

UNDERGRADUATE CATALOG 2014





LEARNING TO A GREATER DEGREE

Warrensburg, MO 64093
877-SAY-UCMO (877-729-8266)
University Operator
660-543-4111
ucmo.edu

2014 UNDERGRADUATE CATALOG

WELCOME

The University of Central Missouri is committed to your success more than ever. With the Learning to a Greater Degree Contract, UCM is ensuring the entire fabric of the university is designed to help you succeed.

Here's what else you can expect from UCM:

- Engaged learning to prepare you for the future with practical, hands-on experience in your field.
• A worldly perspective that readies you for a world that continues to become more global by offering study abroad opportunities and exposure to students from more than 50 countries.
• A culture of service where you are able to dedicate volunteer hours to many nonprofit agencies, impacting your community.
• Future-focused academics where new technologies keep you abreast of the latest changes in your field.
• Enrollment in the right 15 credit hours per semester to ensure you graduate on time.
• Financial incentives to reward you for staying on track.
• Expanded advising and e-advising access.
• A portfolio that showcases your on-campus involvement and successes.

Exciting plans are on the horizon for UCM students. We are committed to providing you a degree with greater value and real-world application. Think of the Learning to a Greater Degree Contract as a promise from UCM.

We are certain that your education at UCM will serve you long after you graduate. Thank you for deciding to choose RED!

Joining you in service,

Handwritten signature of Chuck Ambrose

Chuck Ambrose
President, University of Central Missouri

BOARD OF GOVERNORS

Table listing Board of Governors members: MARVIN E. WRIGHT (Board President, Columbia), GUS WETZEL II (Board Vice President, Clinton), MARY DANDURAND (Board Secretary, Warrensburg), vacant (Student Governor), WELDON BRADY (Warrensburg), JOHN COLLIER (Weston), WALTER HICKLIN (Gravois Mills), MARY LONG (Kansas City)

Announcements in this catalog are subject to change and thus do not constitute an agreement or contract.

Every effort is made to provide accurate and up-to-date information, however, the university reserves the right to change without notice statements concerning rules, policies, fees, curricula, courses or other matters when necessary.

This publication was prepared by the Registrar's Office, Ward Edwards Building 1000, with help from the Office of Undergraduate Studies, Administration Building 203, and University Relations, Administration Building 302, University of Central Missouri, Warrensburg, MO 64093. Publication date, April 2014.

The University of Central Missouri is accredited by the Higher Learning Commission (HLC), a member of the North Central Association. For information about HLC Accreditation, contact The Higher Learning Commission, 30 North La Salle Street, Suite 2400, Chicago, IL 60602-2504, telephone 800-621-7440, ncahigherlearningcommission.org.

Mission Statement

The University of Central Missouri experience transforms students into lifelong learners, dedicated to service, with the knowledge, skills and confidence to succeed and lead in the region, state, nation and world. UCM offers a comprehensive array of bachelor's programs and selected master's and doctoral programs building upon historical strengths and statewide mission.

Approved by the UCM Board of Governors, October 2008



ii **Table of Contents**

Welcome	i	Application for Exception Procedure	19	State Law Requirement, Section 170.011	27
Academic Calendar	iv	Vehicles on Campus	19	Application for Graduation	27
SECTION I		Tobacco	19	Social Opportunities	
General Information, Standards and Regulations, Services and Facilities		Alcohol and Other Substances	19	Student Activities	28
Your Catalog	1	Academic Policies		Student Organizations	28
The University	1	Credit Hours	20	Fraternity and Sorority Life	28
The UCM Community Creed	1	Academic Load	20	Intercollegiate Athletics and Organized Sports	28
Accreditations	2	Summer Course Load Policy	20	Recreation Facilities	
Admissions		Class Attendance	20	Multipurpose Building	29
How to Apply	4	Classification of Students	21	Pertle Springs	29
Visiting High School Students	5	Field Trips	21	The Union Bowling Center	29
Visiting College Students	6	Final Examinations	21	Recreational Programs	29
Senior Citizens	6	Final Grades and Transcripts	21	Shooting Range	29
International Student Admissions	7	Central Degree Audit (DegreeWorks)	21	Student Recreation and Wellness Center	29
Planned Placement	9	Degree Revocation Policy	21	Other Facilities	29
Types of Credits	10	Unauthorized Persons in Classrooms	21	Services and Facilities	
Housing	12	Academic Standards		Academic Advisement	30
Nondiscrimination/Equal Opportunity Statement	13	Grading System	22	Academic Enrichment	30
Institutional and Financial Information	13	Grade Point Averages	22	Accessibility Services (ADA/504)	31
Costs		Computation of Grade Point Average	22	Airport	31
Fees and Expenses	14	Academic Standing	22	Alumni Association	31
Supplemental Course Fees	14	Dean’s List	23	Assessment	31
Determination of MO Residency for Fee Purposes	14	Graduation with Honors	23	Business Innovation Institute	31
Financial Responsibility	14	Grade Appeals	23	Career Development Services	32
Refund Policy	14	Grade Requirements for Program Admission and Graduation	23	The Center for Teaching and Learning	32
Financial Assistance	15	Unfinished Work	23	Central Regional Professional Development Center	32
Types of Financial Aid	15	Enrollment Regulations		Chapel	32
How to Apply	15	Changes in Class Schedules	24	Child Care Centers	33
Financial Need	16	Withdrawal from the University	24	Counseling Center	33
Scholarships	16	Students Called to Military Service	24	Dining Services	33
Other Assistance	16	Holds	25	Distance Learning	33
Midwest Student Exchange Program	16	Enrollment Validation Policy	25	Elliott Union	33
Non-resident Fee Credit	16	Enrollment Verifications	25	English Language Center	34
Choose Red Grant	16	Repeat Enrollment in Courses	25	Extended Studies	34
Satisfactory Academic Progress	16	The Pass/Fail Program	25	Institute for Public Safety	34
Short-term Loans	17	Auditing Courses	26	Institute for Rural Emergency Management	34
Veteran Benefits	17	Course Numbers	26	Institute of Justice and International Studies	34
Standards and Regulations		Course Prerequisites	26	The International Center	34
Student Rights and Responsibilities		Undergraduate Enrollment in Graduate Courses	26	International Student and Scholar Services	35
Philosophy of Academic Standards	18	Degree Requirements		KMOS-TV	35
Student Responsibility	18	Date of Catalog for Checking Degree Requirements	27	Library Services	35
Family Educational Rights and Privacy Act 18		General Education Requirements	27	Meeting and Conference Services	35
Amendment of Education Records	19	Upper-level Credit	27	Mentoring, Advocacy and Peer Support	35
		Hours in Residence	27	Military and Veteran Services	36
				Missouri Safety Center	36

Non-Traditional Student Services	36	Individualized Majors and Minors	54	The College of Health, Science,	
Office of Technology	36	International Study	55	and Technology	119
Public Safety	37	Degree/Major Programs	58	Department of Biology and Agriculture	119
Publications	37	Minors, Certificates, and Other Academic Programs	59	Department of Mathematics	
Registrar and Student Records	37	Course Prefixes	60	and Computer Science	124
Research	37	Four-Year Academic Guides	60	Department of Nursing	129
School of Graduate Studies	38	The College of Arts, Humanities,		Department of Nutrition and Kinesiology	132
Student Experience and Engagement	38	and Social Sciences	61	Department of Psychological Science	136
Student Financial Services	38	Religious Studies	61	School of Environmental, Physical,	
Student Volunteer Programs	38	Department of Communication and Sociology	61	and Applied Sciences	139
Testing Services	38	Women's and Gender Studies	67	School of Technology	144
UCM Foundation	38	Department of English and Philosophy	67		
UCM Summit Center	39	Department of Government, International Studies,		SECTION III	
Union Station: Crossroads to Technology	39	and Languages	70	Course Descriptions	
University of Central Missouri Prussing Farm	39	Department of History and Anthropology	77	How to Read Course Descriptions	151
University Health Center	39	Department of Visual and Performing Arts		A-Z Course Listings	
University Store	39	Department of Art and Design	78	A	154
Welch-Schmidt Center for Communication Disorders	40	Department of Music	81	B	163
		Department of Theatre and Dance	85	C	166
SECTION II		The College of Education	88	D	178
Degree Program Requirements		Teacher Education	88	E	179
Degrees	41	Department of Career and Technology Education	91	F	189
General Requirements for All Baccalaureate Degrees	41	Department of Educational Foundations		G	193
Specific Requirements for the Various Baccalaureates	41	and Literacy	93	H	197
Double Degrees	42	Department of Educational Leadership and		I	199
Majors	42	Human Development	94	L	200
Double Majors	42	Department of Elementary and Early		M	200
Minors	42	Childhood Education	96	N	208
Undergraduate Certificates	43	The Harmon College of Business		P	210
Course Overlap	43	and Professional Studies	100	R	217
General Education Program		B.S.B.A. Admission Requirements	100	S	217
General Education Outcomes and Competencies	44	School of Business Administration		T	221
Policies Concerning the General Education Program	44	Department of Economics, Finance,		W	222
General Education Assessment Policy	46	and Marketing	101	Index	223
Transfer Students and General		Department of Management	104		
Education Assessment	46	School of Accountancy and Computer			
Teacher Education Majors and		Information Systems	106		
General Education Assessment	46	School of Professional Studies			
Admission to Degree Programs General		Department of Aviation	109		
Education Assessment	46	Department of Communication Disorders			
General Education Assessment Test Registration	46	and Social Work	112		
The General Education Program Requirements	47	Department of Criminal Justice	115		
The Honors College Program	51	Department of Military Science			
Additional Academic Opportunities		and Leadership	116		
Open Option Program	53	Missouri Safety Center	117		
Pre-Professional Education	53				
Pre-Law	54				

FALL SEMESTER 2014, AUGUST – DECEMBER

- Aug. 15.....Friday, university apartments open, 8 a.m.
- Aug. 15/18 .Monday, faculty planning.
- Aug. 17.....Sunday, residence halls open, 8 a.m.
- Aug. 19.....Tuesday, 8 a.m., classes begin.
- Aug. 26.....Tuesday, last day for fall semester enrollment and changing classes. Waitlist for fall semester ends.
- Aug. 26.....Tuesday, last day to change a full semester and first-half semester class to/from audit grade mode.
- Sept. 1Monday, Labor Day Holiday, CLASSES DISMISSED and UNIVERSITY OFFICES CLOSED.
- Sept. 5Friday, last day to change a first-half semester class to/from pass/fail grade mode.
- Sept. 12Friday, Spring 2015 course schedule available to view in MyCentral.
- Sept. 19-21 .Friday-Saturday-Sunday, Family Weekend.
- Sept. 23Tuesday, last day to change a full semester class to/from pass/fail grade mode.
- Sept. 23Tuesday, last day to drop a first-half semester class.*
- Sept. 30Tuesday, mid-semester grades available at noon in MyCentral.
- Oct. 10Friday, final examinations for first-half semester classes and end of first-half semester.
- Oct. 13Monday, second-half semester classes begin.
- Oct. 20Monday, last day to add/change a second-half semester class. Waitlist for second-half semester classes ends.
- Oct. 20Monday, last day to change a second-half semester class to/from audit grade mode.
- Oct. 20Monday, enrollment for spring semester begins. Students can find their individual enrollment access date at www.ucmo.edu/registrar/dates/enroll.cfm.
- Oct. 25Saturday, Homecoming.
- Oct. 28Tuesday, last day to drop a full semester class.*
- Oct. 29Friday, last day to change a second-half semester class to/from pass/fail grade mode.
- Nov. 3.....Monday, last day to apply for Fall undergraduate graduation to have name included in the printed commencement program.
- Nov. 3.....Monday, cap and gown distribution for Fall graduation begins at the University Store through commencement day.
- Nov. 14.....Friday, last day to apply for Spring and Summer undergraduate graduation to be considered for the "15 to Finish" scholarship (transfer students only)
- Nov. 15.....Saturday, last day to petition for reinstatement for spring semester (for suspended and dismissed students)
- Nov. 17.....Monday, last day to drop a second-half semester class.*
- Nov. 21.....Friday, residence halls close, 6 p.m.
- Nov. 24-26Monday through Wednesday, fall break, CLASSES DISMISSED.
- Nov. 27-28Thursday and Friday, Thanksgiving holiday, CLASSES DISMISSED AND UNIVERSITY OFFICES CLOSED.
- Nov. 30.....Sunday, residence halls open, noon.
- Dec. 5.....Friday, last day of fall semester classes.
- Dec. 8-12.....Monday through Friday, fall semester final examinations (includes second-half semester classes).
- Dec. 12.....Friday, residence halls close, 6 p.m.
- Dec. 12.....Friday, Graduate School Commencement.
- Dec. 13.....Saturday, Undergraduate Commencement.
- Dec. 18.....Thursday, final semester grades available in MyCentral.
- Dec. 19.....Friday, Summer 2015 course schedule available to view in MyCentral.
- Dec. 24-Jan. 1 Winter holidays, UNIVERSITY OFFICES CLOSED.

SPRING SEMESTER 2015, JANUARY – MAY

- Jan. 1.....2014-2015 FAFSA available at fafsa.gov
- Jan. 2.....Thursday, offices open.
- Jan. 11.....Sunday, residence halls open, noon.
- Jan. 12.....Monday, 8 a.m., classes begin.
- Jan. 19.....Monday, Martin Luther King Jr. holiday, CLASSES DISMISSED and UNIVERSITY OFFICES CLOSED.
- Jan. 20.....Tuesday, last day for spring semester enrollment and changing classes. Waitlist for spring semester ends.
- Jan. 20.....Tuesday, last day to change a full semester and first-half semester class to/from audit grade mode.
- Jan. 23.....Friday, Fall 2015 course schedule available to view in MyCentral.
- Jan. 29.....Thursday, last day to change a first-half semester class to/from pass/fail grade mode.
- Feb. 17Tuesday, last day to change a full semester class to/from pass/fail grade mode.
- Feb. 17Tuesday, last day to drop a first-half semester class.*
- Feb. 24Tuesday, mid-semester grades available at noon in MyCentral.
- March 4Wednesday, final examinations for first-half semester classes and end of first-half semester.
- March 5Thursday, second-half semester classes begin.
- March 12Thursday, last day to add/change a second-half semester class. Waitlist for second-half semester classes ends.
- March 12Thursday, last day to change a second-half semester class to/from audit grade mode.
- March 13Friday, residence halls close, 6 p.m.
- March 16-20.. Monday through Friday, Spring Break, CLASSES DISMISSED.

March 22 Sunday, residence halls open, noon.
 March 23 Monday, enrollment for summer and fall semesters begins. Students can find their individual enrollment access date at www.ucmo.edu/registrar/dates/enroll.cfm.
 March 30 Monday, last day to change a second-half semester class to/from pass/fail grade mode.
 March 30 Monday, last day to drop a full semester class.*
 March 30 Monday, last day to apply for Spring and Summer undergraduate graduation to have name included in the printed commencement program.
 April 1 Wednesday, priority date for students to have submitted the 2014-2015 Federal Financial Aid Application (FAFSA) to the national FAFSA processing agency.
 April 6 Monday, cap and gown distribution for spring and summer graduation begins at the University Store through commencement day.
 April 15 Wednesday, last day to apply for Fall undergraduate graduation to be considered for the "15 to Finish" scholarship (transfer students only)
 April 15 Wednesday, last day to petition for reinstatement for summer semester (for suspended and dismissed students)
 April 16 Thursday, last day to drop a second-half semester class.*
 May 1 Friday, last day of spring semester classes.
 May 4-8 Monday through Friday, spring semester final examinations (includes second-half semester classes).
 May 8 Friday, housing facilities close, 6 p.m.
 May 8 Friday, Graduate School Commencement.
 May 9 Saturday, Undergraduate Commencement.
 May 14 Thursday, final semester grades available in MyCentral.

July 9 Thursday, 2nd 6-week session ends and final exams.
 July 23 Thursday, 8-week session ends and final exams.
 Aug. 6 Thursday, 3rd 6-week and 12-week sessions end and final exams.
 Aug. 7 Friday, housing facilities close, 6 p.m.
 Aug. 13 Thursday, final semester grades available in MyCentral.

*NOTE: The refund (100%, 50%, and 25%) and last day to drop dates may vary for individual classes. Students can find the deadlines for their particular courses online in MyCentral. Go to the "Student Services" tab and choose "Check Refund and Withdrawal Dates". More information can be found in the "Standards and Regulations" section of this catalog.

SUMMER SESSIONS 2015, MAY – AUGUST

May 17 Sunday, housing facilities open at 1 p.m. for 1st session students.
 May 18 Monday, 1st 6- and 12-week sessions begin.
 May 25 Monday, Memorial Day holiday, CLASSES DISMISSED and UNIVERSITY OFFICES CLOSED.
 May 31 Sunday, housing facilities open at 1 p.m. for 2nd session students.
 June 1 Monday, 2nd 6-, and 8-week sessions begin.
 June 25 Thursday, 1st 6-week sessions end and final exams.
 June 28 Sunday, housing facilities open at 1 p.m. for 3rd session students.
 July 15 Wednesday, last day to petition for reinstatement for fall semester (for suspended and dismissed students)
 June 29 Monday, 3rd 6-week session begins.
 July 3 Friday, Independence Day Holiday, CLASSES DISMISSED and UNIVERSITY OFFICES CLOSED.



The Learning to a Greater Degree Contract

represents UCM's strengthened commitment to student success. The contract is not a requirement, it's an invitation.

We invite you to be part of this exciting opportunity by:

- Enrolling in the right 15 credit hours each semester.
- Attending class regularly.
- Communicating with your professors.
- Checking in with your academic advisor every semester.
- Living on campus for two years (required for incoming students).

Our promise to you:

- A campus with 24/7 activity.
- Enhanced academic advising to help you finish on time.
- A commitment to keeping costs low.
- An involvement portfolio to showcase your successes.
- Expanded living, dining and learning spaces.



Your journey begins at UCM. It ends with a diploma and countless opportunities for a brighter future. We are here to make sure your journey is exciting, fun, fulfilling and ultimately leads you to success.

