since this is a completely online course the course contents will be delivered through Brightspace. Prerequisite(s): NUTR 5010, NUTR 5011, NUTR 5012, and NUTR 5013 with a grade of B or better.

NUTR 5016 - Micronutrients (3)

This course is designed to provide an advanced level of understanding of the role of micronutrients, primarily vitamins and minerals, in human health. Although the main emphasis of the course is, the study of the regulation of metabolic pathways by micronutrients in healthy individuals, mechanisms leading to failure of these processes and subsequent consequences (pathophysiological conditions) will also be presented. Micronutrient mediated gene expression and the genome dependent regulation of micronutrient metabolism will be presented. Prerequisite(s): NUTR 5010, NUTR 5011, NUTR 5012, and NUTR 5013 with a grade of B or better.

NUTR 5017 - Nutrition Across the Lifespan (3)

This course is designed to provide an advanced level of understanding of nutritional requirements and nutritional risk factors across the life cycle of humans. Nutrition assessment methods including food intake

history, anthropometric and biochemical data and a nutrition focused physical exam across the lifecycle will be identified and discussed. Although the main emphasis of the course is on the various metabolic processes occurring in normal healthy individuals, mechanisms leading to failure of these processes and subsequent consequences (pathophysiological conditions) will also be presented. Prerequisite(s): NUTR 5010, NUTR 5011, NUTR 5012 and NUTR 5013 with a grade of B or better.

NUTR 5018 - Nutrition Education and Counseling (3)

Designed to assist in the development of skills related to nutrition counseling and communication, as well as enhance group nutrition education experience and skills. This course is co-listed with NUTR 4018. Prerequisite(s): NUTR 5012.

NUTR 5019 - Advanced Medical Nutrition Therapy (3)

This course is designed to provide students, enrolled in the Future Education Model Master of Science in Nutrition, with the opportunity to integrate the theories and principles of medical nutrition therapy into clinical practice. Case studies will be used to help students integrate and apply their knowledge of nutrition, dietetics, metabolism and physiology, with the ultimate goal of producing students who can effectively plan and manage the nutritional care of a variety of patients using a critical thinking approach to evidence-based medical/nutrition therapy. Topics include: the nutrition care process, standardized language and documentation, assessment, interviewing, evidence-based medical nutrition therapy, cardio vascular disease, Oncology, GI, and renal disease, as well as confidentiality of medical records and regulations. Prerequisite(s): NUTR 5012.

NUTR 5020 - Dietary Supplements (3)

This course will explore various aspects of herbs and dietary supplements (DS) as part of Complementary and Alternative Medicine (CAM) therapies. This course provides the health professional with the use, evidence, and adverse effects of the most commonly used dietary supplements as well as how to manage a clinical encounter with a patient taking supplements. The information provided in this course will assist the practitioner in making sound decisions when assessing or prescribing dietary supplements. This course is co-listed with NUTR 4020. Prerequisite(s): NUTR 5010.

NUTR 5300 - Nutrition and Human Performance (3)

Nutrition as it applies to athletics, physical exercise, and health. This course is co-listed with NUTR 4300. Prerequisite(s): KIN 1800 and KIN 2850.

NUTR 5360 - Seminar in Foods and Nutrition (2-3)

Intensive investigation and discussion of specific problems in foods and nutrition. Minor professional research problems may lead to a thesis. May be repeated for a maximum of 6 semester hours. Prerequisite(s): NUTR 3340.

NUTR 5930 - Sports Nutrition and Metabolism (3)

An in-depth study of specific nutrient needs for the youth and adult sport population and the metabolic responses to acute and chronic exercise.

NUTR 6010 - Clinical Supervised Experiential Learning (4)

This clinical supervised learning experience will prepare students for professional practice with clients/patients with various conditions, including, but not limited to overweight and obesity; disordered eating; developmental, intellectual, behavioral health, neurological, and endocrine disorders; cancer; malnutrition; and cardiovascular, gastrointestinal and renal diseases. Prerequisite(s): NUTR 5019 with a grade of B or better.

NUTR 6011 - Community Supervised Experiential Learning (3)

This Community supervised learning experience includes experiences to prepare students to implement the Nutrition Care Process with various populations of diverse cultures, genders and across the life cycle including infants, children, adolescents, adults, pregnant/lactating females and older adults. Learning experiences using a variety of educational approaches necessary for delivery of curriculum

content to meet learner needs and competencies. Student will apply community and population nutrition health theories when providing support to community or population nutrition programs. Prerequisite(s): NUTR 5014 with a grade of B or better or consent of instructor.

NUTR 6012 - Management Supervised Experiential Learning (3)

This Supervised Experiential Learning experience covers leadership, business and management principles to guide practice in an ethical manner. The students learn to assign responsibilities according to scope of practice and personal competence and to measure productivity and meet budget priorities. Workflows are designed and analyzed to make recommendations for policies and performance measures for quality and quantity of work. Students apply food systems principles and food preparation techniques to ensure safe and efficient delivery of food and water. Students use a matrix or measure to evaluate the need for financial, technical and equipment resources for the provision of food services and understand contractual agreements. They develop a plan to minimize vulnerabilities in the food supply chain and optimize opportunities to reduce the environmental carbon footprint of foodservice operations. Prerequisite(s): NUTR 5011 with a grade of B or better or consent of instructor.

NUTR 6013 - Special Problems in Foods and Nutrition (1-3)

An in-depth study of specific aspects of nutrition/foods with a focus on research, clinical, community, or management areas. Group and/or individual problems will be addressed and presented in a variety of formats including poster sessions, research reports, and oral presentations at local/regional science meetings. May be repeated for a maximum of 3 semester hours.

PE 5000 - Special Projects in Physical Education (1-3)

Individual or group study of selected topics. May be repeated for a maximum of 8 semester hours. Prerequisite(s): school chair consent.

PE 5150 - Introduction to Applied Research in Physical Education and Coaching (3)

Introduction to research methods, information retrieval systems, basic types of procedures, designs, and discussions of methods of data analysis to facilitate the understanding of research journals in physical education and coaching.

PE 5175 - Introduction to Standards-Based Coaching (3)

An investigation and analysis of national and international coaching standards. Students apply the standards of coaching to their own coaching positions.

PE 5200 - Effective Teaching in Physical Education (3)

Present and analyze systems used in evaluating student behavior, teacher behavior, and student-teacher interaction. Study strategies for planning and implementing effective teaching and supervising in physical education.

PE 5350 - Philosophy & Ethics in Coaching (3)

An examination of values and moral dilemmas in sport coaching. Various issues and their impact on a coach's philosophy are investigated.

PE 5370 - Curriculum Theory in Physical Education (3)

Advanced study of curriculum and techniques of supervision in physical education.

PE 5420 - Growth and Physical Performance of the Preschool and Elementary Child (3)

Examine key developmental progressions and maturational timelines as they guide appropriate physical activity and performance expectations in PreK-6th grade.

PE 5450 - Physical Activity Promotion (3)

Investigate behavior change theories, public health research, and evidence-based physical activity interventions in the promotion of physical activity in children and adolescent.

PE 5500 - Behavior Interventions in Physical Education (3)

Examine and apply key psychological principles in physical education related to behavior modification, student motivation, achievement goal setting, group dynamics, pro-social behavior, and self-perception.

PE 5550 - Organization & Administration in Coaching (3)

An analysis of the general principles of administration in sport coaching. Students examine common practices and knowledge related to the administration of a sport (legal liability, planning, scheduling, eligibility, etc.).

PE 5600 - Growth and Development and Athletic Injuries (2)

Growth and development of children and youth with emphasis on their vulnerability to athletic injury. Prerequisite(s): PE 2800.

PE 5610 - Advanced Athletic Training Techniques (3)

Advanced methods of injury prevention, recognition, and treatment of athletic injuries. Prerequisite(s): PE 3610, PE 3800, and KIN 5830. KIN 5830 may be taken concurrently.

PE 5620 - Modalities and Rehabilitation of Athletic Injuries (2)

The use of therapeutic modalities and exercises in athletic injury rehabilitation. Prerequisite(s): PE 5610 or concurrently.

PE 5630 - Internship in Athletic Training (2)

Provides clinical clock hour experience under the supervision of a N.A.T.A. Certified Athletic Trainer. May be repeated for a maximum of 6 semester hours. Prerequisite(s): PE 5610 or concurrently.

PE 5650 - Physical Education for Special Populations (3)

Investigate best practices in physical education with special populations as required by law. Students will examine current pedagogical research focusing on strategies for providing safe, inclusive and equitable learning environments for special populations.

PE 5840 - Principles of Motor Learning (3)

The physical and psychological factors affecting the acquisition of motor skills.

PE 5855 - Motivational Aspects of Coaching (3)

An examination of sport coaching strategies that impact motivation, goal setting, anxiety, and developmental changes that impact sport performance.

PE 5950 - Assessment in Physical Education (3)

Apply tests, measurements, and statistical analysis in the evaluation physical fitness, psychomotor skills, cognitive knowledge, and affective behaviors in physical education students will assess the efficacy of their teaching and programs using applied, systematic observation tools, and solid assessment strategies.

PE 6190 - Trends and Issues in Physical Education and Coaching (3)

Directed reading and special investigation of selected problems. Identification, analysis, and discussion of on-the-job problems.

PE 6950 - Professional Seminar in Physical Education (3)

Capstone course focused on applying of learning outcomes from the masters of kinesiology physical education curriculum. Demonstration of content knowledge, pedagogical content knowledge, and methods of systematic inquiry, as well as plans for continued professional development will be a major part of the culminating experience.

PE 6960 - Research Problems (2)

Special investigation of an approved problem in the major field. Prerequisite(s): KIN 5900.

PHYS 5010 - Current Theories and Practices in Physics (3-5)

Designed for teachers. Content varies but typically covers aspects of mechanics, heat, sound, electricity and magnetism, optics, or modern physics. May be repeated for a maximum of 10 semester hours. Prerequisite(s): Consent.

PHYS 5312 - Electricity and Magnetism (3)

Electric and magnetic fields; scalar and vector potentials; conductors and dielectrics; Coulomb's law, Ampere's law, and Gauss's laws; Laplace's equation; Maxwell's equations. This course is co-listed with PHYS 4312. Prerequisite(s): PHYS 2122 and MATH 2153.

PHYS 5411 - Thermodynamics (3)

Properties of gases, kinetic theory of gases; laws of thermodynamics; entropy and introduction to statistical thermodynamics. This course is co-listed with PHYS 4411. Prerequisite(s): PHYS 2122 or concurrently.

PHYS 5512 - Introduction to Quantum Mechanics (3)

Experimental basis; fundamental postulates; Schrodinger wave equation; superposition of states; calculation of energy, position, momentum; hydrogen atom; identical particles; perturbation theory. This course is co-listed with PHYS 4512. Prerequisite(s): PHYS 3511 and MATH 2153.

PHYS 5513 - Solid State Physics (3)

Crystal structure and diffraction; thermal, electrical, and magnetic properties; band theory of solids; Brillouin zones. This course is co-listed with PHYS 4513. Prerequisite(s): PHYS 3512. Corequisite(s): PHYS 3080.

PHYS 5711 - Atomic and Nuclear Physics (3)

Designed to use introductory quantum concepts and techniques as applied to the analysis of atoms and nuclei. This course is co-listed with PHYS 4711. Prerequisite(s): PHYS 3512.

PHYS 5911 - Special Problems in Physics (1-3)

Individual work under supervision of a staff member. Problems may be undertaken in any phase of physics. This course is co-listed with PHYS 4911. May be repeated for a maximum of 6 semester hours.

PHYS 5951 - Physics Research for Teachers (1-5)

Individual work on a physics research project under the supervision of a physics staff member. Project will terminate in a written and oral presentation. May be repeated for a maximum of 10 semester hours. Prerequisite(s): Consent.

POLS 5511 - Public Policy (3)

The course examines the public policymaking process as well as the forces that shape US policy in the context of globalization. This course is co-listed with POLS 4511. Prerequisite(s): .Consent from instructor.

POLS 5520 - Principles of International Development (3)

Problems of development in the developing nations of the world and the concepts and theories for their comparative analysis. This course is co-listed with POLS 4520.

POLS 5530 - International Law (3)

An examination of its nature, history, philosophies, and basic rules as found in treaties, court decisions, customs, and other sources. This course is co-listed with POLS 4530.

POLS 5531 - American Foreign Policy (3)

The foreign policy of the United States with specific focus on the policy authority of the American President, the Congress, the Courts. United States' foreign policies toward Russia, Europe, and the Middle East are also considered. This course is co-listed with POLS 4531.

POLS 5552 - Legislative Politics (3)

The major functions, roles, powers, processes and development of the national and state legislatures. Special attention is given to legislative elections, leadership and decision-making. This course is co-listed with POLS 4552.

POLS 5555 - The American Presidency (3)

The constitutional origins of the presidency, its powers, selection process, and the presidents' relations with the public, the media, political parties, and the other major institutions of government. Particular emphasis is on the presidency as an institution of leadership. This course is co-listed with POLS 4555.

POLS 5571 - Municipal Administration (3)

Principles of municipal administration as they operate in the United States under the various forms of municipal governments. This course is co-listed with POLS 4571.

POLS 5572 - Federalism and Intergovernmental Relations (3)

This course examines federalism and the coordination and collaboration between federal, state, and local governments. Special attention is given to the challenges of policy management and intergovernmental relations as well as various actors in state and local government such as quasi-public entities, non-profits, and private organizations. This course is co-listed with POLS 4572.

POLS 5573 - Administrative Law (3)

This course will examine the development of modern administrative law, its sources of authority, and the methods in which federal and state agencies exercise their authority in our system of government. This course is co-listed with POLS 4573.

POLS 5580 - American Constitutional Law (3)

An interpretation of our constitutional heritage, including the growth of federal judicial power and the role of the Supreme Court. This course is co-listed with POLS 4580.

POLS 5581 - Civil Rights and Liberties (3)

Except for the First Amendment, this course examines individual rights and liberties found within and outside of the Constitution. This course is co-listed with POLS 4581.

POLS 5583 - First Amendment (3)

Examines First Amendment controversies, including flag burning, obscenity, libel, hate speech, free press vs. fair trial, and freedom of and from religion. This course is co-listed with POLS 4583.

POLS 5590 - Readings in Political Science (1-6)

Selected readings designed to strengthen weak points in student's program as recommended by the student's adviser. May be repeated for a maximum of 6 semester hours.

POLS 5591 - Internship in Political Science (1-6)

Practical experience with a governmental or political unit. Supervision by professional of unit and by member of University faculty. This course is co-listed with POLS 4591. May be repeated for a maximum of 6 semester hours. Prerequisite(s): School consent.

POLS 5592 - Problems in National, State or Local Government (1-3)

Special problems in government, selected by student and instructor. This course is co-listed with POLS 4592. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Instructor consent.

POLS 5990 - Special Projects in Political Science (1-6)

Study, interpretation, and discussion of special topics and problems in political science. This course is co-listed with POLS 4590. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Instructor consent.

PR 5600 - Seminar in Public Relations (3)

Exploration of specialized areas and theories of public relations. May be repeated for a maximum of 6 semester hours.

PR 5601 - Special Topics in Public Relations (1-3)

Topics of contemporary interest in public relations, variable content. Students who earned undergraduate credit for PR 4600 may not take PR 5601 for graduate credit. This course is co-listed with PR 4600. May be repeated for a maximum of 9 semester hours.

PR 5610 - Public Relations Management and Industry Practices (3)

Acquaints students, through discussion and application, with the basic concepts of "doing public relations in business" as a means of readying them to enter the world of organizational operation in the marketplace of ideas and competition. Students who earned undergraduate credit for PR 4610 may not take PR 5610 for graduate credit. This course is co-listed with PR 4610.

PR 5620 - Strategic Communications (3)

Students explore strategic and corporate communications, with public relations at its core, and engage in critical thought and discussion about the areas. The value of strategic communication to the successful attainment of business goals is closely examined.