Together, it's time to experience learning to a greater degree.

ucmo.edu/contract



LEARNING TO A GREATER DEGREE

SECTION I

General Information, Standards and Regulations, Services and Facilities

Your Catalog

Your University of Central Missouri catalog contains a wealth of information for students and faculty members. Examine it carefully. Organized for your convenience, it has three main sections:

- I. General Information, Standards and Regulations, Services and Facilities
- II. Degree Program Requirements
- III. Course Descriptions

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 requirements in it for an eight-year period. (See Section I, Standards and Regulations, *Date of Catalog for Checking Degree Requirements.*)

Since the policies and programs of the university are constantly changing, no catalog can be completely up-to-date, even when it is published. Students, therefore, should review their programs periodically with an academic advisor and with departmental advisors to allow for necessary changes.

Individual departments and degree programs may have policies and requirements that are more stringent than the university policies described in Section I of this catalog.

The University

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. It 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 its airport and other special facilities, the university occupies more than 1,000 acres. It offers over 150 graduate and undergraduate programs for nearly 12,000 students. Its 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.

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.

The Maastricht Friendship Tower in Alumni Park symbolizes international understanding and friendship.



Accreditations



As set forth in Missouri Revised Statutes 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), a member of the North Central Association. For information about HLC Accreditation, contact The Higher Learning Commission, 30 North La Salle Street, Suite 2400, Chicago, IL 60602-2504, telephone 800-621-7440, ncahigherlearningcommission.org.

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

- Chemistry, Physics, Biology, and Earth Science education baccalaureates, National Science Teachers Association
- Commission on English Language Program Accreditation (CEA)
- Construction Management baccalaureate, American Council for Construction Education
- Dietetics baccalaureate, Accreditation Council for Education in Nutrition and Dietetics (ACEND) the accrediting agency for the Academy of Nutrition and Dietetics
- Elementary Education baccalaureate, Association for Childhood Education International
- Elementary Education baccalaureate, Early Childhood Education, National Association for the Education of Young Children
- Fashion: Textiles and Clothing in Business baccalaureate, American Association of Family and Consumer Sciences
- Mathematics education baccalaureate, National Council of Teachers of Mathematics
- Middle School/Junior High School baccalaureate, National Middle School Association
- Music baccalaureates, National Association of Schools of Music
- Nursing baccalaureate programs, Commission on Collegiate Nursing Education
- Occupational Safety and Health baccalaureate, Applied Science Accreditation Commission of ABET
- Physical Education baccalaureate programs, National Association for Sport and Physical Education
- Social Studies baccalaureate in education, National Council for the Social Studies
- Social Work baccalaureate, Council on Social Work Education
- Teacher Education baccalaureate programs, National Council for Accreditation of Teacher Education and the Missouri Department of Elementary and Secondary Education
- Technology and Occupational Education baccalaureate, Council for Technical Teacher Education
- Theatre baccalaureate programs, National Association of Schools of Theatre
- Art baccalaureates, National Association of Schools of Art and Design
- Athletic Training baccalaureates, Commission on Accreditation of Athletic Training Education Programs
- Automotive Technology Management, Design and Drafting Technology, Construction Management, Electronics Technology, Graphic Technologies and baccalaureates, Association of Technology, Management, and Applied Engineering
- Aviation Management and Professional Pilot baccalaureates, Aviation Accreditation Board International (AABI)
- Baccalaureate of Science in Education, Council for Exceptional Children
- Business baccalaureates, The Association to Advance Collegiate Schools of Business (AACSB) - International
- Career and Technology Teacher Education baccalaureate, American Association of Family and Consumer Sciences
- Career and Technology Teacher Education baccalaureate (Engineering and Technology Teacher Education area), International Technology and Engineering Educators Association (ITEEA)

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

- Business graduate programs, The Association to Advance Collegiate Schools of Business (AACSB) - International
- Educational Leadership; Principal Graduate programs, Educational Leadership Constituent Council
- Educational Technology graduate program, Association for Educational Communications and Technology
- Commission on English Language Program Accreditation (CEA)
- Industrial Hygiene graduate program, Applied Science Accreditation Commission of ABET
- Industrial Management graduate program, Association of Technology, Management, and Applied Engineering
- Library and Information Services graduate program, American Library Association
- Literacy graduate program, International Reading Association
- Music graduate programs, National Association of Schools of Music
- Nursing graduate programs, Commission on Collegiate Nursing Education
- Physical Education graduate programs, National Association for Sport and Physical Education
- Speech-Language Pathology master's program, American Speech-Language-Hearing Association
- Teacher Education graduate programs, National Council for Accreditation of Teacher Education and the Missouri Department of Elementary and Secondary Education
- Technology graduate program, Association of Technology, Management, and Applied Engineering
- Theatre graduate programs, National Association of Schools of Theatre

The university has institutional membership in:

- American Association of State Colleges and Universities
- American Association of University Women
- American College & University President's Climate Commitment
- American Council on Education
- Association of American Colleges and Universities
- Association for Gerontology in Higher Education
- Association of Governing Boards of Universities and Colleges
- Council for Opportunity in Education
- Council on Public Higher Education for Missouri
- Council on Social Work Education
- Council on Undergraduate Research
- Institute of International Education
- International Association for Management Education
- International Relations Council
- Mid-America Intercollegiate Athletics Association
- Missouri Academy of Science
- Missouri Biotechnology Association
- Missouri Campus Compact
- National Collegiate Athletic Association
- National Collegiate Honors Council
- National Council for Accreditation of Teacher Education
- North Central Association of Colleges and Schools
- Higher Learning Commission
- The Renaissance Group

In addition, UCM has earned the following specialized distinctions:

- Chemistry baccalaureate, American Chemical Society (ACS) approved

Admissions

High School Students. Students admitted to UCM are expected to have completed a 24-unit Missouri core curriculum requirement, have a minimum 2.00 high school grade point average, and either have a 21 or higher on the ACT (or SAT equivalent) or an admissions index score of 100. The index score is obtained by combining high school class percentile rank and the national percentile rank of the ACT score. Other applicants will be considered on an individual basis. All admitted students will be assessed for the purpose of placement in courses which will provide an appropriate challenge for their level of preparedness and enhance their opportunity for success.

Students who meet the following criteria are considered academically prepared and better able to take advantage of the opportunities available at Central Missouri: at least 24 units of college preparatory work, including these courses:

- a. Four units of English with an emphasis on writing skills
- b. Three units of mathematics (Algebra I and beyond)
- c. Three units of science (one must be a laboratory course in biology, physics, or chemistry)
- d. Three units of social science
- e. One unit of fine arts
- f. Three additional academic units including practical arts (1), physical education (1), health education (1/2) and personal finance (1/2)
- g. Seven units of electives (2 units of a single foreign language are strongly recommended)

GED/HiSET Applicants. General Education Development (GED) test scores may be used as a basis for admission to the university. Beginning in 2014, the test to establish high school equivalency is the HiSET. (For more information see *GED Applications and HiSet Applications*, this page.)

From Other Colleges and Universities. Students who are in good standing at other regionally accredited colleges and universities may apply for admission and transfer appropriate credit. Students are required to provide UCM with official copies of transcripts from all prior college and universities attended. Failure to disclose a transcript may result in dismissal from UCM. (See *Transfer Credit* in the *Types of Credits* section on page 10.)

International Applicants. All international students interested in applying to UCM must do so directly through the Graduate Studies and International Admissions Office (660-543-4621, WDE 1800). (See *International Student Admissions* on page 7.)

How to Apply

The Office of Admissions (660-543-4290, WDE 1400) must receive all admission applications and supporting documents prior to the first day of class.

During High School. Graduating high school students who wish to enter the University of Central Missouri should apply for admission early in their senior year so that the admissions process may be completed well in advance of enrollment. Each student should submit the following credentials to the Office of Admissions:

1. A completed application for admission
2. An official high school transcript mailed directly from the high school to the university Office of Admissions
3. American College Test (ACT)/SAT scores, including subscores and composite
4. \$30 application fee
5. If applicable, official transcripts from any colleges or universities where dual credit coursework was completed.

Admissions will make a decision based upon the 6th or 7th semester high school transcript and will permit enrollment for one semester. However, freshmen must provide a final high school transcript before being permitted to enroll in subsequent semesters.

The Success Program. The Success Program provides an alternative admission opportunity to students who do not meet the regular UCM admission criteria but who show academic promise. It is available by invitation only to a limited number of incoming freshmen in the fall semester. For more information about the program contact the Office of Admissions or visit ucmo.edu/successprogram.

After High School. Other students who have graduated from high school but have not attended a college/university should apply as early as possible. They should submit an application, \$30 application fee, and a final high school transcript. Those applying within two years of high school graduation must also submit ACT or SAT scores.

GED Applications. Applicants should submit a completed application, \$30 application fee, and official GED test results. A score of 2250 is required for admission. A score of 225 is required for students who took the GED prior to 2002. An ACT score of 21 is required for students who would have graduated from high school in the past two academic years. Students not meeting these requirements will have their applications reviewed on an individual basis.

HiSET Applications. Applicants should submit a completed application, \$30 application fee, and official HiSET test results. A minimum score of 75 is required with scores of 15 in each of the five subtests. An ACT score of 21 is required for students who would have graduated from high school in the past two academic years. Students not meeting these requirements will have their applications reviewed on an individual basis.

From Other Colleges and Universities. Students who wish to transfer to Central Missouri from other regionally accredited colleges and universities should (1) submit a completed application form with \$30 application fee and (2) arrange to have an official transcript sent to the Office of Admissions from each college or university previously attended. Failure to disclose a transcript may result in dismissal from UCM. Transfer students with less than 24 hours of college credit must also submit a high school transcript.

UCM posts and accepts all transfer grades (A-F). These grades are counted in a student's cumulative GPA and are taken into consideration for academic standing calculations. Students who have testing credit (CLEP, AP, IB, etc.) applied to another school's transcript must submit original test scores to UCM's Testing Services Office (660-543-4914) for consideration for credit at UCM. UCM's repeat policy, not the repeat policy of the transfer institution, will be applied to any course repeats. See details of the UCM Repeat Policy in this catalog.

Admission requires students to be in good standing and to have a minimum grade point average of C (2.00). Any student who does not have a transfer GPA of 2.00 may be granted admission on academic probation. Central Missouri's Office of Admissions will make an admission decision upon receipt of unofficial university transcript(s) and will permit enrollment for one semester. However, transfer students must provide the Office of Admissions (660-543-4290, WDE 1400) with final official transcript(s) from each university attended before being permitted to enroll in subsequent semesters.

International Applications. All international students interested in applying to UCM must do so directly through the Graduate Studies and International Admissions Office (660-543-4621, WDE 1800). (See *International Student Admissions* on page 7.)

Exception to Admissions Policies. All requests for exception to undergraduate admissions policies must be presented to the Director of Admissions (660-543-4290, WDE 1400).

Readmission. Students who have been away from UCM (not suspended or dismissed) for one semester or longer need to submit a new application for admission to the Office of Admissions. Summer semester does not apply. No additional application fee is required. Students must submit transcripts from all colleges attended that are not yet on file. Failure to disclose a transcript may result in dismissal from UCM. After a review of the academic records students will be notified as to whether they have been readmitted.

Reinstatement. The reinstatement of students who have been suspended or dismissed from UCM is not automatic or guaranteed. Petitions for reinstatement are reviewed by the appropriate college or center based on the degree program a student has selected for reinstatement. Students in the Intensive English Program (IEP) who wish to petition for reinstatement must contact the English Language Center at iep@ucmo.edu.

The reinstatement petition can be accessed in MyCentral in the Student Services tab. For the best selection of courses, students

should submit a petition in March for summer or fall semester reinstatement and in October for spring semester reinstatement. Petitions will be considered through the following deadlines:

Fall semester: July 15
Spring semester: November 15
Summer semester: April 15

The petition includes a written portion which should include an explanation of the circumstances that led to poor academic performance and an explanation of activities and plans which may lead to improved academic performance in the future. Other substantiating evidence may also be requested. No additional application fee is required. Students must submit transcripts from all colleges attended that are not already on file with UCM. Failure to disclose a transcript may result in dismissal from UCM. After a review of the petition, academic records, and any other substantive evidence available, students will be notified of the reinstatement decision. Some colleges may require students to meet personally with a reinstatement review board.

Students may petition for reinstatement as follows:

1. Students who have been suspended may petition for reinstatement after sitting out one fall or spring semester (Summer Session does not count as a semester for suspension purposes). Students who have been dismissed may petition for reinstatement after one calendar year.
2. A student with documented extenuating circumstances who has been suspended or dismissed may petition for immediate (or early) reinstatement. Petitions for early reinstatement may not be submitted via MyCentral. Students seeking this should contact the dean of their college directly for consideration. Early reinstatement is rarely granted and only applies for extenuating circumstances for which supporting evidence can be provided.

Visiting High School Students

Seniors. High school seniors who can meet their graduation requirements with less than a full load of classes may apply for admission to take one or more courses at Central Missouri if they can meet the following requirements:

1. Class rank in the upper half
2. Recommendation from counselor or principal
3. A plan for total class work not to exceed a full-time load
4. Released time to take university classes

The application process is the same as that for a full-time university student. (See *How to Apply* on previous page.)

Juniors. High school juniors may apply to take UCM classes during the summer before their senior year if (1) they rank in the upper half of their class and (2) are recommended by a counselor or principal. The application process is the same as that for a full-time university student (see *How to Apply* on previous page.) Students who wish to take classes prior to the summer before their senior year will be reviewed on an individual basis.

6 Admissions

NOTE: A student pursuing a high school diploma is not eligible to receive federal or state financial aid for classes taken at the University of Central Missouri. Before any financial aid can be authorized, all high school graduation requirements must be met and the student must be fully accepted for admission to UCM.

Visiting College Students

A student currently attending another college or university is permitted to enroll at UCM as a visiting college student. Enrollment under this status is limited to one semester per academic year. In order to apply, students must submit the application for admission along with a \$30 application fee. Transcripts from the student's primary institution will be required if enrollment in courses with prerequisites is desired.

At the completion of the course or courses at UCM, the visiting student should request that UCM's Registrar's Office (660-543-4900, WDE 1000) send an official transcript to the certifying institution. Courses taken at UCM for the purpose of transfer to another institution will apply toward hours on a degree at UCM should regular admission status be desired. These hours might not meet specific major, minor or general education requirements. The admission's application and supporting documents must be received in the Office of Admissions prior to the first day of class in order to be considered for regular admission for that semester.

Visiting students are not eligible to receive federal or state financial aid from UCM, the "host" school. Financial assistance for which a visiting student may be eligible is processed and disbursed by the student's "home" school, the college or university at which the student has been admitted to pursue a degree program.

Senior Citizens

Missouri residents who are 65 years of age or older may enroll for courses without tuition payment. Persons seeking this scholarship shall provide documentation of age to Central Missouri and satisfy all other necessary entrance requirements including a completed application for admission. This enrollment is for non-credit (audit) purposes and may only be used for classes located on the Warrensburg campus. This scholarship may not be utilized for Extended Studies class offerings, such as online courses.

Enrollment will be allowed no sooner than five days prior to classes beginning and on a space-available basis only. Contact the Office of Student Financial Services at 660-543-8266 for further information.

International Student Admissions

The Application Process. The International Center is a separate unit from International Admissions at UCM. As such, the International Center does not receive or evaluate applications, foreign transcripts, credits, or test scores. All international students interested in applying to UCM must do so directly through the Graduate Studies and International Admissions Office. All questions regarding international admissions should be forwarded to International Admissions at admit_intl@ucmo.edu.

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

Deadline for Fall admission: April 1

Deadline for Spring admission: October 1

Deadline for Summer admission (Intensive English Program only): April 1

International undergraduate applicants must submit the following items:

1. Application for admission
2. \$75 USD non-refundable application fee
3. Demonstration of English proficiency. Proficiency may be demonstrated by one of the following:
 - TOEFL exam score of 500 BPT/61 IBT
 - IELTS exam score 5.5
 - PTE academic score of 44

TOEFL scores must be submitted by Educational Testing Services (ETS) directly to the University of Central Missouri's Testing Center. The ETS code for the University of Central Missouri is 6090. IELTS scores should also be sent electronically to UCM. The IELTS School Organization code for the University of Central Missouri is 136009. 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 Center
Humphreys 216
Warrensburg, MO 64093
USA

The Demonstration of English Proficiency requirement is waived in cases where applicants have earned a degree from an appropriately regionally accredited college or university in the US or have earned at least 24 regular semester hours of university credit from an accredited US college or university. Additionally, this requirement is waived for applicants who are citizens of countries where English is the official language.

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 requirement is met or level six of the Intensive English Program is successfully completed. Institutional TOEFL 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.

4. Official Transcripts. For applicants who have never attended a post-secondary institution and those who have earned fewer than 24 university/college semester credits, secondary school transcripts and external examination results are required. For all applicants who have previously attended a post-secondary institution official transcripts are required from all institutions (colleges/universities) attended. All non-US transcripts should be submitted directly to World Education Services (www.wes.org) for authentication and a course-by-course, academic level, and GPA evaluation. Applicants with questions about credential evaluation requirements should contact the Office of Graduate Studies and International Admissions directly via email: admit_intl@ucmo.edu.
5. Declaration of Financial Support. This document is required to demonstrate sufficient financial support.
6. Official Bank Statement/Certification. This document is required as verification that adequate funds are currently and subsequently available to you in support of your tuition and living expenses while a student at UCM.

UCM does post and accept all transfer grades (A-F). These grades are counted in a student's cumulative GPA and are taken into consideration for academic standing calculations. Students who have testing credit (CLEP, AP, IB, etc.) applied to another school's transcript will have to submit original test scores to UCM's Testing Services Office (660-543-4919) for consideration for credit at UCM. UCM's repeat policy, not the repeat policy of the transfer institution,

8 Standards and Regulations

will be applied to any course repeats. See details of the UCM Repeat Policy in this catalog

English Language Center. The English Language Center (ELC), accredited by the Commission of English Language Program Accreditation (CEA), offers intensive instruction in English and short-term programs for English language studies. For qualifying students, the Intensive English Program (IEP) provides the opportunity 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, grammar, communication skills, vocabulary, accent reduction, testing skills, American culture, and academic preparation. These courses are credit bearing, but do not count toward completion of an academic degree.

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. During the orientation sessions, any international student whose native language is not English may be required to undergo further English evaluation for oral and written proficiency. Depending upon evaluation results, students may be required to enroll in special classes designed to improve English communication skills. The departmental-initiated oral and written English evaluations are waived if the student presents one of the following:

1. Secured a minimum TOEFL score of 580 (PBT) or 92 (IBT), an IELTS score of 7.0, or PTE-Academic score of 68
2. Earned a degree from an appropriately regionally accredited United States college or university
3. Earned at least 24 semester hours of regular university credit from an appropriately regionally accredited United States college or university

Health Insurance. All international students are required to participate in the Student Health Insurance Program.

Financial Aid. All international applicants are automatically considered for financial aid awards. The value of individual awards varies and is dependent upon academic merit and available funding levels. All awards are made at the time of admission to UCM. 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 to determine the student's eligibility of 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. More information regarding scholarships available online at ucmo.edu/scholarships.



Planned Placement

Central Missouri wants to ensure that all students are placed in academic courses for which the student is academically prepared. For this reason Planned Placement criteria have been developed to make placement decisions that facilitate student success. Three core components of the ACT exam (reading, writing, and mathematics) are considered for Planned Placement.

All students must be placed according to university policy. Students admitted without a recent ACT or SAT score (within the last five years) are automatically placed and enrolled into introductory math, English and reading courses. Placement testing is available to students wishing to challenge their placement to determine the preparedness of the student for college-level courses in mathematics, reading and English.

The Planned Placement test used at UCM is the ACT-COMPASS exam. There are three exams: English - Essay, Mathematics, and Reading. Each exam may be taken only one time, except for the Mathematics exam which may be taken twice. Scores are

available upon completion of each exam. Students living a distance from Warrensburg may contact Testing Services to determine if remote testing is available closer to their home. To test at a remote institution you must be registered by Testing Services for scores to be accepted.

For more information about planned placement or remote testing contact:

Testing Services
Humphreys 216
660-543-4919 or testingservices@ucmo.edu
ucmo.edu/testingservices

Placement criteria are as follows:

To enroll in:	Students must have an ACT score:
AE 1000: Introduction to College Writing	ACT English score 17 or below; SAT Writing score 420 or below
ENGL 1020: Composition I	ACT English score 18 or above; SAT Writing score 430 or above
ENGL 1080: Advanced Composition	ACT English score 26 or above; SAT Writing score 590 or above
AE 1820: Learning Strategies	ACT Composite 18 or below; SAT Composite 1320 or below
AE 1030: Introduction to Algebra.....	ACT Math score 16 or below; SAT CR+M score 810 or below (A grade of C or better is required in AE 1030 to progress into MATH 1101.)
MATH 1101: Intermediate Algebra	ACT Math score 17 or above; SAT CR+M score 820 or above; or AE 1030 Introduction to Algebra (A grade of C or better is required in MATH 1101 to progress into general education level MATH courses.)
MATH 1111: College Algebra	ACT Math score 20 or above; SAT CR+M score 940 or above; or MATH 1101 Intermediate Algebra with a grade of C or better
MATH 1131: Applied Calculus.....	ACT Math score 21 or above; SAT CR+M score 980 or above; or MATH 1111 College Algebra with a grade of C or better
MATH 1150: Pre-Calculus Mathematics.....	ACT Math score 21 or above; SAT CR+M score 980 or above;
MATH 1151: Calculus and Analytical Geometry	ACT Math score 24 or above; SAT CR+M score 1090 or above; MATH 1112 College Trigonometry or MATH 1150 Pre-Calculus Math with a grade of C or better
MATH 1215: The Mathematics of Decision Making	ACT Math score 20 or above; SAT CR+M score 940 or above; or MATH 1101 Intermediate Algebra with a grade of C or better
MATH 1300: Basic Statistics.....	ACT Math score 20 or above; SAT CR+M score 940 or above; or MATH 1101 Intermediate Algebra with a grade of C or better
MATH 1620: Contemporary Mathematics	ACT Math score 20 or above; SAT CR+M score 940 or above; or MATH 1101 Intermediate Algebra with a grade of C or better
MATH 1820: Intro. to Mathematical Modeling	ACT Math score 20 or above; SAT CR+M score 940 or above; or MATH 1101 Intermediate Algebra with a grade of C or better

Types of Credits

UCM Credit

UCM credits are hours earned through on-campus courses and online courses. This also includes courses completed at the UCM Summit Center or other UCM sites.

Dual Credit

Dual credit is a course which enables a high school student to receive, simultaneously, both high school and college-level course credit. Credit is transcribed both at the high school and at the college from which it is earned. UCM's dual credit courses are taught in high schools throughout Missouri, online, or over interactive television by university faculty or by department approved adjunct faculty. Courses approved for dual credit by the college departments include the use of the syllabus, textbook, teaching methodology, and student assessment strategies. Course content and course requirements are comparable to those utilized in the equivalent on-campus courses with the same titles. Dual credit students are provided tuition at a reduced rate, access to the James C. Kirkpatrick Library both online and in person, and access to campus computer labs. Information about UCM's dual credit program can be found online, ucmo.edu/dualcredit, or by calling Extended Studies, 660-543-4876.

Students who complete dual credit at a transfer institution must have an official transcript sent to the UCM Admissions Office for admission to UCM. UCM does post and accept all transfer grades (A-F). These grades are counted in a student's cumulative GPA and are taken into consideration for academic standing calculations. UCM's repeat policy, not the repeat policy of the transfer institution, will be applied to any course repeats. See details of the UCM Repeat Policy in this catalog.

Transfer Credit

Students are required to provide UCM with official copies of transcripts from all prior colleges and universities attended. This includes any international transfer institutions. Failure to disclose a transcript may result in dismissal from UCM. In awarding transfer credit from Missouri institutions Central Missouri follows the guidelines of the Council on Public Higher Education as 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). Credit will be accepted from an institution which is a candidate for accreditation, through a regional accrediting commission, if credit was awarded during a term of the candidacy. Students who wish to appeal the decision of the University of Central Missouri in the articulation of transfer credit from another regionally accredited institution of higher education may see the Office of Admissions.

All undergraduate college coursework attempted at regionally accredited institutions (and appropriately accredited international institutions) and corresponding grades will be included on the UCM transcript of degree-seeking students. However, UCM does not transcribe "W" grades (withdrawals) from transfer institutions. UCM does post and accept all transfer grades (A-F). These grades are counted in a student's cumulative GPA and are taken into consideration for academic standing calculations. UCM's repeat policy, not the repeat policy of the transfer institution, will be applied to any course repeats. Students who have repeated one or more courses at two different transfer institutions will have both grades figured into the cumulative GPA, but credit for the course

will only count once. See details of the UCM Repeat Policy in this catalog.

Work determined to be remedial or developmental (typically noted as "0" level, e.g., MATH 0105 or ENGL 022) will not transfer to UCM as earned credit. Transfer credit will retain the leveling and credit hours total as designated by the original granting institution regardless of whether a UCM equivalent's leveling or credit hour total is different. All courses taken at a two-year college and any 1000/2000 level courses taken at a four-year institution will not be applicable toward upper-level hour (3000/4000 level) requirements, even if these courses are used as substitutions for upper-level UCM courses. Quarter hour transfer courses will be converted to semester hours at the rate of 1 quarter hour = 2/3 semester hours.

Students who hold an Associate of Arts (A.A.), an Associate of Arts in Teaching (A.A.T.), a bachelor's degree from an appropriately regionally accredited institution in **Missouri** (including post-baccalaureate UCM students), or who have met the Missouri 42-hour General Education Core requirements are considered to have met all 42 hours of Central Missouri's requirements in General Education, including state law requirements, Section 170.011 RSMO Supp (1988) (the constitutions of Missouri and the United States). Students who hold one of the degrees mentioned above from an appropriately regionally accredited institution **outside of Missouri** must pass an exam on the constitutions of Missouri and the United States. This test is offered online, for free by the Department of History and Anthropology. Testing information can be obtained by calling 660-543-4404.

Transfer students who have completed an A.A., A.A.T, a bachelor's degree from an appropriately regionally accredited institution in the United States (including post-baccalaureate UCM students), or the Missouri 42-hour General Education Core must also complete any major- or minor-specific General Education courses and Competency 10 of the UCM General Education which is fulfilled by a course designated in each major. The state of Missouri requires certain General Education courses for teacher certification. These requirements are outlined for each teacher education major in Section II of this catalog.

For students with an associate's degree other than the A.A. or A.A.T. (such as the A.S.), the university reviews transcripts and accepts applicable credit on a course-by-course basis. Courses taken at a two-year college will not be applicable toward upper-level hour (3000/4000 level) requirements, even if these courses are used as substitutions for upper-level UCM courses.

Elective Transfer Credit

Courses already determined to have UCM equivalents will be applied on the UCM transcript upon receipt of an official transcript from the credit granting institution. Accepted transfer courses that have no UCM equivalents will be deemed elective courses and appear in the format of ELCT L### or ELCT U####. These elective hours do count towards the degree hours, but will require further evaluation to fulfill a particular major, minor, or General Education course. To have an elective transfer course considered for articulation to one of UCM's courses, students may submit the Articulation Request form at ucmo.edu/articulation.

For courses unable to be articulated, students may seek a course substitution. For substitutions in the General Education requirements, students should meet with their professional academic

advisor. For major or minor requirements and General Education courses required by the major or minor, students should visit with the department chair of the major or minor to discuss possible substitutions.

Credit by Exam and Other Types of Credit

Students may count a combined total of 60 credit hours of SC and CR credits towards their degree. Each type of credit, SC and CR, is limited to 30 credits.

Credit by Exam

Credits by exam are based on nationally normed standardized exams (such as AP, IB, and CLEP). **This type of credit does not count towards residency hours or upper-level hours at UCM** and is denoted with a SC (“special credit”) on the degree audit and transcript. There is a 30 hour credit limit on the amount of SC credit that may be used towards a degree.

Nationally Normed Standardized Exams

The following exams are those accepted for review at UCM for possible course credit. Tests marked by an asterisk (*) are administered by UCM’s Testing Services.

Advanced Placement Examinations (AP)
(collegeboard.com/ap)

International Baccalaureate Program (IB)
(IBO.org)

(getcollegecredit.com)

*Math-for-Credit Exams (for MATH 1111 and 1620)

*Oral Proficiency Interview

*Writing Proficiency Test

*College Level Examination Program (CLEP)

(collegeboard.com/clep)

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Requirements for Course Credit by Examination

- Only test scores obtained within the past 10 years are accepted.
- Not all exams have a course equivalent at UCM.
- Only official test score reports sent from the test company directly to Testing Services will be reviewed.
- Official score reports are to be sent directly to:
Testing Services, Humphreys 216
University of Central Missouri
Warrensburg, MO 64093
- Students must score at or above the level established by the university to receive course credit by examination.
- Course equivalencies must be available as established by university faculty to receive course credit by examination.
- Course credit by examination cannot be applied to upper-level hour requirements or in-residence hours.
- Course credit by examination that would result in duplicate credit will not be granted.
- Course credit received by examination may or may not apply to a degree program.
- Students seeking course credit by examination when currently enrolled in the course must complete the exam prior to the 100% refund date for the course.

Course Credit by Examination from Other Institutions

Course credit by examination from other institutions is not automatically transferred to UCM. Review course credit by

examination equivalencies on ucmo.edu/testing-services or contact Testing Services to determine if a course equivalent for the exam taken is available at UCM. If a course equivalent is available and the test score is less than 10 years old contact the test company to request an official score report be sent to Testing Services. The score report will be reviewed to determine eligibility for credit.

Other Types of Credit

In addition to credit by exam, there are many other types of credit awarded at UCM. Credit may also be earned from certificates, licensures, work experience, military experience, international transfer credit, or validated credit. These types of credit involve credit only and do not include a letter grade. Therefore, credit only has an impact on hours earned and not on grade point average.

Credit earned from these types of experiences do not count towards residency hours or upper-level hours at UCM. A maximum of 30 hours of these types of credit that may be applied toward a degree. These types of credits are denoted with a CR (“credit”) on the degree audit and transcript. Descriptions and details of each type of credit follows.

Credit for Official Certifications, Licenses, Diplomas and Work Experience.

In certain instances, academic departments will evaluate work experience and official certifications, licenses, and diplomas granted by fully accredited national and state boards and officially recognized professional organizations to determine whether or not undergraduate credit may be assigned by the Associate Provost for Academic Affairs toward the fulfillment of degree requirements in a major or minor. Appropriate university departments 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. Paperwork, signed by the chairperson, college dean, and Associate Provost of Academic Affairs will be submitted by the academic department to the Registrar’s Office for processing. This type of credit does not count toward residency hours or upper-level hours at UCM and is denoted with a CR on the degree audit and transcript. A maximum of 30 hours of these types of credit that may be applied toward a degree.

Military Service-Related Credit for Personal Interaction. Credits earned by service personnel in specialized training programs of the United States armed services under certain circumstances may be accepted. The guidebook published by the American Council on Education is used to determine the credit value. Official transcripts or a copy of the DD-214 should be sent to the Office of Extended Studies (HUM 410, 660-543-4984) which will review them and determine the appropriate credit, if applicable. This type of credit does not count towards residency hours or upper-level hours at UCM and is denoted with a CR on the degree audit and transcript. A maximum of 30 credit hours of coursework will be awarded for military service-related credit. Community College of the Air Force (CCAF) credit is awarded as regular transfer credit.

Validated Credit. A student is able to earn college credit by demonstrating specific competencies. These tests or measurements vary by department and are free to the student. Validated credit is an option within four areas of the General Education program: Composition (for ENGL 1020, if ENGL 1080 is passed with a grade of C or higher), Communication, Modern Foreign Language, and Mathematical Reasoning. See the appropriate department for more information. Validated credit does not count towards residency hours or upper-level hours at UCM and is denoted with a CR on the degree audit and transcript. A maximum of 30 hours of these types of credit that may be applied towards a degree.

Housing

The University of Central Missouri requires first-year students to reside in university housing for two years and have a specified meal plan. Transfer students who have successfully completed 60 or more UCM accepted credit hours can apply for exemption to this policy. Residency status is also satisfied by the student being 21 years of age or older, current active duty military service, on-campus residency for two academic years, or residing with a parent or grandparent within 50 miles of Warrensburg.

On-Campus Housing

The University of Central Missouri provides a variety of on-campus housing opportunities. Our accommodations attract a substantial number of junior and senior level students. Early application for housing is recommended.

Arranging for Housing. Contact the Office of University Housing, L23 Ellis Complex, or call 660-543-4515 for applications and information. Assignments are made according to 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 with requests due to disability will need to provide Housing or Accessibility Services with appropriate professional verification supporting the request. Six to eight weeks notice is recommended.

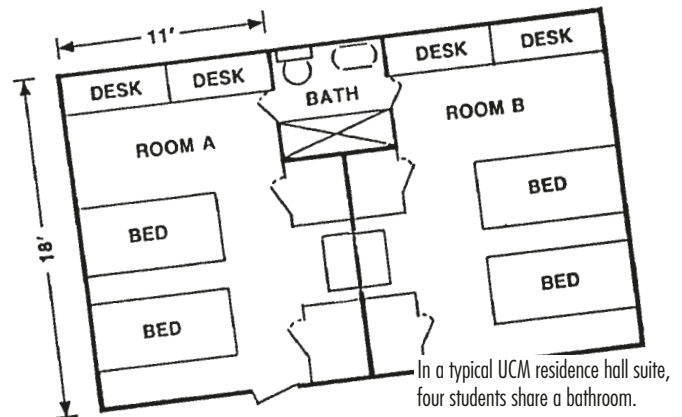
Residence Halls. Residence halls are located on the east and west sides of campus. Students may choose from a variety of housing options. Most halls are air-conditioned.

Freshmen (under 21 years) are assigned to first-year floors. These environments are carefully designed to help acclimate the new student to the UCM campus. Special staffing, educational and social activities, faculty involvement, student government, and access to a variety of campus resources create an environment where student success is emphasized.

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 cable television capability and wired and wireless Internet access. All rooms are furnished with desks, beds, mattresses, chairs, draperies or blinds, a chest of drawers and mirror. However, residents may bring additional items to make their rooms more home-like. Residents have ready access to coin-operated washers and dryers, but they must furnish their own irons and fireproof ironing boards. Mail is delivered regularly to the main desk at each residence hall. Lounge areas and recreation facilities are open to all residents. Residence hall libraries and 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.



Upper-class/Graduate/Family Housing Apartments. Furnished one-bedroom apartments are available for sophomores. Students must be in good standing (not on academic or disciplinary probation) with the institution to reside in these units. A University apartment application along with a \$100 deposit (\$75 is refundable) is required to be placed on the waiting list. All apartments are assigned off 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 expanded basic cable.

Unfurnished apartments are available for students who are married, a single parent with children living with him/her full time, a graduate student, or an undergraduate student who is 20 years of age or junior status or above. Students must be in good standing (not on academic or disciplinary probation) with the institution to reside in these units. A university apartment application along with a \$100 deposit (\$75 is refundable) is required to be placed on the waiting list and all apartments are assigned off of 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 expanded basic cable. Students are responsible for gas and electric service.

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 alternatives. The food service accommodates students with special dietary needs. This service requires a doctor's request.

Fraternities and Sororities. Members of seven sororities live in Panhellenic Hall. Similarly, the Fraternity Complex accommodates eight fraternities.

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.

Nondiscrimination/Equal Opportunity Statement



UCM enjoys a student population that is sixteen percent multicultural and seven percent international. Last year, students from 45 states and 64 foreign countries attended Central Missouri.