PR 5621 - Global Strategic Communication (3)

Engages students an international understanding of PR and strategic communication as it relates to international business and organizational success. Students in this course will be able to engage in a critical analyses of a global organization's public relations and strategic communication efforts, identifying differences across cultures and countries. They will also engage in face-to-face conversations with global professionals for the purpose of networking and professional vision.

PR 5627 - Special Projects in Public Relations (1-3)

A student studies an area of public relations, under the direct Supervision of a public relations faculty member, which is not covered in a regularly offered course. This course is co-listed with PR 4627. May be repeated for a maximum of 9 semester hours. Prerequisite(s): PR 2620 and consent of instructor.

PR 5630 - Electronic & Social Media for Public Relations (3)

Students explore social media technologies and their strategic use in current and future public relations practice. Social media phenomena are changing the practice of public relations daily from theoretical and practical viewpoints. Students are exposed to methods for keeping up with the change. Students who earned undergraduate credit for PR 4630 may not take PR 5630 for graduate credit. This course is co-listed with PR 4630.

PR 5640 - Public Relations Graduate Internship (1-6)

The application of public relations knowledge and skill, along with implementation of directed research benefitting the employer, through a supervised experience. May be repeated for a maximum of 6 semester hours. Prerequisite(s): PR 5600 and instructor consent.

PR 5650 - Public Relations & Promotional Law (3)

Introduces students to legal and ethical issues in public relations and related promotional areas. Promotes an understanding of and appreciation for the U.S. legal system and ethics as they relate to public expression for the purpose of professional communication services. Students who earned undergraduate credit for PR 4650 may not take PR 5650 for graduate credit. This course is co-listed with PR 4650. Spring.

PR 5655 - Global Sports Public Relations (3)

Students learn the value of public relations in sports. Introduction to sport entertainment value and business operations. Exposure to public relations initiatives, events, effective media relations, and strategic communication plans relevant to sports. Students who earned undergraduate credit for PR

4655 may not take PR 5655 for graduate credit. This course is co-listed with PR 4655. Summer.

PR 5660 - Public Relations Readings (1-3)

The individual exploration of public relations theory, contexts and research through supervised instruction. May be repeated for a maximum of 6 semester hours. Prerequisite(s): PR 5600 and instructor consent.

PR 5670 - Strategic Crisis Communication (3)

Students are introduced to the process and experiences of thinking and planning strategically for public relations purposes when under crisis pressure. They study past and current crisis, CCPs, and public relations outcomes. Students who earned credit for PR 4670 may not also take PR 5670 for graduate credit. This course is co-listed with PR 4670.

PR 5675 - Media Training (3)

Includes introduction to on-camera experience as spokesperson following a crisis, managing an interview and interaction with the media, developing key messages and anticipating reporters' questions with a view to public relations objectives. Students who earned credit for PR 4675 may not also take PR 5675 for graduate credit. This course is co-listed with PR 4675.

PR 5685 - Strategic Public Relations Case Analysis (3)

Public relations problems of individual business and civic organizations; analysis of actual and proposed solutions. The class includes expanded discussions of public relations theories and their applications. This course is co-listed with PR 4685. Prerequisite(s): PR 3610 and PR 3620; ENGL 1020 and 1030 or CTE 3060 or ENGL 1080 with a grade of C or better.

PR 5690 - Public Relations Campaigns (3)

Capstone course and overview of the public relations campaign process with actual "hands on" application. Students plan, organize, write and pitch an actual public relations campaign. When the context allows, implementation follows. The PR Program capstone assessment project also takes place in this course. Students who earned undergraduate credit for PR 4690 may not take PR 5690 for graduate credit. This course is co-listed with PR 4690.

PSY 5000 - Special Projects in Psychology (1-3)

Individual or group study of problems in special areas of need or interest. May be repeated for a maximum of 3 semester hours. Prerequisite(s): School consent.

PSY 5010 - Thesis Preparation Seminar I (1)

Introduction to the process and requirements for completing a thesis in the area of Psychological Science. Prerequisite(s): Admission to the MS in Psychology program.

PSY 5020 - Thesis Preparation Seminar II (1)

Develop skills needed to complete a thesis in the area of Psychological Science , focusing on preparing a thesis prospectus. Prerequisite(s): PSY 5010.

PSY 5030 - Graduate Thesis Process and Mentorship (1)

Develop mentor relationships with psychology faculty and explore strategies for thesis completion in order to facilitate a successful thesis process. Prerequisite(s): PSY 5020 and PSY 2100 or PSY 2120 or equivalent.

PSY 5050 - Statistics for the Behavioral Sciences (3)

Basic statistical methods. The techniques used to analyze frequency distributions, correlations, and tests of significance. May not be taken for graduate credit by students in the MS in Psychology program.

PSY 5140 - Biological Bases of Behavior (3)

Survey of recent research in fields of biology, physiology, pharmacology, and medicine that influences the psychological aspects of human behavior. Prerequisite(s): PSY 3130.

PSY 5150 - Ethics and Professional Issues in Psychology (3)

Introduces the student to ethical issues in psychology. Explores dilemmas and professional issues in practice, and ethical concerns in research, education/training, consultation, and supervision. Prerequisite(s): Instructor consent.

PSY 5180 - Seminar in Psychology (1-3)

Selected issues not covered in theory-practicum courses. This course is co-listed with PSY 4180. May be repeated for a maximum of 6 semester hours. Prerequisite(s): PSY 1100 and junior status.

PSY 5220 - Advanced Child Psychology (3)

Development of the child with emphasis on the scientific viewpoint and theoretical conceptualization of child behavior. Prerequisite(s): PSY 2220.

PSY 5240 - Psychology of Aging (3)

Introduces psychological problems of aged population including: physical functioning, age changes in perception, memory, learning, problem solving, personality, environmental influences, death and dying. This course is co-listed with PSY 4240. Prerequisite(s): PSY 1100 and junior status.

PSY 5310 - Personality (3)

Addresses contemporary theory and research in personality, while considering how personality concepts can be applied to human behavior. Prerequisite(s): PSY 5710 and full admission to psychology graduate program or instructor consent.

PSY 5330 - Multicultural Psychology (3)

This knowledge-based course is an introduction to cultural and minority status issues in psychology and the role of multicultural issues in mainstream research. This course is co-listed with PSY 4330. Taught only as an online course.

PSY 5340 - Advanced Social Psychology (3)

Includes contemporary theory and research in several areas of social psychology (e.g., social cognition, social influence, aggression, social exchange and systems theory). Application to clinical settings is of special interest. Prerequisite(s): PSY 3340, and 15 semester hours of psychology or instructor consent.

PSY 5410 - Adult Psychopathology (3)

Discusses etiology, course, and treatment of psychiatric and neurological disorders. Includes the language modern psychodiagnosis. Phenomenologic principles, mental status examination, and DSM-IVTR are covered. Prerequisite(s): PSY 4440.

PSY 5460 - Introduction to Psychotherapy (3)

Designed to provide the student with an academic background from which to understand the dimensions, systems, and methods. Prerequisite(s): PSY 5310 and admission to the MS in Psychology program or instructor consent.

PSY 5520 - Advanced Statistics for the Behavioral Sciences (3)

Inferential statistics, probability, and tests of the significance of difference will be introduced. Prerequisite(s): PSY 3030 or PSY 2120.

PSY 5530 - Personality Assessment (3)

Making tentative diagnoses based on case histories, interviews, behavior observations and test data, including selecting, administering, scoring, and interpreting tests. Prerequisite(s): PSY 5310, PSY 5520, and Admission to the MS in Psychology program or instructor consent. An additional fee is associated with this course.

PSY 5540 - Introduction to Counseling Psychology (3)

Introduces theories and practice concepts of counseling psychology while exploring professional development issues relative to students pursuing this field. This course is co-listed with PSY 4540. Prerequisite(s): PSY 1100.

PSY 5560 - Individual Intelligence Testing (4: 3 lecture, 1 lab)

Administration, scoring, and interpretation of major individual intelligence scales. Students may rent kits and purchase protocols from the Department of

Nutrition, Kinesiology, and Health. Students must provide their own examinees. Prerequisite(s): Instructor consent. This is a professional education course.