The University of Central Missouri actively follows a policy of nondiscrimination with regard to age, race, color, religion, sex, national origin, sexual orientation, marital status, Vietnam Era veterans, and persons with handicaps and disabilities.

This policy applies to the awarding of student financial aid, and the recruitment, admission, housing, placement, and retention of students, faculty and staff. The university complies with the regulations implementing Title VI and Title VII of the Civil Rights Act of 1964 regarding race, color, national origin, religion and sex discrimination; Title IX of the Education Amendments Act of 1972 regarding sex discrimination; the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 regarding discrimination based on disabilities and handicaps; the Age Discrimination in Employment Act; and other state and federal laws and regulations.

Persons with inquiries concerning the university's compliance with the regulations above are directed to contact the General Counsel, Administration 208, 660-543-4730, or the Director of Human Resources, Administration 101, 660-543-4255, the University of Central Missouri, Warrensburg, MO 64093. Toll-free numbers for Relay Missouri are 800-735-2966 for TTY, and 800-735-2466 for voice callers.

Institutional and Financial 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 ucmo.edu/provost/info.cfm.



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 or by visiting ucmo.edu/sfs.

Supplemental Course Fees

Certain courses and programs require supplementary fees, materials, supplies, and activities at additional expense to the student.

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 undergraduate students in the Admissions Office and for graduate students in the School of Graduate and Extended Studies.

Financial Responsibility

Students have the primary responsibility for paying all charges incurred due to class enrollment, room and board choices, departmental charges and fines. Payment for a semester's cost is due in full approximately 10 days before the semester begins. Full payment dates are published in the *Student Planner/Handbook*, on the Office of Student Financial Services web site and on the student billing statement. Non-payment of charges or failure to make payment arrangements by the due date will result in additional fees being charged. Payment plan fees are added to the student account each month that payment is not made when due. 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 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. These are available in the "Student Services" tab, at the "Check Refund Dates" link.

No refund of instructional fees will be made for student-initiated reduction in class load after the third week of a course.

If a fee amount would be reduced due to load changes caused by failure of classes to materialize or class cancellation by the university, 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 of 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.

Withdrawal. Students who find it necessary to withdraw from UCM should initiate the procedure in the Office of Student Experience and Engagement (ADM 214, 660-543-4114). International students must notify the International Center (Elliott Union 302, 660-543-4195) prior to beginning the process of withdrawal from the university. The following refund schedule for instructional fees applies:

- Withdrawal during the first week of classes: full refund
- Withdrawal during second week of classes: 50 percent
- Withdrawal during third week of classes: 25 percent

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 of 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 Appeal. A student who believes that a refund greater than the established schedule should be issued may submit a written request to the Office of Student Experience and Engagement (ADM 214, 660-543-4114) for complete withdrawals or to their college advisement office for reduced load appeals. An online petition for reduced load appeals is available at: ucmo.edu/portal/refund. 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. Appeals for refunds associated with complete withdrawals must be submitted in writing to the Office of Student Experience and Engagement.

For the most current information on the Refund Policy, please see ucmo.edu/sfs/pay/refunds.cfm.



Financial Assistance

To help an individual reach his or her educational goals, the University of Central Missouri offers a variety of federal, state, and institutional grant, loan, and employment assistance, much of which is awarded on the basis of a student's calculated financial need.

The Office of Student Financial Services annually processes over \$115 million in assistance to nearly 86 percent of the students who attend the university. Each student's family and economic situation is recognized as unique, and every financial aid application is examined on an individual basis. The number of applications for financial aid, however, almost always exceeds the total amount of assistance available. Therefore, it is very important for each applicant to:

- Apply on-time (by April 1) each year
- Comply with all financial aid instructions, policies, and requests for follow-up information and documents
- Contact the Office of Student Financial Services with any questions:

In person: Ward Edwards 1100
 Telephone: 660-543-8266
 Fax: 660-543-8080
 Web: ucmo.edu/contactsf

Federal and state financial assistance may be used to help pay direct educational expenses, such as tuition/fees, books/supplies, and housing/meal plan charges, as well as variable living costs, such as off-campus housing, food, transportation, child care, and other personal costs related to attending UCM. In accordance with federal and state regulations, the responsibility for meeting these costs lies primarily with the student and his or her family. However, financial aid from one or more of the following programs can be awarded to supplement the family's financial contribution.

Types of Financial Aid

Grants (Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, and Access Missouri Grant) are types of assistance that do not have to be repaid.

Loans (Federal Stafford Loan, Federal Perkins Loan, and Federal PLUS (parent) Loan) are types of low-interest loans that must be repaid, but typically not until after the student graduates, withdraws, or drops to less than half-time enrollment status.

Employment (Federal Work-Study) assistance enables a student to earn a portion of his or her educational resources through part-time work on-campus or off-campus. Information about available Federal Work-Study positions, as well as university-funded student employee positions, is available from the UCM Office of Career Services, Elliott Union 302.

How to Apply

To apply for the above types of federal and state financial aid, a student must submit a **Free Application for Federal Student Aid (FAFSA)** each year. A student files the FAFSA online at fafsa.gov. No other Web site should be used. There is no charge to apply.

After submitting the FAFSA, a financial aid applicant may be required to provide supporting documents or clarifying information to the UCM Office of Student Financial Services. If required to do so, the applicant will be contacted by UCM, and should respond promptly.

Financial Need

A student's calculated need for federal and state financial assistance is determined by the federal processor of the FAFSA data. Once this calculation has been completed, financial aid is awarded to help meet the individual's level of need. The student is then notified by email of his/her award package, which is accessible at the MyCentral portal. The notification process begins each spring for UCM's earliest FAFSA applicants and continues throughout the year.

Scholarships

Nearly \$8 million in merit-based scholarship aid is awarded annually to students who demonstrate academic excellence, leadership, special talents, or potential in a specific field of study. UCM also offers scholarships to non-Missouri residents.

To be considered for an undergraduate scholarship, a student must:

1. Be admitted to UCM.
2. Meet minimum qualifying criteria.
3. Not be on academic probation.
4. Be a full-time enrolled undergraduate student (12 or more credit hours). A scholarship recipient may enroll for less than 12 hours and be considered to receive a proportional amount of an award under the following conditions:
 - Be enrolled in a UCM-approved internship or be student teaching, or
 - Be a last-semester senior completing a bachelor's degree program.
5. Earn a minimum of 12 undergraduate hours per semester at UCM.

If a student is the recipient of more than one University of Central Missouri scholarship, the combined total may not exceed the cost of education at UCM. Scholarships may also be adjusted or canceled if the recipient fraudulently misrepresents any information on a UCM document or engages in serious misconduct which warrants substantial disciplinary penalty.

For information about scholarships associated with specific majors, students should contact the academic department offering the program of study. For general undergraduate merit scholarship information, visit ucmo.edu/scholarships or the UCM Office of Student Financial Services, 1100 Ward Edwards Building, 660-543-8266.

In addition to scholarships from the academic departments, privately funded scholarships are extremely important in helping students to achieve their academic goals and inspiring them to become leaders in their community, state and nation. Generous donors have advanced the university's academic excellence by establishing nearly 600 scholarships to help students at all levels: from high school graduates beginning college to undergraduate students working on bachelor's degrees and graduate students pursuing advanced study.

For information about scholarships available through the UCM Foundation, visit ucmo.edu/foundation/scholarships. The application deadline for most UCM Foundation scholarships is March 1.

Other Assistance

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

Midwest Student Exchange Program

The Midwest Student Exchange Program (MSEP) is an interstate initiative established by the Midwestern Higher Education Commission to increase the educational opportunities for students in its member states. The University of Central Missouri is an active participant. MSEP permits legal residents of Illinois, Indiana, Kansas, Michigan, Minnesota, Nebraska, North Dakota and Wisconsin to enroll at UCM at a reduced rate of tuition. The number of MSEP recipients is limited, however, and is based on factors such as date of admission to UCM, ACT/SAT score, etc. Complete information about MSEP eligibility is available from the Office of Student Financial Services, Ward Edwards 1100, 660-543-8266.

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 can be made against the non-resident student fees normally charged to the student. For information about this credit contact the UCM Office of Admissions, 660-543-4290.

Choose Red Grant

The Choose Red Grant allows new, regularly admitted (not admitted on probation) students whose permanent residence is one of the eight states bordering Missouri to pay in-state tuition and fees for all classes on the main campus in Warrensburg. Missouri's eight eligible border states are: Arkansas, Illinois, Iowa, Kansas, Kentucky, Nebraska, Oklahoma, and Tennessee. Students admitted on probation are not eligible for this program. In addition, graduate students must be admitted to a graduate degree program and must remain in good standing to be eligible for the Choose Red Grant.

Satisfactory Academic Progress

Federal regulations require that every student who wishes to continue receiving financial aid must maintain satisfactory academic progress toward the completion of his or her degree or certification program. Satisfactory academic progress for financial aid purposes is defined as successfully completing at least two-thirds of the credit hours attempted during a school year and is checked each May after all spring semester grades have been posted. Undergraduate students must maintain at least a 2.00 cumulative grade point average to remain eligible for federal assistance. Graduate students must have a 3.00 cumulative GPA to maintain aid eligibility. Students should be aware that certain state financial assistance programs may require a recipient to maintain more stringent standards of satisfactory academic progress.



Short-Term Loans

The University of Central Missouri realizes that many students are dependent upon federal financial assistance to satisfy the costs of attending UCM. However, it is important to have some personal money on hand when beginning classes each semester to help pay incidental costs during the first week or two of classes. If an emergency arises, a student can apply for short-term loan funds at the Office of Student Financial Services, 1100 Ward Edwards Building. This assistance must usually be repaid within 60 days. A service charge of \$10 is levied to borrow from the UCM Short-Term Loan Fund, but no interest is charged.

Veteran Benefits

The UCM Veteran Benefits Representative assists approximately 500 students annually. This staff member is located in Elliott Union, 117 and can be reached at 660-543-8990. This person acts as a liaison between students requiring veteran services and the Veterans Administration offices in St. Louis and Kansas City. More information can be found at ucmo.edu/vets.

Support is provided to students enrolled at UCM who are in the Military Reserve/National Guard (Chapter 1606), on active duty or no longer in the military but eligible for VA educational benefits (Chapter 30), Veterans Vocational Rehabilitation students (Chapter 31), dependents of military personnel (Chapter 35), and personnel who contributed to the Veterans Educational Assistance Program (Chapter 32).

For information and assistance in completing and maintaining the proper documents to receive VA benefits, a student should contact the Veteran Benefits Representative in person, by telephone (660-543-8990) or by email (Imorse@ucmo.edu).

Standards and Regulations

Student Rights and Responsibilities

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 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. These requirements must be completed before a degree 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 being sought and to remain currently informed throughout the period of enrollment. The academic advisors, faculty, 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, and academic standing are no longer 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.

Family Educational Rights and Privacy Act

Central Missouri adheres to the federal Family Educational Rights and Privacy Act (FERPA). Copies of the full policy implementing the FERPA may be obtained from the Division of Student Experience and Engagement.

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 (mid-term or final grades, grades on assignments/tests)
- Grade point averages (cumulative, UCM, major, minor)
- Academic Transcripts
- 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 for Release of Information form with the Office of Student Experience and Engagement in Administration Building, Room 214 (660-543-4114).

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
- Date and place of birth
- County, state, or U.S. territory from which the student originally enrolled
- Major field of study
- 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 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
- Gender
- Parent name and address

Students who wish to suppress public access to their directory information can do so by contacting the Office of Student Experience and Engagement in Administration 214, (660-543-4114). Suppressing public access to directory information also means that student names will not be released for Dean's List designations in local newspapers, inclusion in the Commencement Program, or inclusion in lists requested for club participation or awards.

Amendment of Education Records

1. If a student believes the education records relating to the student 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 or not 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 Planner/Handbook* for information regarding this procedure.

Application for Exception Procedure

All requests for an exception to undergraduate academic university policies and procedures will be processed through the Office of the Registrar. Please refer to the current *Exception Procedure* in the *UCM Student Planner/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 may 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 or Accessibility Services, Elliott Union 222.

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 at parking@ucmo.edu or 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.

Alcohol and Other Substances

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 alcohol and drug testing 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 prohibit 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. Resources for assistance with alcohol or drug-related problems include the Counseling Center, University Health Center, Employee Assistance Program and a variety of community and regional referral services. For more information call the Counseling Center at 660-543-4060 or University Health Services at 660-543-4770.

Academic Policies

Credit Hours

Academic units are measured in credit hours. Most undergraduate 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.

Academic Load

The normal load per semester for an undergraduate student is 15 or 16 semester hours. A full-time undergraduate student is one pursuing 12 or more credit hours per semester or nine semester hours in the summer session (12 hours is required in the summer to be considered full time for financial aid). Most of UCM's undergraduate degrees require 120 credit hours and may be completed in a four year time period if an average of 15 credit hours are earned per semester. Some programs require additional hours, but may still be completed in four years with additional hours per semester or summer classes.

The maximum academic load for fall and spring semesters is 18 semester hours for freshmen and sophomores (less than 60 earned hours). Juniors and seniors (60 or more earned hours) in good academic standing may enroll in as many as 19 semester hours with the assistance of their academic advisor or the Registrar's Office. Freshmen/sophomores desiring to exceed 18 semester hours and juniors/seniors desiring to exceed 19 semesters hours must have the overload approved by their major department chair or the director of the Gateway Advising and Major Exploration Center office if no major is declared. Students on academic probation may not enroll in more than 15 semester hours during any semester of academic probation.

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 complete a minimum of 12 semester hours per semester. The International Center 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 hours of work at another higher education institution for a minimum total of 12 semester hours of work in a semester.

Summer Course Load Policy

The maximum course load is 12 credit hours for the entire summer semester. Undergraduate students may enroll for more than 12 hours with the approval of their major department chair or if open options, the director of the Gateway Advising and Major Exploration center. Twelve hours during the summer semester is considered full-time status for financial aid purposes.

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 semester hours for the entire summer semester.

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 (UCH) 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/benefitted from the aid, and will be required to repay all the federal and state assistance credited to his/her UCMO account for the semester.

Students who are not reported as absent during the Enrollment Validation period (the first week of classes during fall and spring semesters) 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.

Classification of Students

Freshmen are defined as those students who have completed zero through 29.5 semester hours of college credit. Sophomores are those who have completed 30 through 59.5 semester hours. Juniors must have completed 60 through 89.5 semester hours. Seniors are defined as all students who have completed more than 89.5 semester hours.

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 Union 222, 660-543-4421).

Final Examinations

Final examinations are given at the end of each semester according to an announced 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 President for Student Experience and Engagement. A fee of \$10 per final is charged for rescheduling of final examinations. 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 are processed by the Registrar's Office for a fee. Go to www.ucmo.edu/registrar for more information on transcripts. Unofficial transcripts are available for free to students in MyCentral. Unofficial transcripts do not show degrees earned. Students who have a financial hold on their account may not place orders for official transcripts or view unofficial transcripts in MyCentral. The Central Degree Audit in MyCentral has a Course History feature that is similar to a transcript and is available to students who have financial holds.

Central Degree Audit (DegreeWorks)

Central Degree (also called DegreeWorks) is the degree audit reporting system used at UCM. The Central Degree produces a report that reflects a student's degree requirements in a given catalog year and degree program. It includes both transfer credit and UCM credit and shows a student's progress towards 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 the Student Services tab under the section "UCM Student Records".

In addition to Central Degree reflecting the student's current academic major(s) and minor(s) (if applicable), students may run a "what-if" degree audit as a way to explore how their current courses completed would apply to different majors, minors, or catalogs.

Degree audits will reflect The Honors College requirements for those students accepted into The Honors College. Honors students who take courses outside of the typical honors choices may need substitutions provided from the dean of the The Honors College for the audit to reflect them properly.

Degree audits may include double majors and double minors. Students pursuing double degrees can view two different degree audits, one for each degree. Individualized major and minor curriculum is not reflected on degree audits. Students pursuing an individualized major or minor should use the Central Degree Audit for general university requirements and general education requirements and consult their individualized major/minor contract for major/minor requirements.

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 the major or minor requirements must be approved in writing by the department chair and submitted to the Office of the Registrar to be reflected on the Central Degree Audit.

Degree Revocation Policy

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

- A degree had been erroneously conferred when all requirements had not been satisfied at the time the degree was granted.
- A degree 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 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 recipient.

Unauthorized Persons in Classrooms

Persons who are not officially enrolled in a course may not attend a class session without the prior consent of the instructor. Persons bringing children on campus are responsible for their supervision and any inappropriate behavior.

Academic Standards

Grading System

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, and Work Experience (limited to 30 hours towards a degree)
- 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
- P – Work of passing quality in a-pass/fail course (limited to 9 hours towards a degree)
- SC* – Credit by examination (AP/IB/CLEP), etc. (limited to 30 hours towards a degree)
- U – Course not completed for justifiable reasons, students may not graduate with a U on their record
- W** – Course dropped during withdrawal period

* CR and SC credits do not count towards residency hours or upper-level hours requirements. Up to 30 hours of each type, CR and SC, may be applied to a degree program.

** For more information about withdrawal grades, refer to the section *Changes in Schedules*, and either the Calendar in this catalog or the *Student Planner/Handbook*. Course withdrawal and refund dates can also be found in MyCentral in the Student Services tab in the UCM Registration section under the link Check Refund and Withdrawal Dates.

Grade Point Averages

In order to receive a degree, a student must earn a minimum grade point average of 2.00 (C) in each of the following areas:

1. All work attempted (cumulative GPA, includes transfer work)
2. All work attempted at Central Missouri (UCM GPA)
3. All work taken to satisfy major requirements at UCM
4. All work taken to satisfy minor requirements at UCM

Students must review their degree and major program for all minimum GPA requirements. Several degree programs specify grade standards that may apply to acceptance into a program and/or that must be maintained for graduation from a program. Such special standards are listed under the major programs in the curriculum section of this catalog.

Computation of Grade Point Average

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, P, SC, or W is not considered.
7. Each semester hour of U and NR is not considered until a grade is assigned.