PSY 5580 - Clinical Neuropsychology (3)

An introduction to adult clinical neuropsychology that includes history, techniques, practical applications, neurobehavioral anatomy, neuropathology, syndrome identification and training, credentialing, and forensic practice issues. Prerequisite(s): PSY 5560.

PSY 5600 - Industrial/Organizational Psychology (3)

Psychological principles and methods applied to industrial and organizational settings, with emphasis on research design, workplace procedures, and statistical techniques. Professional development activities. This course is co-listed with PSY 4600. Prerequisite(s): PSY 1100.

PSY 5650 - Advanced Methods and Analysis (3)

Advanced study and class discussion of selected areas of psychological methods and analysis. Core course content may be supplemented by special areas of emphasis to be announced each semester by the assigned instructor. Prerequisite(s): PSY 5520

PSY 5700 - Introduction to Psychological Measurement (3)

An introduction to the basic psychometric theory, concepts, and procedures; familiarization with the major instruments in the field. Course includes scheduled laboratory. This course is co-listed with PSY 4500. Prerequisite(s): PSY 2110 and junior standing.

PSY 5710 - Theories of Personality (3)

Major theories of personality, past and present. This course is co-listed with PSY 4310. Prerequisite(s): PSY 1100 and senior standing.

PSY 5720 - Psychology of Women (3)

An overview of the theories of personality as applied to women, biological determinants of feminine behavior, the dynamics of sex-role development, and the psychological implications of traditional versus modern roles for women. This course is co-listed with PSY 4320. Prerequisite(s): PSY 1100 and junior standing.

PSY 5750 - Positive Psychology (3)

The rigorous study of what is right and positive about people and institutions. Presents an introduction to the core assumptions and research findings associated with human strengths and positive emotions. Explores interventions and applications informed by this perspective. This course is co-listed with PSY 4050. Prerequisite(s): PSY 1100.

PSY 5980 - Research Project (3-6)

Examination of an approved problem in the area of Behavior Analysis and Therapy resulting in a formal research project. A prospectus is required; a committee is not required. May be repeated for a maximum of 6 semester hours. Prerequisite(s): EDSP 5610.

PSY 5990 - Thesis (3-6)

Special investigation of an approved problem in the area of psychology resulting in a formal thesis. A prospectus is required. May be repeated for a maximum of 6 semester hours. Prerequisite(s): PSY 5520.

RMI 5105 - Health Insurance & Employee Benefits (3)

Covers the major employee benefits arrangements offered and maintained by employers. Topics that will be discussed include group life insurance, group medical insurance and disability income benefits. The most popular retirement plans provisions, tax implications and suitability, for different types of business, will be examined. Those retirement plans include defined benefit plans, 401(k) plans, ESOPs, IRAs, profit sharing plans and top-heavy plans. In addition, government-mandated programs will be examined such as social security and Medicare. Prerequisite(s): Admission to the MBA program and BADM 5400.

RMI 5802 - Life and Health Insurance (3)

The Nature and importance of life and health insurance risks. Topics include the concept of human life value, types and uses of life and health insurance, and different contracts in treating these risks. This course is co-listed with RMI 4802.

RMI 5803 - Property and Casualty Insurance (3)

Insurance principles and practices of risk management applied to property and casualty liability insurance. This course is co-listed with RMI 4803.

RMI 5804 - Employee Benefits and Retirement Planning (3)

A planning perspective is developed for major employee benefit arrangements, retirement plan provisions, pension design, tax implications and suitability for different businesses. This course is co-listed with RMI 4804.

RMI 5850 - Corporate Risk Management (3)

Focuses on risk management from a corporate finance perspective. It introduces strategies that firms employ to enhance corporate value through their risk management functions. The tools and concepts are relevant for both financial and non-financial institutions. This course is co-listed with RMI 4850. Prerequisite(s): RMI 5802, RMI 5803, and RMI 5804 or concurrently.

SAFE 5001 - Ergonomics in Safety and Health (3)

An introduction into the role and application of ergonomics in a comprehensive safety program. This course is co-listed with SAFE 4000. An additional fee is associated with this course.

SAFE 5010 - Organization, Administration, and Supervision of Safety Programs (3)

Management styles and their effects upon safety and health programs. An additional fee is associated with this course.

SAFE 5015 - Emergency Planning and Operations (3)

The role and responsibilities of private and public officials in the development of emergency plans to reduce the human and material losses in time of an emergency. An additional fee is associated with this course.

SAFE 5020 - Societal Impact of Occupational Disasters (3)

This course evaluates the impact of occupational disasters on the local communities both human and the environmental and in appropriate situations the impact some events had on the State, Nation and entire planet. Specific occupational disasters to be evaluated include well known (Bhopal India, Hawks Nest Incident, BP Oil Spill, Libby Montana Asbestos Disaster) as well as less-well known disasters. An additional fee is associated with this course.

SAFE 5050 - Food Safety (3)

Comprehensive study of food safety, ion of food hazards, risk analysis and systems for food safety and risk prevention. This course is co-listed with SAFE 4950. An additional fee is associated with this course.

SAFE 5055 - Environmental, Health, and Safety Risk Assessment (3)

This course provides the fundamentals of risk assessment, with practical applications, for students and employed safety, health, and environmental professionals who recognize that they are expected to have risk assessment capabilities. This course is co-listed with SAFE 4005. An additional fee is associated with this course.

SAFE 5100 - IH Fundamentals (1)

A fundamental training in the anticipation, recognition, evaluation, and control of occupational safety and health hazards. An additional fee is associated with this course.

SAFE 5120 - Principles of Industrial Hygiene (3)

This course surveys the role and responsibilities of the industrial hygienist; the application of hygiene methods to the recognition, anticipation, evaluation, and control of health and safety hazards arising in or from the workplace Prerequisite(s): Admission to the MS Occupational Safety Management or MS Industrial Hygiene program. An additional fee is associated with this course.

SAFE 5130 - Industrial Environmental Monitoring (3)

Fundamentals of sample collection, precision and reliability of measurements, and methods for detecting and measuring trace contaminants in air and water Prerequisite(s): SAFE 5120. An additional fee is associated with this course.

SAFE 5140 - Safety and Health Laboratory (3)

A lab course using instrumentation commonly used in the evaluation of the workroom environment and equipment for safety. This course is co-listed with SAFE 4140. Prerequisite(s): SAFE 3120 and CTE 3060, each with a grade of C or better. An additional fee is associated with this course.

SAFE 5150 - Noise Measurements (2)

Physics of sound, measurement and control of noise. Laboratory required. This course is co-listed with SAFE 4150. Prerequisite(s): SAFE 5140 with a grade of C or better. An additional fee is associated with this course.

SAFE 5160 - Industrial Ventilation for Environmental Safety and Health (3)

Industrial ventilation systems designed to control health and safety hazards in the work environment with emphasis given to the design of local exhaust systems. This course is co-listed with SAFE 4160. Prerequisite(s): SAFE 5140 with a grade of C or better. An additional fee is associated with this course.

SAFE 5170 - Industrial Toxicology (3)

Chemical composition of cells, chemical processes of life, and the effects thereon of selected corrosive and toxic substances. Prerequisite(s): CHEM 1604 or equivalent. Admission to the MS Occupational Safety Management or MS Industrial Hygiene program. An additional fee is associated with this course.

SAFE 5180 - Principles of Epidemiology (3)

Introduction to the nature and scope of epidemiology. Principles and application of epidemiological methods in the investigation of environmental hazards. Prerequisite(s): Admission to the MS Occupational Safety Management or MS Industrial Hygiene program. An additional fee is associated with this course.

SAFE 5200 - EHS Essentials (1)

Introduction to essential information necessary for the protection of people, property and the environment. An additional fee is associated with this course.

SAFE 5210 - Legislation, Standards and Compliance (1)

Introduction to international, federal and state legislation related to environmental, safety and health. An additional fee is associated with this course.

SAFE 5300 - Agricultural Safety (3)

The history of and need for agricultural safety, operating guidelines for machines and chemical handling and application. A review of occupational health laws and how they relate to the agricultural workforce. This course is co-listed with SAFE 4300. An additional fee is associated with this course.

SAFE 5425 - Safety and Health Legislation and Standards (3)

A comprehensive study of legislation and standards designed to protect the worker. This course is co-listed with SAFE 4425. An additional fee is associated with this course.

SAFE 5430 - Occupational Hazard Management (3)

The examination of the management of hazards in the industrial environment. Industry standards affecting the management of hazards will be reviewed. Prerequisite(s): Admission to the MS Occupational Safety Management or MS Industrial Hygiene

program. An additional fee is associated with this course.

SAFE 5435 - Environmental Compliance (3)

Comprehensive study of federal and state environmental legislation and standards to protect the health and safety of citizens. This course is co-listed with SAFE 4435. An additional fee is associated with this course.

SAFE 5440 - Environmental Air Quality and Pollution Prevention (3)

Comprehensive study of environmental air quality and pollution prevention techniques. This course is co-listed with SAFE 4440. An additional fee is associated with this course.

SAFE 5445 - Water Quality and Waste Water Management (3)

Comprehensive study of water quality, waste water management and pollution prevention techniques. This course is co-listed with SAFE 4445. An additional fee is associated with this course.

SAFE 5450 - Sustainability and Safety (3)

Comprehensive study of sustainability, green jobs, and safety. An additional fee is associated with this course.

SAFE 5455 - Environmental Remediation (3)

Comprehensive study of environmental remediation, remedial techniques and best management practices. This course is co-listed with SAFE 4450. An additional fee is associated with this course.

SAFE 5510 - Loss Control (3)

Provides a background in loss control by investigating professional safety management. Emphasis is placed on incident recall, management's role in loss control, total job observation, total job analysis, and supervisory training. Techniques of implementing a total loss control program are explored. This course is co-listed with SAFE 4510. Prerequisite(s): SAFE 3430 with a grade of C or better. An additional fee is associated with this course.

SAFE 5515 - High Hazard Industries (3)

Evaluation of industries that have higher rates of injuries and/or fatalities on the job. Typical high hazard industries include construction, mining, and oil and gas. Identification of methods to identify, reduce or eliminate hazards in these industries. This course is co-listed with SAFE 4515. An additional fee is associated with this course.

SAFE 5530 - Risk Management and Financing (3)

The development and evaluation of various risk financing techniques and the financial risk transfer techniques in the management of an organization's hazard risks and their risk treatment. An additional fee is associated with this course.

SAFE 5800 - Managing Fire Risk (3)

An integration of decision analysis and quantitative risk assessment with a defined step approach for quantifying the performance success of fire protection systems. An additional fee is associated with this course.

SAFE 5900 - Intro to Research in Safety Sciences (2)

Introduction to research planning and design, human subjects training, and formatting a research paper. An additional fee is associated with this course.

SAFE 5915 - Industrial Safety Training (1-9)

Approved credit for comprehensive prior learning experiences that may include apprenticeships, OSHA training, formal academy training (fire, peace officer, EMS), and any other relevant safety, health and environmental training. An additional fee is associated with this course.

SAFE 5930 - Statistical Analysis for Risk Management (3)

Mathematical and statistical methods designed for the efficient collection and rational interpretation of data by individuals responsible for analysis in a variety of settings. This course is co-listed with SAFE 4940.

Prerequisite(s): SAFE 2900. An additional fee is associated with this course.

SAFE 5950 - Readings in Safety Sciences (1-6)

Readings in the student's field of interest or in related areas designed to enhance knowledge and/or skills. May be repeated for a maximum of 6 semester hours. Prerequisite(s): 9 semester hours of graduate credit. An additional fee is associated with this course.

SAFE 6900 - Research in Safety Sciences I (2)

Development of an approved research proposal. Prerequisite(s): SAFE 5900. An additional fee is associated with this course.

SAFE 6910 - Research in Safety Sciences II (2)

Completion of a research paper utilizing approved research proposal developed in SAFE 6900. Prerequisite(s): SAFE 6900 or concurrently. An additional fee is associated with this course.

SAFE 6920 - EHS Seminar (3)

A seminar designed to investigate current topics in environmental, safety and health. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Admission to the MS Occupational Safety Management or MS Industrial Hygiene program. An additional fee is associated with this course.

SAFE 6930 - Research in Safety Sciences II (3)

Continuation of Research in Safety Sciences I. Development of research methodology, completion of human subjects approval, data collection and analysis, and a final written report An additional fee is associated with this course.

SAFE 6940 - Internship in Safety Sciences (1-6)

Internships are based on student needs and educational goals. Actual work experiences in education, government, industry or business are provided. May be repeated for a maximum of 6 semester hours for each degree program. Prerequisite(s): School consent. Admission to the MS Occupational Safety Management or MS Industrial Hygiene program. An additional fee is associated with this course.

SAFE 6950 - Thesis (3)

Expansion of research conducted in Research in Safety Sciences II. Requires a committee, a defense, and submission of final thesis to the online UCM electronic database. Also requires development of a draft publication for submission to a professional journal. Prerequisite(s): SAFE 6910 with a grade of B or better. An additional fee is associated with this course.

STCH 5010 - Exploring Firsthand Science Lessons (1-2)

This seminar course aims to provide a learning environment in which students learn *science* and *science teaching* from firsthand science lessons. Students learn from invited speakers as well science articles written by science teachers. Expanding this learning opportunity, in the two credit hour version of the course, students will be working with in-service teachers in K-12 public school setting for 30 hours. Students who are aiming for secondary science certification must register for two hours. This course is co-listed with STCH 4010. This is a professional education course.

STCH 5020 - Internship in Science Teaching and Learning (1)

50-hour field experiences that provide opportunities for students to develop assessment plan, design inquiry-oriented science lessons, and co-teach the prepared science lessons with in-service teachers. This course is co-listed with STCH 4020. Prerequisite(s): Students must have a background check on file and admission to Teacher Education. Corequisite(s): STCH 4050.

STCH 5050 - Science Teaching Methods (3)

Provides the teacher education candidate with skills and resources for the teaching of science. Students will learn a variety of strategies for both laboratory and classroom instruction. This course is co-listed

with STCH 4050. Prerequisite(s): 16 hours of science content courses including at least one lab course Corequisite(s): STCH 5020 This is a professional education course.

STCH 5900 - Applied Research in Science Learning and Literacy (4)

Provides an introduction to the design of applied research studies in science learning and literary. The course helps graduate students to recognize science learning problems occur in classroom settings and propose research study in order to investigate about those problems. Should be concurrently taken by FLDX 4030.

GERO 6810 - Professional Project in Social Gerontology (3)

This course serves as the capstone for the MS Social Gerontology program for students already working in a professional setting. It allows students the opportunity to obtain practical experience in creating and managing a professional project. A prospectus is required; a committee is not required. Prerequisite(s): 18 graduate Social Gerontology credit hours including one research methods course and consent of Social Gerontology coordinator.

GERO 6850 - Internship in Gerontology (6)

The application of theories and principles in the field of aging under the direction of the Social Gerontology Program and the supervising agency. Prerequisite(s): 18 graduate credit hours including 3 credit hours of graduate research methods and Social Gerontology coordinator consent.

GERO 6890 - Thesis (6)

Research leading to the completion of a thesis. Prerequisite(s): 18 hours of graduate Social Gerontology credit must include three credit hours of research methods.

SOWK 5620 - Social Services and Policy with Older Adults (3)

Development of public policy and social service programming. Present and potential utility of individual, group and community intervention modalities as they relate to both the private troubles and public issues of aging. Students who earned undergraduate credit for SOWK 4620 may not take SOWK 5620 for graduate credit. This course is co-listed with SOWK 4620.

SOC 5055 - Social Policy and Justice (3)

This course explores the major debates in contemporary sociology on issues of social policy analysis. A critical analysis of assumptions and belief system behind policy initiatives, the functions of power in policy development and the consequences and implications of policy practices. The course will examine the diverse controversies as it relates to issues such as social security, welfare, education, health care, women's reproductive health. The course will explore the policy process from emergence to institutionalization and the passage across space and time. The importance of cross-national, comparative and institutional analysis will be emphasized. This course is co-listed with SOC 4055. Spring.