Academic Standing

Student academic standing is determined by both the cumulative GPA and the UCM GPA. Students can find their academic standing in MyCentral in the Student Services tab under "Check Your Registration Status" or "Unofficial Transcript".

Good Academic Standing

Central Missouri students who have both a 2.00 cumulative and UCM grade point average are in good academic standing and are eligible to enroll for classes.

Academic Probation

A student whose cumulative GPA or total UCM GPA drops below 2.00 will be placed on academic probation. New freshmen admitted to UCM as part of the Success Program are admitted on academic probation. A transfer student will be placed on academic probation at the time of admission if his/her cumulative GPA is less than 2.00. Students placed on academic probation may continue to enroll in classes. Students are encouraged to seek advice from their professional academic advisor about future enrollments. Students on academic probation may not enroll in more than 15 semester hours during any semester of academic probation.

Removal From Probation

A student placed on academic probation will continue on probation until the UCM GPA and the cumulative GPA are 2.00 or higher. When a student on academic probation raises their UCM GPA and their cumulative GPA to 2.00 or above, the student is removed from probation. Transfer credit may not be used to raise the UCM GPA.

Academic Suspension

A student on academic probation will be suspended from Central Missouri at the conclusion of his/her next semester/enrollment period if his/her semester/enrollment period GPA is less than 2.00. A transfer student who was admitted on probation will be suspended from Central Missouri at the conclusion of his/her first semester/enrollment period if his/her semester/enrollment period GPA is less than 2.00. Academic suspension is for a period of one full semester (not including summer semester), after which students may petition for reinstatement. Reinstatement is not automatic nor guaranteed. International students must contact the International Center immediately upon suspension from the university.

Academic Dismissal

A student who has been suspended and later reinstated and continued on probation but does not achieve a semester GPA of 2.00 or higher in a subsequent semester/enrollment period will be dismissed. Academic dismissal is for a period of one calendar year, after which a student may petition for reinstatement. Reinstatement is not automatic nor guaranteed. International students must contact the International Center immediately upon dismissal from the university.

Reinstatement. The reinstatement of students who have been suspended or dismissed from UCM is not automatic or guaranteed. Petitions for reinstatement are reviewed by the appropriate college or center based on the degree program a student has selected for reinstatement. Students in the Intensive English Program (IEP) who wish to petition for reinstatement must contact the English Language Center at iep@ucmo.edu.

The reinstatement petition can be accessed in MyCentral in the Student Services tab. For the best selection of courses, students should submit a petition in March for summer or fall semester reinstatement and in October for spring semester reinstatement. Petitions will be considered through the following deadlines:

- Fall semester: July 15
- Spring semester: November 15
- Summer semester: April 15

The petition includes a written portion which should include an explanation of the circumstances that led to poor academic performance and an explanation of activities and plans which may lead to improved academic performance in the future. Other substantiating evidence may also be requested. No additional application fee is required. Students must submit transcripts from all colleges attended that are not already on file with UCM. Failure to disclose a transcript may result in dismissal from UCM. After a review of the petition, academic records, and any other substantive evidence available, students will be notified of the reinstatement decision. Some colleges may require students to meet personally with a reinstatement review board.

Students may petition for reinstatement as follows:

1. Students who have been suspended may petition for reinstatement after sitting out one fall or spring semester (Summer Session does not count as a semester for suspension purposes). Students who have been dismissed may petition for reinstatement after one calendar year.
2. A student with documented extenuating circumstances who has been suspended or dismissed may petition for immediate (or early) reinstatement. Petitions for early reinstatement may not be submitted via MyCentral. Students seeking this should contact the dean of their college directly for consideration. Early reinstatement is rarely granted and only applies for extenuating circumstances for which supporting evidence can be provided.

Dean's List

To be eligible for the Dean's List, a student must be an undergraduate who earns 12 or more semester hours of residence credit during the fall or spring semesters with a grade point average for the semester of 3.50 or above. During the summer semester a student must be enrolled in nine or more semester hours and achieve a 3.50 or above grade point average.

Graduation with Honors

To be eligible for graduation with honors, a student must have earned both cumulative and Central Missouri grade point averages of 3.50. Those with cumulative and Central Missouri grade point averages of 3.50 to 3.74 graduate Cum Laude; 3.75 to 3.84, Magna Cum Laude; and 3.85 and above, Summa Cum Laude. Should the Central Missouri and cumulative GPAs be in different categories, the lower designation of honors will be recognized.

Grade Appeals

Students appealing a grade have one calendar year from the time the grade was issued to appeal any grade changes. 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 Planner/Handbook* for information regarding this procedure.

Grade Requirements for Program Admission and Graduation

In addition to the general requirements applicable to all areas, several academic programs specify grade standards that may apply to program admission and/or graduation from a program. Such special standards are listed under the major programs in the curriculum section of this catalog.

Unfinished Work

An instructor may report a semester grade of U when, for justifiable reasons, the student has not completed the work of the course. For example, if a student has an illness or death in the family during the last week of the course, an extension may be granted at the discretion of the instructor. At the end of the next semester (Fall, Spring or Summer) the U becomes an F unless the course requirements have been satisfactorily completed or the course is of an individualized nature, e.g., thesis, research report, or similar investigation. Students do not enroll in the class during the subsequent semester. Students having more than one U grade are expected to reduce their course load accordingly in order to complete the unfinished work. It is the student's responsibility to contact his/her instructor concerning the removal of the U grade. Students may not graduate with a U grade on their record. If the work is unable to be completed or the student does not wish to complete the work (in the case of an elective course), the grade will be changed to an F to meet graduation requirements.

Enrollment Regulations

Changes in Class Schedules

Adding Classes

Students may make changes in class schedules using self-enrollment in MyCentral through the Drop and Add period (typically one week after the start of classes). Courses may not be added after the Drop and Add period, unless a late add is approved by the department chairperson of the course.

Dropping Classes

Students may make changes in class schedules using self-enrollment in MyCentral through the Drop and Add period* (typically one week after the start of classes). 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* (second week through the 10th week of fall and spring semesters), a student may drop any full-semester class using self-enrollment in MyCentral.

Students who have a hold on their account will not be able to process course drops in MyCentral. See your academic advisor, department, or the Registrar's Office for assistance with the drop.

Students may wish to consult with an academic advisor and/or the course instructor prior to withdrawal. International students must seek approval from the International Center, Elliott Union 302, prior to dropping below a full course load of 12 semester credit hours during any semester. Withdrawal from a course during a Study Abroad program is not permitted during the last one-third of the period.

A grade of W is recorded as the final grade if the course is dropped during the withdrawal period* (second week through the 10th week of fall and spring semesters). A grade of W has no impact on grade point average but is reflected on the transcript. In the event that a student has been found guilty of academic dishonesty, a grade of F will be recorded and will impact the grade point average.

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 and the instructor will be informed of the approval. A grade of LD will not impact the grade point average, but will be reflected on the transcript.

*Course-specific refund and withdrawal dates may be found in MyCentral. These dates can be found in the Student Services tab, UCM Registration section titled Check Refund Dates.

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 department chair over the course regarding enrollment. During fall and spring semesters the waitlist ends one week after the start of classes. This date coincides with the last day to add a full semester class and the last day for a 100% refund for a full semester class. The waitlist for second half semester classes ends one week after the start of second half semester classes. During the summer semester, the waitlist ends on the first day of classes 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 student university email account if added to a course from the waitlist. The waitlist will not enroll a student beyond the maximum allowed hours (typically 18 or 19). Nor will the waitlist allow a student to enroll if a time conflict exists between the student's schedule and the waitlisted course.

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 at ucmo.edu/registrar/enrollment/waitlist.cfm.

Withdrawal from the University

Students who leave the university must officially withdraw through Student Experience and Engagement (Administration 214, 660-543-4114). International students must notify the International Center (Elliott Union 302, 660-543-4195) prior to beginning the process of withdrawal from the university. 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. 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 LW will be assigned and the instructor will be informed of the approval. 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 contract. (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 of 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 any person who is enrolled as a student and is called to active service or training, whether voluntarily or involuntarily, prior to the completion of the semester, that person must submit documentation to the Office of Student Experience and Engagement (ADM 214, 660-543-4114) 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 from which 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 such person 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 person 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 person 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 academic advising, financial issues, testing, and health center holds.

Students can check for holds on 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 during fall and spring semesters. Online, hybrid, classes that begin the first week of classes, and second-half semester classes that begin during the first week of that session are included in this policy. Dual credit, 0-credit hour classes, internships/practica, thesis/special projects 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 Blackboard. 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 its Web-based Student Self-Service program.

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.

Repeat Enrollment in Courses

Students may repeat courses at UCM regardless of the grade earned in the course. However, **the most current grade earned will be the one calculated in the grade point average, even if it is not the highest grade.** This policy applies to courses taken initially at UCM and then repeated at UCM; courses taken initially at transfer institutions and then repeated at UCM; and courses taken initially at a transfer institution and then repeated at the same transfer institution. For the repeat policy to be implemented, the courses must have the same prefix/number and course content.

Repeated courses will not factor into either the grade point average or earned hours (only the most current grade and hours, if applicable, will count), although all prior grades will remain on the transcript as a matter of record. *Students should check with departmental policies regarding course repeats which may be more stringent than the university policy.*

The following specific stipulations apply to the above repeat enrollment policy:

1. **Courses taken at Central Missouri and then repeated at another institution will have both grades computed into the cumulative grade point average, but the credit (if earned) will only count for the first time taken.** The UCM GPA is not impacted by transfer course work but the cumulative GPA is impacted.
2. **Courses taken at two different institutions other than UCM will have both grades computed into the grade point average, but the credit (if earned) will only count for the first time taken.** If a grade of F is earned first and then followed by a grade of D or higher, the credit from the second attempt will count.
3. **Repeating a course under the pass/fail option will not negate the initial grade received.** Credit (if earned) will only count for the first time taken. If a grade of F is earned first and then followed by a grade of P, the credit from the second attempt will count. See pass/fail program policy below for more information.
4. **Credit hours for repeated courses will be counted only once in the number of course hours earned toward a degree.**

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.

The Pass/Fail Program

Pass/fail is a grading option that may be available to students instead of a traditional letter grade (A-F) under certain circumstances. One objective of pass/fail is to encourage students to experience courses they usually might avoid because of lack of confidence or initial competence. **Students may not opt to take courses in general education, major, or minor as pass/fail.** The following rules apply to courses taken for pass/fail:

1. Students may choose to take up to nine hours of **free electives** for pass/fail credit towards the hours required for graduation. **A free elective is a course which is not a requirement or elective for the student's major or minor and is not used to satisfy General Education requirements.** Study abroad credit and classes which are taught only as pass/fail are an exception to this and may count towards the major and minor credit if approved by the major/minor department.

2. Courses which are only offered as pass/fail and study abroad credits taken as pass/fail do not count toward the maximum of nine credit hours.
3. Upon enrollment students may designate the course or courses to be taken as pass/fail using self-enrollment. If pass/fail is not selected during the initial enrollment, students must designate pass/fail by the end of the fifth week of classes or within the first 13 class days for half semester classes. A course designated as pass/fail may not be changed to a graded course after that date.
5. Students who take a class as pass/fail and earn an A, B, C or D will have a P (Pass) recorded on the transcript and the grade will not be calculated in the grade point average, but the credit hours will count towards earned hours. A student who fails will have an F (Fail) recorded on the transcript and the F will be calculated in the grade point average. In cases of academic dishonesty, an F will be recorded at the discretion of the instructor.
6. A department may elect to offer a course for pass/fail credit only. Courses which are only offered as pass/fail do not count towards the maximum of nine credit hours. Courses that are offered only for pass/fail credit are designated in this catalog.
7. Students who plan to study at an institution outside the U.S. (UCM-sponsored Study Abroad) may elect to take all or none of the courses completed abroad as pass/fail credit or letter grade credit. If the student elects to take these courses for pass/fail credit, he/she must provide written notification to the Study Abroad staff in the International Center before beginning the Study Abroad program.
8. Study tours through Extended Studies are not exempt from the nine-hour maximum.

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 requirements. 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 undergraduate level are divided into five categories. In general, the following may be considered guidelines:

- 0000**-level courses are primarily used for skills development and do not count as hours earned toward graduation. These hours also do not count for consideration of full-time status or factor into the calculation for Satisfactory Academic Progress (SAP) for financial aid purposes. Grades earned in these courses taken at UCM do factor into the GPA. Grades in zero-level courses from transfer institutions do not factor into the GPA.
- 1000**-level courses are primarily for freshmen students.
- 2000**-level courses are primarily for sophomore students and those students with required prerequisites or backgrounds.

- 3000**-level courses are primarily for junior students and those students with required prerequisites or backgrounds.
- 4000**-level courses are primarily for senior students and those students with required prerequisites or backgrounds. Most courses numbered at the 4000 level are offered for either undergraduate or graduate 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 will have different course requirements.
- 5000**-level courses are offered only for graduate credit.
- 6000**-level courses are offered only for graduate credit and require 10 or more semester hours of graduate credit for enrollment.

Graduate level courses cannot be applied to the undergraduate degree programs.

Course Prerequisites

A student is expected to have satisfied prerequisites required of any course in which he/she 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 at the back of this catalog and also 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.

Undergraduate Enrollment in Graduate Courses

Graduating UCM seniors may arrange, in their final semester of undergraduate study, to take courses for graduate credit, as long as their total course load does not exceed 16 credit hours. To do so, students must submit an application for admission to the Office of Graduate Studies, complete a Petition for Dual Enrollment, and apply for undergraduate graduation. The petition for dual enrollment verifies the student is enrolled in all remaining undergraduate degree requirements. Upon approval from the School of Graduate and Extended Studies, the student will be enrolled in the requested graduate courses.

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 will have different course requirements. Graduate level courses cannot be applied to the undergraduate degree programs.

NOTE: A financial aid applicant classified as a senior 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 unless the student is fully admitted by both the School of Graduate and Extended Studies and the academic department of the graduate degree program.

Degree Requirements

Date of Catalog for Checking Degree Requirements

Students are subject to current administrative, academic and general policies and regulations. The 2014 *Undergraduate Catalog* becomes effective fall semester 2014.

Students may use the *Undergraduate Catalog* issued for any year 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 is conferred as a basis for degree requirements. Dual credit enrollment can count to establish catalog year, but students are encouraged to follow the most current catalog available when they begin regular enrollment at UCM. A student must earn academic credit at UCM during the year of the catalog chosen or have attended consecutive semesters at another regionally accredited institution of higher education in Missouri. 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 candidacy and/or conferral.

General Education Requirements

See pages 44-50 of this catalog for a detailed description and course listing for the UCM General Education Program. The minimum number of required General Education semester credit hours for all students, regardless of their program of study, is 42. Some degree programs may require up to six additional hours of General Education depending on the math, science, and technology courses required.

In addition, some majors and minors have specific required General Education courses. If a major or minor requires specific General Education courses, they are listed in this catalog for each program and are marked with a “GE” symbol.

Should a student change majors or minors from a program that does not require specific General Education courses to a program that does, a student may have to take additional credit hours in one or more of the defined areas of the General Education program if she/he has not taken the specific General Education course listed as a major or minor requirement. Transfer students must also meet all major and minor required general education courses, even if a prior degree or the Missouri 42-hour core has been completed.

Upper-level Credit

Upper-level credit is coursework at the 3000 and 4000 level. Hours earned as SC or CR credit (AP/CLEP/IB/military credits/work experience) do not count towards upper-level credit. Transfer credit will retain the leveling as designated by the original granting institution regardless of whether a UCM equivalent’s leveling is different. All courses taken at a two-year college and any 1000/2000 level courses taken at a four-year institution will not be applicable toward upper-level hour (3000/4000 level) requirements, even if these courses are articulated to upper-level UCM courses or used as substitutions for upper-level UCM courses.

Candidates for a bachelor’s degree must complete a minimum of:

- 30 total semester hours of upper-level credit
- 20 semester hours of upper-level credit must be earned at UCM
- 12 upper-level hours must be in the major subject, nine of these must be earned at UCM
- One upper-level hour must be in the minor subject (if applicable) earned at UCM

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.

A candidate for any bachelor’s degree must have earned the following minimum hours in residence at UCM:

- 30 hours overall
- 20 upper-level hours (3000/4000 level courses)
- 15 hours in the major
- 9 upper-level hours in the major
- 9 hours in the minor (if applicable)
- 1 upper-level hour in the minor (if applicable)
- the last 12 semester hours or any hours during the final semester required for the degree*

*Students who have an extenuating circumstance during their final semester may petition to take some of their final hours off campus. The petition is available at ucmo.edu/registrar/standards/hours.cfm. The petition must include the institution where the course(s) will be completed, the course prefix/number at both UCM and the transfer institution, and the reason the student is unable to complete the course through UCM. If the course is part of a major or minor program, the appropriate UCM department will also have to approve the petition. Official transcripts from the transfer institution must be received prior to the deadline for UCM degree conferral.

State Law Requirement, Section 170.011

Missouri state law requirement, Section 170.011 RSMO Supp (1988) requires that all students at public Missouri institutions have a course that teaches the constitutions of Missouri and the United States. Find more information about this requirement at moga.mo.gov/statutes/c100-199/170000011.htm. The following courses in the UCM General Education program fulfill this requirement: HIST 1350 or 1351 and POLS 1510 or 2511 and are denoted with a “#” in the General Education course listing. These courses must be taken from institutions in the state of Missouri. Courses from out of state institutions which are articulated or substituted for these courses will not fulfill state law requirement Section 170.011 RSMO Supp (1988). Students who have one of these courses from out of state or who have already fulfilled all nine hours of Knowledge Area III in the general education may fulfill this requirement by passing an exam on the constitutions of the United States and of Missouri offered by the Department of History and Anthropology (Wood 136, 660-543-4404).

Application for Graduation

An application for each undergraduate degree to be awarded must be made through the Registrar’s Office. Such applications must be received by the Registrar not fewer than 30 days before the date the degree is to be conferred. Students should apply for graduation online (ucmo.edu/portal/degreeapp) the semester before they plan to graduate, but after they have enrolled in all remaining requirements. The student’s 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.