SOC 5872 - Sociology of Organizations (3)

The purpose of the course is to give primary attention to sociological approaches to organizations. The course will examine the development of sociological thought about the origins and modern analysis of organizations. An attempt would be made to recognize and consider the contribution of other social sciences and management theory in our analysis of organizations. An important question we will attempt to answer is; how does the organization of the market economy and society decisively manifest definite relationships and processes? We will explore organizations in relation to their environments, to other organizations and particularly to the states. Finally, a comparative, global focus on organizational issues will be discussed. This course is co-listed with SOC 4872. Spring.

SOC 5915 - Special Projects in Sociology (1-6)

Study, interpretation, and discussion of special topics and problems in Sociology. This course is co-listed with SOC 4815. May be repeated for a maximum of 6 semester hours.

SE 5910 - Advanced Software Engineering (3)

An in-depth study of advanced topics in the field of software engineering. Topics include software requirements workflow, object-oriented analysis and design workflow, implementation workflow, testing workflow, post-delivery maintenance, UML, software project management, emerging technology and applications. Prerequisite(s): CS 3910 or instructor consent.

SE 5930 - Software Testing and Quality Assurance (3)

Concepts and techniques for testing software and assuring its quality. Students learn the testing fundamentals, the theory behind criteria-based test design and to apply that theory in practice. Topics include coverage criteria for testing (graph coverage, logic coverage, input space partitioning, syntax-based testing); software development process (SCRUM); test team organization; maturity models; software quality factors; and testing tools. This course is co-listed with SE 4930. Prerequisite(s): CS 2300.

SE 5940 - Software Design and Architecture (3)

In depth study of concepts and principles of software design and software architecture, as well as practical approaches for employing design patterns and architectures in real systems. Students will gain experiences with examples in design pattern application and case studies in software architecture. This course is co-listed with SE 4940. Prerequisite(s): SE 3910.

SE 5950 - Secure Software Engineering (3)

In depth study of secure development lifecycle. The course reevaluates each phase of the development lifecycle from a security perspective and uses best practices from different secure SDL methodologies. Students will learn how to practice risk analysis, static/dynamic analysis, penetration testing, and secure code review in a dialectic process. This course is co-listed with SE 4950. Prerequisite(s): SE 3910.

EDSP 5000 - Topics in Special Education (1-3)

Assists graduate students in researching current issues and trends in special education. May be repeated with a different focus for a maximum of 6 semester hours. Prerequisite(s): instructor consent. This is a professional education course.

EDSP 5100 - Introduction to Graduate Study in Special Education (3)

Current and future issues in special education, tools of inquiry, role of the National Board of Professional Teaching Standards, scholarly writing, professional ethics and development. Prerequisite(s): Bachelor of Science in Special Education or equivalent

EDSP 5130 - Principles of Behavior and Learning (3)

Contemporary analysis of principles of behavior and learning. Prerequisite(s): Admission to the Behavior Analysis graduate program or consent of instructor.

EDSP 5140 - Collaborating with Professionals and Families of Students with Exceptionalities (3)

This course provides students with skills necessary to work effectively in partnership with parents, community professionals, colleagues in education including educators, other school professionals, paraprofessionals as well as administrators. Communication, conflict resolution, and collaboration skills are practiced using a variety of strategies and approaches. This course is co-listed with EDSP 4140. This is a professional education course.

EDSP 5150 - Career Development for Students with Disabilities (2)

Supportive services to students with disabilities within a career development context. This course is co-listed with EDSP 4150. Prerequisite(s): EDSP 5200. This is a professional education course.

EDSP 5160 - Conceptual and Philosophical Foundations of Behavior Analysis (3)

Discussion of the conceptual and philosophical foundations of contemporary behavior analysis. Prerequisite(s): Concurrent enrollment in EDSP 5130 or consent of instructor.

EDSP 5161 - Physical and Health Care Needs of Students with Autism and Severe Developmental Disabilities (2)

Designed to assist teachers in understanding and planning for the physical and health care needs of students with autism and severe developmental disabilities. This course is co-listed with EDSP 4161. Prerequisite(s): EDSP 5200.

EDSP 5200 - Advanced Education of the Exceptional Child (3)

Legal issues, identification and teaching of children with diverse learning needs. Differentiated instruction and evidence-based best practices will be stressed. This is a professional education course.

EDSP 5210 - Teaching Emergent and At-Risk Readers (3)

Instruction in the identification and remediation of significant reading disorders in children and youth with moderate to severe disabilities, including those with severe learning disabilities, cognitive impairments, and Autism Spectrum Disorders. A directed clinical experience in the diagnostic/prescriptive assessment process is required. This course is co-listed with EDSP 4210. Prerequisite(s): ECEL 3225 or EDFL 3230 and EDSP 2100 or EDSP 5200. This is a professional education course.

EDSP 5300 - Staff Training and Performance Management (3)

Examination of evidence-based staff training, supervision, and organizational behavior management. Prerequisite(s): EDSP 5130 or consent of instructor.

EDSP 5310 - Introduction to Students with Autism and Severe Developmental Disabilities (2)

Basic information pertaining to the characteristics, education, and care of individuals with severe forms of Autism Spectrum Disorders and individuals with severe Developmental Disabilities. Requires a directed field experience. This course is co-listed with EDSP 4310. Prerequisite(s): EDSP 5200. This is a professional education course.

EDSP 5320 - Introduction to Early Childhood Special Education (3)

Basic information pertaining to the characteristics, care, treatment, and education of young children with special needs. This course is co-listed with EDSP 4320. Prerequisite(s): EDSP 5200. This is a professional education course.

EDSP 5350 - Evaluation of Students with Disabilities (3)

Experience utilizing individual intelligence tests, informal and formal assessments and prescriptive teaching with emphasis on developing IEPs. Prerequisite(s): EDSP 5620 or instructor consent. An additional fee is associated with this course.

EDSP 5359 - Behavior Management for Classroom Teachers (3)

This course focuses on strategies for addressing common problem behaviors that can be integrated within a comprehensive, evidence-based behavior intervention program. These strategies and practices involve multiple levels of interventions, including schoolwide, classwide, small group, and individual behavioral supports. Spring.

EDSP 5360 - Advanced Behavior Management (3)

This course will build the knowledge and capacity of educators on the application of the principles of applied behavior analysis and its use in facilitating positive behavioral change in the classroom. Strategies for conducting functional behavior assessment of problem behavior and developing multidimensional intervention plans are discussed. This course is co-listed with EDSP 4360. Prerequisite(s): EDSP 5200. This is a professional education course.

EDSP 5361 - Practicum in Behavioral Management Techniques (1)

Practical experience in designing behavioral management programs and environments under

supervision. This course is co-listed with EDSP 4361. Prerequisite(s): EDSP 5360 or concurrently. This is a professional education course.

EDSP 5370 - Screening, Diagnosing and Prescribing Instruction (3)

Case finding, screening, diagnostic and assessment procedures to be utilized in prescriptive educational planning for infants and preschool-aged children. This course is co-listed with EDSP 4370.
Prerequisite(s): EDSP 5200. An additional fee is associated with this course. This is a professional education course.

EDSP 5375 - Trauma Informed Care for Schools (3)

This course will provide school professionals with strategies of how to create trauma-informed environments (schools and classrooms) that mitigate against the impacts of trauma. This course was designed for administrators, teachers and school staff to recognize trauma responses, to recognize practices that may cause traumatic stress or re-traumatize students, to accommodate and respond to traumatized students within the school setting including referrals to mental health professionals when necessary. This course will take a deep dive into the empirical research on how trauma, including adverse childhood experiences (ACE), impacts children and their experiences with formal schooling. Participants will be introduced to and explore best practices that assist students in developing positive relationships that can help them to recover and respond resiliently to future adversities. Summer.

EDSP 5380 - Readings and Contemporary Issues (1-3)

This course incorporates a broad survey of issues and trends in special education and behavior management. It is unique in that it isn't just learning information, it's understanding issues in order to practically apply the students' skill sets to potentially create a positive impact on the cause they discover they are most passionate about. The core goal of the course is to create a sense of emotion that potentially may drive a career or facilitate action for an individually determined greater good or benefit of society. Emphases will be placed on evidence-based practices, critical issues, and research relevant to the field. Summer.