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

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 are able to affiliate with academic honoraries, departmental 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 Union 217. To see a list of organizations and descriptions go to the Office of Student Activities Web page ucmo.edu/oca.

Fraternity and Sorority Life

Fraternities and sororities are a special type of student organization that many students choose to join while at Central Missouri. Greek Life offers students the opportunity to develop academic, leadership, and organizational skills, participate in community service, and make lifelong friends. Students join fraternities and sororities through a process called recruitment which typically occurs at the beginning of each semester. Friendship, fun, scholarship, community service, and school spirit – Greek Life has it all! For more information, visit the Office of Greek Life located in Panhellenic Hall, call 660-543-8121 or visit them online at ucmo.edu/GreekLife.

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, Multipurpose Building, 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 660-543-8646 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 extra-mural (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 660-543-8646 for information.)

Recreation Facilities

Multipurpose Building

The “Multi,” 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, a six-lane, 25-meter pool with a one-meter diving board, 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 new 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

Located in the Elliott Union, the Union Bowling Center is home to a 10-lane bowling alley, and the Digital Gaming Center featuring two Xbox 360s, Xbox Kinect, a Wii, and flat screen TVs. The facilities can be reserved for student organizational, departmental or general public events. Chick-fil-A® is located here, serving up fresh chicken sandwiches and waffle fries Monday through Saturday.

Recreational Programs

At UCM, we work hard and play hard. Our recreational programs have something to meet everyone’s needs. Intramural sports offers a wide range of individual and team activities including flag football, softball, volleyball, basketball, and soccer. We also have an indoor rifle and pistol range (located in the Humphreys Building) where students can experience the challenges of recreational shooting. 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 and 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 Office of Student Activities (660-543-4007) 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 tower. 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, 10 miles east of UCM, offers group and family picnic and camping grounds, hiking trails, and fishing opportunities.



Services and Facilities

Academic Advisement

ucmo.edu/advising

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 student, professional academic advisors, 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. Academic advisors help undergraduates plan career opportunities, determine degree programs, select courses and coordinate their academic progress.

The University of Central Missouri has created an advising system designed to meet the needs of all students. The Gateway Advising and Major Exploration Center serves all Open Option students. Students pursuing the General Studies major, as well as non-degree-seeking students (includes visiting high school and college students), and Aviation students at Whiteman Air Force Base are served by the Office of Extended Studies. Conditionally admitted students (Success Program) are dually served by the Student Success Center and the appropriate college advising center. International exchange students are dually served by the International Center and the appropriate college advising center. All other students are assigned to the colleges for advising by both professional academic advisors and faculty advisors. Students can find the name and email address of their assigned academic advisor on their MyCentral home page.

The offices which provide academic advisement are:

College of Arts, Humanities, and Social Sciences

Martin 124, 660-543-4814

cahssadvising@ucmo.edu, ucmo.edu/cahss

Harmon College of Business and Professional Studies

Ward Edwards 1600, 660-543-8577

harmonadvising@ucmo.edu, ucmo.edu/hcbps

College of Education

Lovinger 2160, 660-543-4888

coeadvising@ucmo.edu, ucmo.edu/ced

College of Health, Science, and Technology

Administration 105, 660-543-4554

chstadvicing@ucmo.edu, ucmo.edu/chst

Gateway Advising and Major Exploration Center

Ward Edwards 1900, 660-543-4721

gateway@ucmo.edu, ucmo.edu/gateway

Extended Studies

Humphreys 410, 660-543-4984

extcampus@ucmo.edu, ucmo.edu/es

Student Success Center

JCK Library 3160, 660-543-8972

studentsuccesscenter@ucmo.edu; ucmo.edu/successcenter

The International Center

Elliott Union 302, 660-543-4195

ucmo.edu/international

Academic Enrichment

Humphreys 127; 660-543-4061; fax 660-543-4829

ucmo.edu/ae

The Department of Academic Enrichment (AE) provides support for students throughout their university experience. AE courses and programs prepare students to be successful from General Education courses all the way through graduate-level studies.

AE courses (see course descriptions at the end of this catalog) earn elective credit towards graduation. Students in Academic Enrichment courses will develop and demonstrate knowledge and skills needed to:

- Meet or exceed UCM's academic standards through introductory college courses in composition, mathematics, and reading.
- Function successfully at UCM through courses designed to orient students to the university environment, college studies, diversity, and critical thinking.

Student Success Center

JCK Library 3160, 660-543-8972

studentsuccesscenter@ucmo.edu; ucmo.edu/successcenter

The Student Success Center, located on the third floor of the JCK Library, is the central location for FREE academic assistance and tutoring. The Success Center is open from 8 a.m. to 10 p.m. Monday through Thursday, and 8 a.m. to 5 p.m. on Friday. The Success Center offers individualized help for more than 50 content courses, including mathematics courses from Introductory Algebra through Calculus and Trigonometry. The Success Center offers additional tutoring in courses such as Accounting, Biology, Criminal Justice, Economics, Exercise Physiology, History, and Political Science.

Writing Center

Humphreys 116, 660-543-4367

writingcenter@ucmo.edu; ucmo.edu/ae/writing

Online Writing Lab (OWL) ucmo.edu/owl

The Writing Center offers one-on-one writing instruction and assistance with any paper or writing assignment from first-year courses through graduate theses. This is a free, walk-in service for students, no appointment necessary. Hours are Monday-Thursday, 8 a.m. to 7 p.m., and Friday, 8 a.m. to 5 p.m. The OWL (Online Writing Lab) provides helpful guidance for papers submitted through email (limited to three questions, three pages of a paper). Writing assistance for UCM Summit Center Students is available through Adobe Connect, Monday-Thursday 4 p.m. to 6 p.m.

McNair Scholars Program

Funded by a U.S. Department of Education grant, the McNair Scholars Program offers preparation for doctoral study. This TRIO program is designed primarily for juniors and seniors who meet government eligibility requirements. Activities include informational seminars, faculty advising, and the opportunity for a paid summer research internship. Students must apply for acceptance to the McNair program through the Department of Academic Enrichment. Additional information can be found at ucmo.edu/mcnair.

TRIO Student Support Services (TRIO-SSS)

HUM 119, 660-543-8782; fax 660-543-4829
trio@ucmo.edu; ucmo.edu/sss

SSS, a federally funded TRIO program, provides academic assistance to U.S. citizens and permanent residents who are first-generation college students, students from modest-income families, and/or students with disabilities. Tuition-free credit courses are offered in college success strategies and in writing, mathematics, and university study techniques to meet Planned Placement requirements (see Academic Enrichment course descriptions at the back of this catalog). In addition, free tutoring in high-risk courses, additional advisement, workshops, a computer lab, and a laptop loan program can be accessed through TRIO-SSS in the Department of Academic Enrichment.

Accessibility Services (ADA/504)

Elliott 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. OAS works with faculty, Housing, Facilities and other campus programs to provide opportunities for persons with disabilities. Some of the disabilities that are 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 recent professional documentation of the disability to OAS. The documentation will need to be on a professional letterhead and should indicate the nature of the impairment, that it is permanent or long term, and how it affects the student. Accommodations depend upon the disability and the documentation and might include testing services, text in alternative format, sign language interpreters, or other services. For more information see the OAS website.

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.

Alumni Association

Achauer House, 314 Holden Street; 660-543-8000
alumni@ucmo.edu; ucmo.edu/alumni

The University of Central Missouri's first graduating class founded the alumni association, which today has more than 88,000 members throughout the world. Its primary mission is to keep graduates connected with each other and to their alma mater. The association hosts alumni gatherings throughout Missouri and the country. Its largest annual event is Homecoming, which includes reunions for a wide variety of academic areas and student organizations. The UCM Alumni Association seeks to recognize the accomplishments of alumni through four annual awards: the Distinguished Alumni Award, Distinguished International Alumni Award, Distinguished Alumni Award for Service and Outstanding Recent Alumni Award. Children of alumni who attend UCM may apply for designated scholarships.

Membership in the UCM Alumni Association is part of your degree package. Members receive the quarterly magazine, "Today," as well as invitations to events and programs in their area. Other benefits include help with reunion planning and locating other alumni, access to university facilities, bookstore discounts, and career assistance.

Assessment

Humphreys 216; 660-543-4919
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/testingervices.

General Education Assessment

Information regarding the university's General Education Assessment Policy may be found in the General Education portion of this catalog.

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.

Business Innovation Institute

Dockery 101; 660-543-4663
bii@ucmo.edu; ucmo.edu/bii

The Business Innovation Institute provides entrepreneurial development services and technical support to technology-based businesses and high-growth enterprises. The institute also provides educational programs in finance, marketing, advanced manufacturing and intellectual property. Services provided range from one-on-one counseling to customized training in technology and business skills. Experts located both on and off campus provide consulting, training, and research assistance as needs are identified. These programs and services support the local businesses as well as have a direct positive impact on the Missouri economy.

Career Development Services

Ward Edwards 1200/1900; 660-543-4995
 cds@ucmo.edu; ucmo.edu/cds

Career Development Services provides comprehensive support for students in becoming confident, independent learners who consider and develop their careers within the context of choosing and successfully completing an academic program at UCM. While some may consider successful completion to mean graduation, in Career Development Services, this means so much more. It includes graduation, but also the attainment of the goals associated with the completion of a degree, such as a job offer in desired field or acceptance into a graduate school program.

The mission of Career Development Services is to provide a comprehensive career development program, educating students to make career decisions, connect with employers, and attain professional goals in a student-centered, state-of-the-art environment.

Career Development Services is comprised of two centers:

Gateway Advising and Major Exploration Center

Ward Edwards 1900, 660-543-4721
 gateway@ucmo.edu; ucmo.edu/gateway

The Gateway Center provides both individualized career counseling and courses in Exploring Majors and Careers for Open Option students. Whether one-on-one or in class, special emphasis is given to an exploration of self through the use of assessments, counseling, activities, discussions, and interviews. The focus starts with facilitating the methodical discovery of a student's professional passion, and shifts to the development of a plan to accomplish his/her goals. In addition to career counseling, the Gateway Center provides academic advising for Open Option students. Career counseling and gateway advising provide the cornerstone to an Open Option student's individualized career development plan.

Services in the Gateway Center Include:

- Gateway Academic Advising for Open Option students
- Individualized Career Counseling
- Exploring Majors and Careers Academic Courses
- Majors Fairs
- Career Development Planning
- Gateway Peer Support (GPS) Peer Mentoring

Career Services

Ward Edwards 1200; 660-543-4985; fax 660-543-4668
 careers@ucmo.edu; ucmo.edu/career

The Career 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 Center include:

- Individualized Career Development Coaching
- Resume & Cover Letter Assistance
- Practice Interviewing
- Job Postings & Resume Referrals
- Centralized Student Employment Assistance
- Internship & Job Search Strategy Development

- Career Workshops, Events, Expos & other on-campus Recruiting Opportunities
- Career Development Certificate Program
- Career Quick Tips Peer Mentoring

Career Development 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 University of Central Missouri 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 are offered through Career Development Services, taking advantage of these opportunities and gaining employment remain the student's responsibility.

The Center for Teaching and Learning

Administration 304F; 660-543-8528
 mewilson@ucmo.edu; ucmo.edu/ctl

The Center for Teaching and Learning advances Central Missouri's academic mission by encouraging and supporting the advancement of instruction, the scholarship of teaching and learning, and service learning. Professional, technological and developmental assistance for faculty and staff is provided by means of a coordinated training program, modern laboratory facilities and expert technical advice and support. The center seeks to integrate sound teaching practice with current instructional technology to foster faculty growth and to contribute to Central Missouri's statewide mission in professional technology.

Central Regional Professional Development Center

232 Foster-Knox; 800-762-4146
 centralrpd@ucmo.edu; ucmo.edu/rpd

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 and dining area in the undercroft. Private gifts recently 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 two child care centers on campus. The centers are located in the back of the Foster-Knox Apartment Building and at the community center at Central Village on Holden Street at the Central Village Apartment Complex. Both centers are 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 child care centers provide 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 Centers call 660-543-4605 for Foster-Knox or 660-543-4793 for Central Village.

The Counseling Center

Humphreys 131; 660-543-4060
ucmo.edu/cc

Reach your full academic and personal potential during the college experience by going to the Counseling Center. Students are helped to face and overcome concerns affecting their lives and their functioning in college. The Counseling Center is dedicated to providing a safe atmosphere for students of all genders, ages, races, cultures, socioeconomic backgrounds, sexual orientations, and spiritual beliefs. The Counseling Center offers a variety of services and is staffed by psychologists experienced in working with a variety of personal and social issues.

A psychologist at the Counseling Center can get you started in addressing your concerns. An appointment can help you develop a clearer understanding of the challenges you face and what is needed to cope with them. Some students benefit from one meeting, while others are seen for a few sessions. The Counseling Center also can direct you to the type of resources that would best suit your needs.

Counseling Center services include:

- Initial interviews to evaluate students' concerns
- Crisis intervention
- Brief individual and couples counseling
- Consultation to students, faculty, and staff about psychological matters
- Group counseling
- Speakers and presentations

Dining Services

ucmo.edu/diningservices

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

Resident Dining. Resident dining facilities accept meal plans, Dining Dollars, Central Cash, credit and debit cards, and cash. Resident dining options are located in Ellis Dining Center, Westside Market in Todd Hall, and in the Fitzgerald Dining Center. One of the options in Fitzgerald is Simple Servings. This area 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.

Retail Dining. In addition to regular meal service in the residence halls, there are a variety of retail locations across campus. These establishments accept Dining Dollars, Central Cash, credit and debit cards, and cash. The Elliott Student Union features, on the lower level, the Central Courte offering Burger King® Express, Pizza Hut® Express, Sub Connection®, and Southern Tsunami®. Taco Bell® is also located on the lower level of the Elliott Student Union.

Located on the main level by the Union Bowling Center is Chick-fil-A® which features fresh chicken sandwiches and waffle fries along with the Smart Market for all your convenience store necessities. On the main level in the union atrium is Jazzman's Café® with delicious coffee, espresso, latte, tea and fresh-baked desserts. Also available on campus is Einstein Bros Bagels® located in the James C. Kirkpatrick Library and the Student Recreation and Wellness Center featuring fresh-baked bagels, sandwiches, salads, and coffee. The Diner in the Fitzgerald Dining Center is a "late nite diner" open late for those students needing something to eat after hours.

Catering. Both on-and off-campus groups and organizations may arrange for catered refreshments and full meals through the Catering Office, Elliott Student Union 101, 660-543-4440.

Distance Learning

Humphreys 410; 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). Within the School of Graduate and Extended Studies, Distance Learning 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 Union

660-543-4052
ucmo.edu/union

The Elliott Union is centrally located on the main campus and serves as the "living room" for the campus community. The Union includes dining facilities, Jazzman's® coffee shop inside Cafe Rouge, 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 Union features an Information Desk that provides campus-wide information to students, staff, faculty and guests.

English Language Center

Wood 008; 660-543-8796; fax 660-543-4990
iep@ucmo.edu

The English Language Center (ELC) runs three different programs: the Intensive English Program (IEP), the Language and Culture Immersion Camp (LCIC), and Individualized Special Programs (ISP).

The IEP is accredited by the Commission on Language Program Accreditation (CEA). The IEP offers 8-week courses with six levels of instruction. Levels 5 and 6 are academic preparation courses. Level 4 is the transition course set to academic preparation. Levels 1-3 are pre-academic preparation courses. Full-time students in the IEP take 20-22 contact hours per week of courses in reading, writing, grammar, listening/speaking, and testing skills. The IEP also offers elective courses in vocabulary, American culture, and accent reduction. IEP courses typically have a 1:16 teacher to student ratio or less. All IEP courses are zero-level, credit-bearing courses which do not count toward the completion of an academic degree.

The mission of the Intensive English Program is to provide an intensive program which teaches a broad range of English language and study skills to non-native speakers of English so they can successfully pursue an academic degree program at the undergraduate or graduate level at a U.S. institution of higher education by demonstrating proficiency in reading, writing, grammar, and listening/speaking through a dynamic curriculum and cultural programming which responds to the needs of students in the program.

Extended Studies

Humphreys 401 & 410; 660-543-4984; fax 660-543-8333
extcampus@ucmo.edu; ucmo.edu/es

With the cooperation of Central Missouri's academic departments, Extended Studies administers courses and degree programs off campus and online. Extended Studies also coordinates Summer Sessions, workforce development programs, workshops, non-credit courses, contract training, high school dual credit courses, continuing education units (CEUs), faculty-led study tours (domestic and international), and entrepreneurial courses.

Institute for Public Safety

200 Ming Street; 660-543-4090
ucmpa.org

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, a basic 600 hour academy licensed by the Missouri Department of Public Safety's Peace Officer Standards and Training (POST) Program. 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

Humphreys 200; 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.

Institute of Justice and International Studies

Humphreys 300; 660-543-4950; fax 660-543-8306
cjinst@ucmo.edu; ucmo.edu/cjinst

The Institute of Justice and International Studies, housed in the Department of Criminal Justice, has an interdisciplinary focus that serves students, faculty, the community and a variety of practitioners. The Institute regularly organizes and hosts on-campus symposia and academic conferences. These events focus on a myriad of topics, such as wrongful convictions, juvenile justice, homeland security, culture and crime, and counter-terrorism. During such events, experts from around the world gather on campus at least one time per year to discuss critical justice issues from diverse national and international perspectives. The Institute regularly supports academic international study tours. Additionally, the Institute produces an annual internationally distributed scholarly refereed journal, the *Journal of the Institute of Justice and International Studies*.

The International Center

Elliott Union 302; 660-543-4195; fax 660-543-4201
ucmo.edu/international

The International Center consists of three areas including International Student and Scholar Services, the English Language Center and International Programs & Study Abroad. The Elliott Union is the home of the International Center which serves more than 1400 international students attending UCM. International students at UCM represent more than 60 different countries from around the world, bringing diversity to the campus community and to Warrensburg.

The International Center helps new international students settle into academic life in Warrensburg, provides intensive English instruction, counsels students about immigration issues, and advises UCM students who wish to study abroad. Students interested in attending school in another country while earning credit at UCM are encouraged to visit the International Center and inquire about UCM Study Abroad programs. Placement opportunities exist in approximately 300 institutions in more than 65 countries.

International Student and Scholar Services

Elliott Union 302; 660-543-4195

International Student and Scholar Services assists all international students and visiting international faculty through orientation, advocacy and programming activities. Other areas of service include immigration and student status certification activities, work authorization, sponsorship of the International Student Organization and the International Student Ambassador Program, and promoting the role of international education and alumni development.

KMOS-TV

University of Central Missouri's Broadcasting Services, KMOS-TV, serves over a 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 three separate digital channels, which include a full schedule of nationally acclaimed PBS prime-time and children's programming, award-winning local productions, lifestyle and how-to programs, and MHz Worldview featuring international news and entertainment.

Library Services

James C. Kirkpatrick Library; 660-543-4154; fax 660-543-8001
library.ucmo.edu

Library Services supports the University's instructional, research, and public service programs. The James C. Kirkpatrick Library has a centralized reference area and resources that include books, periodicals, government publications, non-print materials, e-resources, and special collections.

Library faculty and staff provide services to meet the needs of students, faculty, staff, and the local community. Assistance and instruction in library research skills and searching techniques are available both individually and via group sessions. Users may borrow most items from the library's collections. Remote access to most of the library's subscription databases is available to current members of the university community.

With the proliferation of information, resource sharing among libraries has become increasingly important. MOBIUS, a Missouri library consortium, offers convenient access to the online catalogs of more than 60 Missouri libraries, and the library's excellent interlibrary loan service provides needed resources beyond the state.

UCM's distance learners are encouraged to communicate with the library regarding services that meet their special needs. Telephone, email, and instant messaging services are all available options for communication if an individual cannot be in the Kirkpatrick Library. Librarian subject specialists are also happy to arrange individual research appointments with any student or faculty member.

More than 200 computers are located throughout the library, along with a variety of study spaces appropriate for individual and group use. Wireless connectivity is available throughout the building. Einstein Bros. Bagels Express®, housed on the first floor of the building, offers beverages and snacks.

Meeting and Conference Services

Elliott 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, please submit your event request 10 business days prior to your 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.

Mentoring, Advocacy and Peer Support

Dockery 212; 660-543-4156; fax 660-543-8613
ucmo.edu/maps

The Office of Mentoring, Advocacy and Peer Support (MAPS) promotes student success by: 1) using data to identify and intervene with at-risk students, 2) fostering the development of lifelong academic and interpersonal skills, 3) helping students develop confidence in their ability to succeed, and 4) increasing at-risk students' persistence to graduation.

Several resources exist in the MAPS office. Upon meeting with the MAPS office, students will receive personal attention based upon individual concerns and needs.

Areas within MAPS:

- Student Outreach: MAPS identifies and reaches out to academically at-risk students to provide essential support and connect them with needed resources as they progress toward graduation.
- Campus Advocate: The campus advocate works to support students who feel underrepresented, underserved or otherwise discriminated against. The advocate serves in an ombudsman role, supporting students, faculty and staff.
 - Facilitation of campus and community educational programming and activities related to human diversity.
 - Maintenance of campus diversity resource library.
 - Fostering of the UCM Community Creed.
 - Assistance to campus student multicultural programming.
 - Facilitation of goals related to human diversity as stated in the University Mission Statement.
 - Interaction with diversity-related offices and organizations on campus and in surrounding communities to build partnerships.
- Suspension Waiver Program: This is an award-winning, highly intrusive program for students with academic potential who have previously been suspended due to low grades.
- Title IX Advocacy: Trained professionals will provide support, empowerment and education to help any victim of sexual misconduct. Advocates will help the student engage in university and community resources to establish a course of healing.
- LGBTQ Outreach: A primary point of contact is available for students who may be experiencing difficulties relating to their identity as a part of the LGBTQ community.
- Mentorship Program: This program pairs upper-class student mentors with first-year students from traditionally underrepresented populations. Mentors provide their mentees with support, resources and guidance as they transition to college life.

- **Academic Responsibility Coaches:** ARCs are upperclassmen who reside in residence halls. They provide academic support and introduce students to a variety of support strategies and tools to boost their college success.
- **Academic Tutoring:** MAPS works extensively with the Student Success Center to offer quality, trained tutors for all UCM students, with a focus on at-risk students.

Military and Veteran Services

Elliott Union 117; 660-543-8776; fax 660-543-8044
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. The Military and Veterans Success Center (MVSC) provides a one-stop, full-service resource center to assist military and veteran students and those utilizing the Military Tuition Package. The MVSC has computers with CAC readers for student use, individual and group study areas, as well as soft seating and dedicated staff to assist students with their educational pursuit. 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

Humphreys 200; 660-543-4830; fax 660-543-4482
ucmo.edu/safetycenter

Established July 1, 1967, the Missouri Safety Center (MSC) proves the benefits of combining an academic department 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 basic 600-hour law enforcement training academy.

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 an entirely online Bachelor of Science in Crisis and Disaster Management degree. 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 Union 217; 660-543-4007
ucmo.edu/oca/nontrad

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 a veteran. This office provides information, support, advocacy, and referrals to campus and community support services. The office has information about non-traditional scholarships, commuter ride-sharing network, housing, child care, and tutoring or other skill enhancers.

Office of Technology

Ward Edwards 0101; 660-543-4357 (HELP)
tsc@ucmo.edu; ucmo.edu/ot

The Office of Technology is comprised of six teams, project management office, and an administrative staff that work together to support the technology needs and requirements of UCM's students, faculty, and staff.

Application Systems

The Application Systems (AS) team has core responsibilities for the Ellucian enterprise system and add-on modules that support the business functions of UCM that include students, finance, human resources payroll, financial aid, alumni, development, MyCentral portal, etc. The AS team works closely with functional departments and individuals to plan, coordinate, execute, support, and maintain the various applications core to the Ellucian environment in addition to those systems and applications that have a direct or indirect interface to the Ellucian database. The AS team services and supports the Oracle database engine, which is both the most important and largest database supported by this team and serves as the foundation of all official UCM data. The AS team also has a wide scope of responsibilities for the implementation and technical support of "non-Ellucian" enterprise and departmental systems and applications, also serving in an advisory capacity to those departments that want to maintain responsibility for their system or application.

CentralNet

The CentralNet team provides general oversight of academic systems that include Blackboard, AdobeConnect, streaming video, etc. CentralNet also provides assistance to faculty for online course development, academic research and development of software applications, and general academic media needs for faculty and students.

Computer Support Services

The Computer Support Services (CSS) team is responsible for providing general and specific computer hardware and software support for end-user computing devices that includes workstations, laptops, handheld devices, tablets, etc. CSS builds and deploys base images, conducts operating system updates and patches, provides acquisition assistance, and performs appropriate hardware repairs and replacement.

Network Services

The primary duty of the Network Services (NS) team is oversight of UCM's infrastructure (voice and data), which includes all the hardware, software, cabling, and services that makes up the voice and data network infrastructure. NS has specific responsibilities for network connections at the core, building and workstation levels, Internet connectivity, switches, routers, PBX, telephones (land lines and cellular), WiFi, access points, and the software utilized by each component.

Technical Services

Technical Services (TS) team is responsible for the server farm, storage environment, network operations center, and core applications associated with network connectivity and authentication. In addition, the TS team has responsibilities for data backups, active monitoring of systems, security, access, and the general well-being of servers. TS has oversight of enterprise servers as well as specifically identified departmental servers to include operating systems, hardware, patches, upgrades, permissions, access, and system defined availability.

Technology Support Center

The Technology Support Center (TSC) team provides first-line support to the UCM user community. The TSC conducts basic trouble-shooting, processes user requests for services, and answers general questions about campus technology. The TSC is your first step in requesting assistance, reporting a problem, or requesting new services from the Office of Technology. You can reach the Technology Support Center by calling 660-543-4357, visiting Ward Edwards 0800, or by emailing tsc@ucmo.edu. Walk-in support is available in WDE 0800 Monday through Friday from 7 a.m. until 8 p.m. Appointments may be made for weekend support as needed. TSC phones are answered 24/7. When TSC staff members are not on site, an answering service representative may take a message for call back the next day. If immediate service is required, TSC staff will be paged for rapid response.

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 Department of Communication 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 through the National Student Clearinghouse.

Transcripts

There are two types of academic transcripts – unofficial and official. Holds on student accounts will prevent access to both types of transcripts. Students have access to unofficial transcripts in MyCentral. Official transcripts are provided for a small fee and can be ordered in MyCentral.

An academic transcript shows a history of all courses taken, grades received, and hours earned. The UCM transcript includes name, UCM student number, and birth month and date. Social security number is not included on the transcript for security reasons.

Diplomas

Upon graduation all students receive a diploma. The cost of this diploma is included in the graduation fee billed to students during their last semester. Diplomas include the degree earned, major(s), and academic honors (if applicable). If the student earned a double degree (not double major), a diploma will be provided for each degree. Students earning a double major will receive one diploma which lists both majors.

Research

Ward Edwards 1800; 660-543-4264; fax 660-543-4778
ucmo.edu/osp

The Office of Sponsored Programs oversees programs that guide Central Missouri in its research, scholarly activity, and creative endeavors. The office maintains information about funding opportunities, assists in proposal development and submission, and ensures compliance with award management and reporting.

Research Involving Human Subjects

In order to comply with federal regulations and to protect the health and safety of human subjects involved in research, all research protocols involving the use of human subjects must be in compliance with *Academic Procedures and Policies #9: Procedures for Human Subjects Review*. All projects involving human subjects in research must be approved in advance by the Human Subjects Review Committee. Forms are available at ucmo.edu/osp.

Research Involving Animals

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.

School of Graduate Studies

Ward Edwards 1800; 660-543-4621; fax 660-543-4778
gradinfo@ucmo.edu; ucmo.edu/graduate

The School of Graduate Studies offers many Master's programs, an Education Specialist degree, cooperative Doctorate programs and various Graduate Certificates. A separate catalog is available for the graduate-level programs.

Student Experience and Engagement

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

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.

Student Volunteer Programs

Elliott Union 217; 660-543-4007
ucmo.edu/oca/volunteer/service.cfm

Student Volunteer Programs provide students with opportunities to become involved in the Warrensburg community. The office provides referrals to local agencies and schools for special projects and ongoing commitments. Each year a group of students spends spring break working with Habitat for Humanity building a home.

Testing Services

Humphreys 216; 660-543-4919; fax 660-543-5787
ucmo.edu/testing-services

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, NCTA.org.

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

- Test registration and/or information is available in MyCentral; There are several ways to register, depending on the test:
- Registration for some tests is available via MyCentral; click on the "Student Services" tab; click on the "Register for a Test" link at the bottom right-hand corner; click on the test day and time of your choice; complete the online registration process as directed.
- Registration for some tests must be completed in person at Testing Services, Humphreys 216
- Registration for some tests must be completed directly with the testing company.
- Advanced registration is required.
- Test fees and test 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 money orders or cash payable to UCM Testing Services will be accepted.
- Candidates are not fully registered until Testing Services confirms receipt of testing fees and seat availability.

Test Cancellation Policy

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 a minimum of 24 hours in advance of the test date and time, or a university-approved absence is provided.

Students with Documented Disabilities

Testing Services is pleased to accommodate students who have documented disabilities. In compliance with the Americans with Disabilities Act, candidates with documented disabilities, who wish to use their approved test accommodations, are responsible for:

- Requesting test accommodations at the time of registering for a test, but no later than a minimum of two weeks prior to a test.
- Requesting the Office of Accessibility Services, Elliott Union 222, 660-543-4421, provide Testing Services with approved accommodations. Testing Services needs the information a minimum of two weeks prior to the test date.
- Making payment of test administrative fees by registration deadlines.
- Confirming with Testing Services the test date, test location, and test time.

Testing Services is not able to provide test accommodations to students arriving for a test who have not followed the above procedures. The candidate will be allowed to either take the test under standard test administration conditions or follow the above procedures for another test date.

UCM Foundation

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

The UCM Foundation was incorporated in 1979 to advance and manage the university's external fundraising operations. Officially operating as a Internal Revenue Code 501(c)(3) organization, the UCM Foundation makes gift counts. It does this first by securing contributions, then by ensuring gifts benefit the specific areas donors designate or helps to finance the university's greatest needs. Private support makes it possible for UCM to provide strong academic programs and the quality learning experience that positions its students for career success. Scholarships is one of the largest areas where gifts make an impact. See *Scholarships* for more information.

UCM Summit Center

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

The UCM Summit Center located in Lee's Summit, MO, is an off-campus location whose mission is to serve adult learners in the Greater Kansas City metropolitan area. The Summit Center 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 included undergraduate completion degrees and graduate degree programs.

Union Station: Crossroads to Technology

Elliott Union 119; 660-543-4372 or 800-330-7698;
fax 660-543-4688; ustation@ucmo.edu

Union Station provides UCM students, faculty and staff with the latest technology, hardware and software, all at an educational price. An Apple Authorized Campus Store, Union Station sells the newest Apple systems, software and accessories. Additionally, Union Station carries HP, Dell and other popular systems. Union Station will also special order technology systems. Union Station's software assortment includes products such as Microsoft, Adobe and other software developers. From Ethernet cables to games to ink cartridges, Union Station provides the UCM campus with technology essentials. Check out Union Station's Web site at ucmbookstore.com and click on "Tech Store." Fall and spring hours: M-F, 8 a.m.-5 p.m.; summer hours: M-F, 8 a.m.-4:30 p.m.

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 carried on by faculty and students at these facilities.

University Health Center

660-543-4770; fax 660-543-8222
ucmo.edu/uhc

Clinical Services

The University Health Center, located at 600 S. College St., just south of the Elliott Union, offers a full range of primary health care services to students and their spouses, as well as selected services for faculty and staff. The Health Center is staffed by physicians, nurse practitioners, nurses, and other qualified professional and support staff, and operates primarily on an appointment system, although urgent illnesses and injuries are given priority. Fall and spring semester hours are Monday - Friday, 8 a.m. to 5 p.m. Contact the Health Center for summer and semester break hours.

Emergencies

In the event of a health emergency, call 911 from any campus phone, or visit Western Missouri Medical Center at 403 Burkarth Road.

Health Insurance

All students attending UCM should have adequate health insurance coverage. All international students are required to enroll in the student health insurance plan. Domestic students may enroll in the student health insurance plan for themselves and their dependents.

The student insurance plan provides benefits to insured students and their insured dependents on or away from campus, 24 hours a day. The insurance year runs from August to August, and may be paid for the entire year, or on a per semester basis. For more information about the student insurance plan, call 660-543-4771, or stop by the University Health Center to pick up a brochure.

Mandatory Immunization Requirements

Students must provide evidence of (two) vaccinations for immunity against measles, mumps, and rubella (MMR), and completion of the Mandatory Immunization Form. It is also required that all students living in university housing be informed about meningococcal disease and the availability of a vaccine that can lower the risk of contracting the disease. The Mandatory Immunization Form can be found at online at ucmo.edu/uhc/immunization_policy.cfm.

Office of Violence and Substance Abuse Prevention

The Office of Violence and Substance Abuse Prevention (VSAP) works closely with campus and community partners to create, implement, and evaluate best practice initiatives to address gender-based violence and substance abuse, and to increase the capacity of our community to address these issues. The VSAP staff coordinate the administration of online programs Alcohol Edu for College and Haven, work closely with the Campus Alcohol Board and Community Culture of Responsible Choices Coalition, and manage several state and federal grants. For more information about current initiatives or to learn about opportunities for involvement, visit ucmo.edu/vsap, call 660-543-4044 or stop by ADM 102.

University Store

Elliott Union 128; 660-543-4370
ucmbookstore.com

University Store, a college tradition and a partner in education, is the primary and preferred source for undergraduate and graduate textbooks. University Store works with UCM faculty to identify the course materials required for each course. Helping to offset the costs of higher education, University Store offers a textbook rental program. Students are required to return their rental textbooks no later than the last day of finals each semester. The ability to purchase rental titles is also available to students.

University Store utilizes the textbook buyback program to help students reduce their total cost of educational materials. The opportunity to participate in University Store's textbook buyback program is offered at the end of each semester.

University Store sells an assortment of officially licensed UCM clothing and souvenirs, offers a variety of popular magazines and trade books, and equips students, faculty and staff with a variety of classroom supplies.

A textbook reservation service is available each fall and spring semester. The reservation service may be accessed through University Store's Web site ucmbookstore.com. Fall and spring hours: M-F, 7:30 a.m.-5 p.m.; summer hours: M-F, 7:30 a.m.-4:30 p.m.



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 Communication Disorders and Social Work, 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; a feeding/swallowing lab with a Fiberoptic Endoscopic Evaluation of Swallow (FEES) station and a VitalStim Portable

Muscle Stimulation Unit; four audiologic suites where hearing evaluations, impedance audiometry, otoacoustic emissions, and video otoscopy are performed; an Augmentative and Alternative Communication (AAC) 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).

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.

SECTION II

Degree Program Requirements

Degrees

A degree is a formal title conferred upon an individual for the completion of a program of study. Undergraduate degrees are called baccalaureate or bachelor's degrees. These terms can be used interchangeably. Central Missouri offers the following baccalaureate degrees:

- Bachelor of Arts (B.A.)
- Bachelor of Fine Arts (B.F.A.)
- Bachelor of Music (B.M.)
- Bachelor of Music Education (B.M.Ed.)
- Bachelor of Science (B.S.)
- Bachelor of Science in Business Administration (B.S.B.A.)
- Bachelor of Science in Education (B.S.Ed.)
- Bachelor of Social Work (B.S.W.)