EDSP 5382 - Inclusion and Intervention Strategies (3)

The purpose of this course is to assist students in developing the knowledge and skills necessary to successfully include students with disabilities in the general education classroom through effective program design, collaborative service delivery, universal design for learning, differentiated instruction and curricular accommodations and modifications. Spring.

EDSP 5383 - Observing, Coaching and Collaborating for Change (3)

In this course, students will learn the fundamentals of coaching teachers to enhance their classroom and behavior management skills, leading to improved academic and social success for students. This course will discuss the roles of coaches, with particular emphasis on developing the essential skills of relationships, communication, and observation. Summer.

EDSP 5385 - Introduction to Cross-Categorical Special Education (3)

Information about the characteristics and education of children with mild/moderate disabilities. This course is co-listed with EDSP 4385. Prerequisite(s): EDSP 5200. Taught only as an online course. This is a professional education course.

EDSP 5420 - Methods of Cross-Categorical Special Education (3)

Teaching methods, materials and curricula for educating students with mild/moderate disabilities. This course is co-listed with EDSP 4420. Prerequisite(s): EDSP 5385. Taught only as an online course. This is a professional education course.

EDSP 5440 - Curriculum and Methods for Teaching Early Childhood Special Education (3)

The teaching methods and curricula used for educating young children with special needs. This

course is co-listed with EDSP 4440. Prerequisite(s): EDSP 5320, and EDSP 5370. This is a professional education course.

EDSP 5450 - Augmentative and Alternative Communication (3)

Study and application of communication options, including manual sign language and communication devices. This course is co-listed with EDSP 4350. Prerequisite(s): EDSP 5200. This is a professional education course.

EDSP 5455 - Behavior Analysis and Therapy 1 (3)

Introduction to the use of a functional model of behavior, and design of interventions that promote the acquisition, generalization and maintenance of socially significant behavior change and related ethical issues. Prerequisite(s): EDSP 5130 or concurrent.

EDSP 5460 - Behavior Analysis and Therapy 2 (3)

Analysis of principles of behavior used in the assessment, case conceptualization and development of interventions that promote functioning across the life span. Prerequisite(s): EDSP 5455 with a grade of B or higher.

EDSP 5500 - Ethics and Behavioral Health Care (3)

This course focuses on ethical issues in the delivery of behavior analytic services in behavioral health care and medical settings. Prerequisite(s): EDSP 5130.

EDSP 5510 - Fundamentals of Autism Spectrum Disorders (3)

The purpose of this course is to provide an understanding of Autism Spectrum Disorders (ASD) and their effect on life and learning: as well as a comprehensive overview of the history, current thinking, issues and practices. This course will examine autism and Asperger Syndrome, educational criteria, identification and assessment, personal perspectives, and teaching strategies. Broad areas to be covered in this course include: the breadth and variability of ASD characteristics; how multiple disciplines interact around ASD issues; how ASD affects learning, socialization, perception, communication, sensory processing and thinking; life span issues (from early childhood to adulthood); and, the perspectives of individuals with ASD, as well as their family members, identification of children with exceptionalities, methods and techniques for teaching them, as well as possible sources of referral which may be of assistance to teachers and parents of these children.

EDSP 5511 - Behavioral Interventions for Students with Autism Spectrum Disorders (3)

Students explore the growing body of research findings showing that students with autism spectrum disorders can derive significant and durable benefits from interventions based on the principals of applied behavior analysis. Strategies for conducting functional analysis of problem behavior and developing multidimensional intervention plans are reviewed. Prerequisite(s): EDSP 5510 or concurrently.

EDSP 5512 - Communication and Social Skills in Students with Autism Spectrum Disorders (3)

This course examines the assessment and instructional strategies that have been shown to be effective in promoting the development of cognitive, language, and social skills for students with autism spectrum disorders. Participants examine the instructional adaptations needed to promote the development of cognitive, communicative, and social skills in students with ASD, and review relevant empirical literature. Prerequisite(s): EDSP 5510 or concurrently.

EDSP 5513 - Early Intervention in Children with Autism Spectrum Disorders (3)

This course focuses on children with autism spectrum disorder (ASD) birth to age six. Topics addressed will include basic characteristics of children with ASD birth to age six, the developmental implications for these children and their families, and research supported early interventions utilizing a family centered approach with an emphasis on natural learning opportunities. Prerequisite(s): EDSP 5510 or concurrently.

EDSP 5514 - Classroom Strategies for Students with Autism Spectrum Disorders (3)

Students examine the design and implementation of effective classroom programs, such as those based on the TEACCH model, for students with autism spectrum disorders who differ in age and level of functioning. The course topics include classroom structure and organization, group instruction strategies, educational assessment and IEP development, record keeping curriculum, instructional activities and materials, parent involvement, and staffing and support services. Prerequisite(s): EDSP 5510 or concurrently.

EDSP 5515 - Assessment and Planning for Students with Autism Spectrum Disorders (3)

Students become competent in the identification and assessment of individuals with autism spectrum disorders. Research-based best practices in assessment will be discussed. Students will effectively select, utilize, and report results on appropriate tools for evaluation of autism spectrum disorders. Prerequisite(s): EDSP 5510 or concurrently.

EDSP 5516 - Issues and Trends in Autism Spectrum Disorders (3)

This course incorporates a broad survey of issues and trends in the field of Autism Spectrum Disorders. Emphasis will be placed on advances in evidence-based practices, policy, critical issues and research relevant to the field. Prerequisite(s): EDSP 5510.

EDSP 5520 - Behavioral Medicine (3)

Application of principles of behavior used in the prevention, treatment, and rehabilitation of biomedical disorders. Prerequisite(s): EDSP 5130, EDSP 5455, EDSP 5610, EDSP 5570.

EDSP 5550 - Behavior Therapy (3)

Analysis of complex behavior disorders and the design of function-based interventions, including verbally mediated procedures, with diverse populations and examination of ethical issues related to practice. Prerequisite(s): EDSP 5130, EDSP 5455, EDSP 5460.

EDSP 5570 - Behavioral Assessment (3)

Conceptual and philosophical foundations of behavioral assessment, reliability and validity, targeting, observational recording procedures, and self-report measures are presented. Multibehavior-multimethod procedures are addressed. Prerequisite(s): EDSP 5130 or concurrent.

EDSP 5610 - Research Methods in Applied Settings (3)

Examination of research and evaluation methodology used to single systems, including individuals, families, organizations, or other social systems. Prerequisite(s): Concurrent with EDSP 5130.

EDSP 5620 - Evaluation of Abilities and Achievement (3)

Instruction in interpretation of individualized intelligence tests, formal and informal diagnostic procedures, and in prescriptive instruction. A directed clinical experience in the diagnostic assessment process for Individual Education Programs is required. This course is co-listed with EDSP 4620. Prerequisite(s): EDSP 5200. An additional fee is associated with this course. This is a professional education course.

EDSP 5690 - IEP and the Law (3)

Administrative procedures and policies needed in establishing a program of special education. Special emphasis is given to compliance with state and federal law. A directed clinical experience in the theory, process, and practice of IEP writing is included. This course is co-listed with EDSP 4700. Prerequisite(s): EDSP 5620. This is a professional education course.

EDSP 5700 - Advanced Organization and Administration of Special Education (3)

For administrators and special educators to experience problem solving simulations regarding special education administration. Prerequisite(s): EDSP 5690. This is a professional education course.

EDSP 5970 - Practicum in Psychology (3)

Supervised experience in behavior analysis and therapy. May be repeated for a maximum of 6 semester hours. Prerequisite(s): EDSP 5460 with a grade of B or higher or consent of instructor.

EDSP 6300 - Advanced Behavior Management Practicum (3)

One of two required courses in a year-long practicum for the Behavior Management cohort, which candidates complete as a capstone for the program. Summer.

EDSP 6900 - Readings in Special Education (1-5)

Individual study and research regarding areas of particular interest in special education. May be repeated for a maximum of 5 semester hours. Prerequisite(s): Consent of adviser.

EDSP 6980 - Internship in Special Education (3)

Experience in a school or program where students with disabilities are served. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Consent of adviser. This is a professional education course.

EDSP 6982 - Internship in Special Education Administration (2)

One of two required courses in a year-long practicum for initial certification as Special Education Director which candidates complete as a capstone for the program. Prerequisite(s): Advisor or school consent.

SM 5210 - Statistics in Sports Management (3)

Assist students in studying the complimentary relationship between statistics and research design. The course covers descriptive statistics and hypothesis testing using both parametric and non-parametric statistical testing.

SM 5720 - Advanced Sport Facility Management (3)

Prepares the student to engage in planning, constructing, promoting, and managing a variety of sport facilities, including fitness centers, race tracks, major stadium, etc.

SM 5740 - Sport Law and Risk Management (3)

This course provides students with a better understanding of the legal aspects and risk management in sports, fitness administration, and physical education. This course is co-listed with SM 4740.

SM 5750 - Foundations in Sport Management (3)

Administrative and management functions of the sports administrator.

SM 5760 - Advanced Sport Marketing (3)

Preparation in the marketing of sport services and events of sport teams and programs as well as an in-depth knowledge and understanding of the current issues, theories, and research in sport marketing. Prerequisite(s): A management or marketing class from a business school is recommended.

SM 5770 - Sport Finance (3)

A review of financial aspects in sport organizations. The student will become familiar with financial statements and be able to evaluate a sport organization's financial performance. This course is co-listed with SM 4770.

SM 5780 - Organizational Leadership in Athletics and Sport (3)

An advanced study of organizational leadership theories, models, and concepts as they apply to athletic and sports organizations.

SM 5800 - Sport Sponsorship and Sales (3)

Introduce students to sport sponsorship management with a focus on theoretically understanding concepts of sponsorship and practically developing sport sponsorship plans. Prerequisite(s): A management or

marketing class from a business school is recommended.

SM 5810 - Advanced Sport Event Management (3)

Provides a combination of the theoretical foundations and practical principles of event management. In particular, focus is on the operational planning component of event management and the role of the event manager as the planner and facilitator.

SM 5820 - Sport Public Relations (3)

Independent learning class on various aspects of sport public relations. This course is designed to develop an understanding of the concepts and principles of public relations in sport organizations as well as practical communication skills to foster positive relationships with key publics This course is co-listed with SM 4820.

SM 5860 - Advanced Sport and Media (3)

Examines sport's societal influence, especially focusing on media issues. It approaches sport from a socio-cultural/psychological perspectives as well as from a contemporary position. It focuses on the converging worlds of print journalism, electronic media, advertising, and emerging technologies as expressed in the new commercial reality of sport.

SM 5880 - Sport Consumer Behavior (3)

A theoretical introduction to the field of sport consumer behavior. The student will be able to understand social psychological theory underlying consumer decisions. This course is co-listed with SM 4880.

SM 5900 - Introduction to Research in Sport Management (3)

Overview and planning for graduate studies with an introduction and study of the major methods, tools, and statistical techniques employed in research in Sport Management, including the development of a research prospectus.

SM 6190 - Trends & Issues in Sport Management (3)

Directed reading and special investigation of selected problems. Identification, analysis, and discussion of on-the-job problems.

SM 6900 - Readings in Sport Management (1-5)

Guided study in the literature of the Sport Management field. May be repeated for a maximum of 6 semester hours. Prerequisite(s): SM 5900.

SM 6980 - Internship (2-6)

Practical experience in Sport Management at an approved site. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Minimum of 21 hours of completed coursework in the program.

SM 6990 - Thesis (6)

Special investigation of an approved problem in Sport Management resulting in a formal thesis. A prospectus is required. Prerequisite(s): SM 5210 or SM 5900.

TECH 5000 - Special Problems in Technology (1-6)

Meets individual student needs for additional research and/or laboratory experiences in the development of technical knowledge and skills in the areas of manufacturing and construction. May be repeated for a maximum of 6 semester hours. An additional fee is associated with this course.

TECH 5010 - Applied Research for Technology (3)

Research investigation of a technical problem. The course will culminate in a research report. May be repeated for a maximum of 6 semester hours per degree program. An additional fee is associated with this course.

TECH 5020 - International Technology Management (3)

Develop an understanding of international technology management for graduate students in the international environment. This course is co-listed

with TECH 6020. An additional fee is associated with this course.

TECH 5022 - Internship in Applied Sciences (1-6)

Provides experience for students in cooperating industries. Students rotate assignment. Written reports are required. May be repeated for a maximum of 6 semester hours. Prerequisite(s): Graduate adviser consent and Technology Internship coordinator consent; graduate GPA 3.00 or above; minimum of one semester graduate work completed. An additional fee is associated with this course.

TECH 5110 - Current Issues in Industry (3)

Identify, discuss, and research current issues, trends, and technological changes affecting industry as related to corporate planning, decision making, and managing for the future. This course is co-listed with TECH 4010. An additional fee is associated with this course.

TECH 5260 - Systems Analysis and Management Information Systems (3)

Design, development, and management of information systems relating to business intelligence and analytics of production and operation in organizations. An additional fee is associated with this course.

TECH 5290 - Thesis (3)

A special investigation of selected problems in Industrial Management and Technology which culminates in the completion of a thesis. Must be repeated for a total of 6 semester hours. An additional fee is associated with this course.

TECH 6020 - International Technology Management (3)

Develop an understanding of international technology management for graduate students in the international environment. This course is co-listed with TECH 5020. Prerequisite(s): Admission to PhD program. An additional fee is associated with this course.

TMD 6015 - Legal Aspects of Technology and Innovation (3)

This course is a study of legal aspects of managing technology, innovation, and technological policy analysis for United States and international organizations. Prerequisite(s): Permission of the Program Coordinator.

TMD 6315 - Advanced Legal Aspects of Construction (3)

An advanced course in legal aspects of the construction process. Prerequisite(s): INDM 5015.

TMD 6525 - Manufacturing Economy (3)

Managerial related economic factors pertaining to a manufacturing enterprise and the influence of these factors on manufacturing in a global society. Prerequisite(s): ITEC 6800 and admission in the Ph.D. in Technology Management program.

TMD 7320 - Ethics and Professional Issues of the Construction Process (3)

Develops the ability to think critically and systematically about the issues of relevance to any practicing professional in construction. Prerequisite(s): INDM 5015.

TMD 7550 - Current Issues in Manufacturing (3)

Issues and trends in manufacturing and their implications and impact on manufacturing in a global society. Prerequisite(s): ITEC 6800 and admission in the Ph.D. in Technology Management program.

TMD 8590 - Internship (3)

Practicum designed to provide direct, supervised experiences for doctoral students, usually in the areas of the technical specialization. The experiences are tailored to provide an opportunity to test and experiment with regard to industry, research organizations, government agencies, and other appropriate experiential ventures associated with technology utilization, transfer, and innovation. The area in which the internship is taken will be designated on the student's transcript, i.e., Internship:

Quality Systems. May be repeated for up to 6 semester hours. Prerequisite(s): Permission of the Program Coordinator.

TMD 8920 - Field Research Projects (3)

Provides opportunity for doctoral students to test a theory or hypothesis in technology or management. Field research projects will be designed, conducted, and results evaluated. May be repeated for up to 6 semester hours. Prerequisite(s): Permission of the Program Coordinator.

TMD 8990 - Dissertation (1-18)

A requirement for all doctoral students. Offered by arrangement with the chairperson of the student's dissertation committee. Credit registration must have 9 hours of the 18 hours from Indiana State University and 9 from University of Central Missouri. Course may be repeated. Prerequisite(s): Admission to candidacy in the PhD in Technology Management program.

THEA 5910 - Thesis (1-5)

Special Investigation of an approved problem in theatre resulting in a formal thesis. May be repeated for a maximum of 5 semester hours. Prerequisite(s): 15 hours of graduate credit. An additional fee is associated with this course.

THEA 5920 - Theatre Architecture (2)

Analysis of and practice in modern theatre architectural design. An additional fee is associated with this course.