General Requirements for All Baccalaureate Degrees

1. A baccalaureate degree must total a minimum of 120 semester hours. Some degree programs require more than 120 semester hours.
2. Students must earn a minimum of 30 semester hours from UCM.
3. The last 12 hours of the degree must be earned from UCM.
4. A baccalaureate must include a minimum of 30 semester hours of upper-level credit from an accredited four-year institution and a minimum of 20 of those hours must be completed at UCM.
5. A baccalaureate must include completion of the General Education Program as prescribed by the university. See *General Education Program* in this section.
6. Students must achieve a grade point average of at least 2.00 in the cumulative GPA, UCM GPA, major, and minor (if applicable) GPA. Some degree programs require higher GPAs for graduation.

Specific Requirements for the Various Baccalaureates

BACHELOR OF ARTS

1. A major for this degree normally shall be 30-43 semester hours.
2. A modern language requirement shall be nine semester hours and may be met as follows:

The modern language requirement is fulfilled by successfully completing nine semester hours of one modern language, or completing six hours of one modern language and three hours of modern literature in translation (ENGL 2220), or completing three hours of an upper-level (or level three) modern language course.

Students with previous study of a modern language in high school may be eligible to enroll in the second or third level of language courses at UCM. Students who earn a grade of C or higher will earn validated credit for the lower level classe(s). See Department of Government, International Studies, and Languages Statement of Policy. For further information contact the chair of the Department of Government, International Studies, and Languages at 660-543-4780.

Students may alternately satisfy the B.A. Language Requirement and/or gain General Education Humanities credits by attaining a proficiency rating of Intermediate Mid on an ACTFL Oral Proficiency Interview (OPI). Non-native speakers of English are understood to fulfill the spirit of the requirement through their English coursework, provided that they can show proof of native proficiency in another language (Advanced proficiency rating on an OPI). Students wishing to fulfill the requirements in this way must pay for their own examinations. Contact Testing Services at 660-543-4919, for more information.

BACHELOR OF FINE ARTS

This is a professional performance degree available through the Department of Art and Design and the Department of Theatre and Dance.

1. A major for this degree normally shall be 61-88 semester hours.

BACHELOR OF MUSIC

This is a professional performance degree available through the Department of Music.

1. A major for this degree normally shall be 77-88.5 semester hours.

BACHELOR OF MUSIC EDUCATION

This is a professional education degree available through the Department of Music. Students planning to obtain teacher certification should see *Teacher Education Policies and Procedures* on page 88.

1. A major for this degree normally shall be 63.5-68.5 semester hours.
2. Professional education courses for this degree shall be 25-35 semester hours.
3. A candidate for this degree must have a minimum cumulative grade point average of 2.75 based upon total hours attempted, as well as a grade point average of 3.00 in specified content courses, and a grade point average of 3.00 and no grade below a C in designated professional education courses.
4. All students receiving this degree must obtain minimum scores on the area specialty test to be eligible for teacher certification (HB463). Not obtaining the prescribed minimum score does not preclude receiving the degree. *Teacher Education Policies and Procedures* on page 88 in this catalog.

BACHELOR OF SCIENCE

1. A major for this degree normally shall be 30-91 or more semester hours.
2. Candidates for this degree who are seeking teacher certification must satisfy teacher education certification standards. See B.S.Ed. degree requirements on next page and *Teacher Education Policies and Procedures* in this catalog (page 88).

BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

1. A major for this degree normally shall be 60-77 semester hours.
2. A minimum of 50 percent of the major hours must be earned at UCM.
3. Candidates for this degree must achieve a minimum cumulative grade point average of 2.25 for graduation (2.65 for accountancy majors and 2.40 for finance majors).

BACHELOR OF SCIENCE IN EDUCATION

Students planning to obtain teacher certification should see *Teacher Education Policies and Procedures* in this catalog (page 88).

1. A major for this degree shall be in a certifiable area and normally shall be 36-64 semester hours except in those instances where certification requirements exceed this amount.
2. A minor for this degree normally shall be 18-24 semester hours.
3. Professional education courses for this degree shall be 25-35 semester hours.
4. A candidate for this degree must have a minimum cumulative grade point average of 2.75 based upon total hours attempted, as well as a grade point average of 3.00 in specified content courses, and a grade point average of 3.00 and no grade below a C in designated professional education courses.
5. All students receiving this degree must obtain a minimum score on the appropriate exit test to be eligible for teacher certification (HB463). Not obtaining the prescribed minimum score does not preclude receiving the degree. Students with double majors in education normally must plan to take tests in both areas, over a two-semester period (this does not apply to dual certification students in Elementary Education Birth-3 and Grades 1-6).

BACHELOR OF SOCIAL WORK

This is a professional degree available through the Department of Communication Disorders and Social Work.

1. The major for this degree normally shall be 51 semester hours.
2. Candidates for this degree must earn a grade of C or better in all required major courses.
3. Candidates for this degree must successfully complete a 40-hour volunteer experience in a social service agency and a 500-hour field practicum experience.

Double Degrees

Students may earn more than one degree, if desired. This is often referred to as a double degree or dual degree program. The degrees can either be the same type (two B.S. degrees) or of different types (a B.F.A. and a B.S.E.). Students must meet the unique requirements of each degree (minors, specified General Education courses, etc.). There are no additional requirements for the double degree option. Each degree may be from a different catalog year, if needed.

Students may not earn a double degree with the same major or minors (e.g., students cannot earn both a B.A. and a B.S. degree with a history major). A minor used to satisfy a degree requirement for one degree may not be in the same subject as a major used in a different degree program if the two degrees are earned concurrently. The same minor may not count on more than one degree.

Majors

A major is a primary field of specialized study. UCM majors range from 30-88 credit hours. Majors are tied to specific degrees. Some majors may be offered with multiple degree programs. For example, the history major is available as both a B.A. degree or a B.S. degree. Find a listing of the majors offered by UCM on page 57 of this catalog. Students may declare, change or delete a major by meeting with their academic advisor.

General Requirements for a Major

1. A major must require a minimum of 30 semester hours.
2. A minimum of 15 semester hours of a major's program requirements must be completed through Central Missouri. Some majors require additional major hours at UCM for graduation.
3. A minimum of 12 upper-level hours must be included in a major program. At least nine of these 12 upper-level hours must be completed through Central Missouri.
4. Students must achieve a grade point average of at least 2.00 in the major. Some majors require higher major grade point averages for graduation.

Double Majors

Students may earn more than one major if desired. The two majors must be tied to the same degree type and the student must follow the curriculum from the same catalog year for each major. For example, a student can pursue a double major in management and marketing, as they are both B.S.B.A. degrees. Upon completion, the student earns two majors with one degree. Students must meet the unique requirements of each major. There are no additional requirements for the double major option.

Students pursuing a double major also have the option of completing a double degree. Each degree may be from a different catalog year, if needed. Students who wish to opt for the double degree will apply for graduation separately for each degree. Students must meet the unique requirements of each major. There are no additional requirements for the double degree option.

Minors

A minor is a secondary field of specialized study. UCM minors range from 15-34 credit hours. Some programs require minors as part of the degree program. See specific program requirements in this catalog. A minor may not be earned independently from a degree or added onto a transcript after graduation. Students may pursue more than one minor if desired. Students may not concurrently major and minor in the same subject area. Students may return to UCM and earn a major in a subject area in which a minor was previously earned. Find a listing of the minors offered by UCM on page 58 of this catalog. Students may declare, change or delete a minor by meeting with their academic advisor.

General Requirements for a Minor

1. A minor must require a minimum of 15 semester hours.
2. Although the university does not require the completion of a minor for a degree, many programs do require a minor. Carefully read the program requirements for specific majors.
3. A minimum of nine hours of a minor program must be completed through Central Missouri.
4. At least one upper-level hour must be included in the minor program and completed at Central Missouri.
5. Students must achieve a grade point average of at least 2.00 in the minor.

Undergraduate Certificates

An undergraduate certificate is a course of study in a specialized subject area. Certificate programs range from 12 to 21 credit hours. Some certificate programs may be completed in one semester. These programs range from 12-15 credit hours. Other certificate programs are one-year programs and contain between 16 and 21 credit hours. Find a listing of the undergraduate certificates offered by UCM on page 59 of this catalog.

A student pursuing an undergraduate certificate may seek admission to a degree program simultaneously or at a later date. Coursework used on a certificate may also be used towards an undergraduate degree. Students must earn a 2.00 or higher grade point average in the coursework required of the undergraduate certificate.

Course Overlap

In the instance of a double degree or double major program, courses required in both degrees or majors may count in both programs. In the instance of a major and minor or double minor, courses required in both may count in both programs. Limitations to this policy may be enforced by the departments. Refer to department information in this catalog for restrictions.

Students pursuing a double degree program where a minor(s) is required may not receive a major and minor in the same subject area. In addition, if both majors in a double degree program require minors, each must have a unique minor. Students completing a double major (one degree) do not need to complete a minor.



The General Education Program

The General Education Program at UCM is an essential component of all undergraduate degree programs. It provides a foundation allowing students to cultivate fundamental intellectual and practical skills. The requirements are designed to improve students' ability to communicate, think critically, solve real-world problems, and adapt to a changing world by learning to think in different contexts. General education cultivates social and civic responsibility to help students become lifelong learners and contributing members of society.

The philosophy of general education is not unique to UCM. UCM's General Education Program is based on a model developed by the Association of American Colleges and Universities (AAC&U) called *Liberal Education and America's Promise* (LEAP). LEAP is organized around essential learning outcomes for all students regardless of their chosen field of study. For more information on LEAP, see <https://www.aacu.org/leap>.

This philosophy is the foundation for UCM's General Education mission statement:

The General Education program at the University of Central Missouri serves student need and the public interest by ensuring students have strong foundational skills by providing a broad, enriched academic experience that both complements and supports their study within specialized disciplines.

The goals of the General Education Program are to provide students the opportunity to enhance the skills of the intellect; expand their knowledge, understanding, and appreciation of the arts, natural sciences, technology, social sciences, literature and the humanities; and contribute to the improvement of human interactions. These goals can best be accomplished through exposure to a common core of knowledge, as well as through the opportunity to select courses to accommodate individual interests. A common thread throughout the program components is our effort to provide students with required competencies by the Missouri Coordinating Board for Higher Education (CBHE). The CBHE competencies are divided into two parts: Skill Areas (Communicating, Higher-Order Thinking, Managing Information, Valuing) and Knowledge Areas (Social and Behavioral Sciences, Humanities and Fine Arts, Mathematics, Life and Physical Sciences).

General Education Outcomes and Competencies

Four outcomes and ten competencies establish the knowledge base and skills for all UCM graduates. The UCM General Education Program Outcomes and Competencies include:

Outcome 1: UCM graduates will demonstrate a mastery of intellectual and practical skills by

Competency 1: Writing with clarity and purpose using appropriate conventions of format, structure, and documentation.

Competency 2: Presenting and interacting effectively in public, group, and interpersonal settings.

Competency 3: Using mathematical and formal reasoning to perform analysis, determine reasonableness, and draw inferences.

Competency 4: Thinking creatively and critically.

Competency 5: Acquiring and managing information effectively through research and the uses of current and emerging technologies.

Outcome 2: UCM graduates will demonstrate knowledge of the world in which we live by acquiring

Competency 6: Knowledge and appreciation of literature, languages, and the arts using the standards of evidence and reasoning appropriate to the humanities and the arts.

Competency 7: Knowledge of the physical and natural world using the standards of evidence and reasoning appropriate to the sciences, mathematics, and technology.

Competency 8: Knowledge of the human experience using the standards of evidence and reasoning appropriate to history and the social/behavioral sciences.

Outcome 3: UCM graduates will demonstrate an understanding of individual and social responsibility by

Competency 9: Evaluating individual actions, intercultural relationships, and social choices within local/global frameworks using ethical reasoning, civic principles, and cultural values.

Outcome 4: UCM graduates will demonstrate the ability to integrate and apply skills, knowledge, and responsibility by

Competency 10: Creating a cumulative work that demonstrates the integration and application of knowledge in new settings.

Competency 10 is fulfilled by the major curriculum. It is not included in the 42-hour core of general education.

The 42-credit hours required in General Education will ensure students learn and practice the skills and knowledge of the ten competencies prior to degree conferral. Students will demonstrate their competency by successfully completing assignments and required courses, passing the General Education Assessment examination (see information below), and through completion of a capstone experience in the major.

Policies Concerning the General Education Program

The Faculty Senate General Education Committee is charged with the development and interpretation of policies concerning the General Education Program. Policies must conform to the Statement of Philosophy and General Goals of the General Education Program.

General Policies Governing General Education

The minimum number of required General Education semester credit hours for all students, regardless of their program of study, is 42. Some degree programs may require up to six additional hours of General Education depending on the math, science, and technology courses required.

Courses taken to fulfill General Education requirements may not be taken on the pass/fail basis. Students who have fulfilled all General Education requirements in a specific area may elect to take additional General Education courses as free elective hours in the same area on the pass/fail basis.

Placement and Prerequisites for General Education Classes

Placement into Writing I, Mathematics, and some Science courses is based on planned placement. See page 9 of this catalog for detailed information. Students who do not meet ACT/SAT score requirements for enrollment in such courses will be required to complete prerequisite coursework. Courses which require planned placement are marked with a "+" in the general education course listing.

Some Fine Arts courses may require an audition or placement assessment for enrollment. These courses are marked with an “^”.

United States and Missouri Constitutions Requirement

Missouri state law requirement, Section 170.011 RSMO Supp (1988) requires that all students at public Missouri institutions have a course that teaches the constitutions of Missouri and the United States. Find more information about this requirement at moga.mo.gov/statutes/c100-199/170000011.htm. The following courses in the UCM General Education program fulfill this requirement: HIST 1350 or 1351 and POLS 1510 or 2511 and are denoted with a “#” in the General Education course listing. These courses must be taken from institutions in the state of Missouri. Courses from out-of-state institutions which are articulated or substituted for these courses will not fulfill state law requirement Section 170.011 RSMO Supp (1988). Students who have one of these courses from out of state or who have already fulfilled all nine hours of Knowledge Area III in general education may fulfill this requirement by passing an exam on the constitutions of the United States and of Missouri offered by the Department of History and Anthropology (Wood 136, 660-543-4404).

Transfer Students and General Education

Transfer Students with a degree or the 42-hour core from Missouri institutions. Students who transfer to UCM with an Associate of Arts (A.A.) degree, an Associate of Arts in Teaching (A.A.T.) degree, or a bachelor’s degree from an appropriately regionally accredited institution in Missouri, or have met the Missouri 42-hour General Education Core requirements are considered to have met UCM’s 42-hour general education program, state law requirement Section 170.011 RSMO Supp (1988), and the nine general education competencies with the exception of any specific general education courses required by the student’s major/minor.

Transfer Students with a degree from out-of-state institutions. Students who transfer to UCM with an Associate of Arts (A.A.) degree, an Associate of Arts in Teaching (A.A.T.) degree, or a bachelor’s degree from an appropriately regionally accredited institution outside of the state of Missouri are considered to have met UCM’s 42-hour general education program and the nine general education competencies with the exception of any specific general education courses required by the major/minor and state law requirement Section 170.011 RSMO Supp (1988). These students must fulfill state law requirement Section 170.011 RSMO Supp (1988) by either successfully completing a course at UCM in General Education denoted with a “#” or by passing an exam on the constitutions of the United States and Missouri offered by the Department of History and Anthropology (Wood 136, 660-543-4404).

Transfer students without a degree or the Missouri 42-hour core. Students who transfer without a degree or the Missouri 42-hour core, or from a non-regionally accredited institution will have their courses evaluated on a course-by-course basis for UCM’s general education program. Courses from out-of-state institutions which are articulated or substituted for history or social/behavioral science courses that fulfill state law requirement Section 170.011 RSMO Supp (1988) will not fulfill this requirement. Students in this situation may fulfill this requirement by either successfully completing a course at UCM in the General Education denoted with a “#” or by passing an exam on the constitution of the United States and of Missouri offered by the Department of History and Anthropology (Wood 136, 660-543-4404).

Major Required General Education Classes

Some majors require specific General Education courses. Such courses are listed in this catalog for each program. Some major programs list required general education courses in the major hours, some list them in the general education hours, and some programs list required general education classes in both major and general education hours.

Should a student change majors or minors from a program that does not require specific General Education courses to a program that does, a student may have to take additional credit hours in one or more of the defined areas of the General Education program if she/he has not taken the specific General Education course listed as a major or minor requirement. This applies to transfer students as well, even if a prior degree or the Missouri 42 hour core has been completed.

Named Individualized Majors/Minors and General Education

Students who have been approved for a named individualized major or minor (does not include General Studies) may not count courses used to fulfill General Education in the named individualized major or minor.

General Education Assessment Policy

Assessment is a key process that is used in the academic, administrative, and student support services areas. Because the core process of higher education institutions is student learning, assessment at UCM serves three primary purposes: A) improvement of student learning and instruction, B) accomplishment of institutional mission, and C) accountability for achievement of educational goals. Central Missouri works hard to keep in contact with employers who hire UCM graduates. The one consistent message received from those employers, regardless of the type of enterprise, is that college graduates need to have a solid background in General Education.

This is one of the reasons the university has established a minimum score on a national test of General Education critical thinking and reading skills as a preparedness check for enrollment in upper-division courses as well as a condition for graduation. We want our students and the general public to know that we take our responsibility of preparing students to live and work as productive citizens in a diverse society very seriously. Central Missouri wants to ensure that every student is prepared for upper-division course work and that every student who graduates from our institution has a basic set of intellectual and reading skills in those areas defined by employers, educators and our culture as important.

All undergraduate students seeking a degree at Central Missouri, except teacher education majors and RN-BS Nursing majors, post-baccalaureate students (both from UCM and transfer institutions), and graduate students, as a condition for graduation, must:

- Take the General Education Assessment (GEA), the ETS Proficiency Profile in the semester after which a total of 45 credit hours have been earned to ensure the student has no delays in the student’s progress towards enrolling in upper-level courses.
- Pass the ETS Proficiency Profile by obtaining a minimum score of 425 (based on a scaled score of 400 - 500).
- Fulfill the General Education Assessment Policy no later than the semester after which a total of 75 credit hours have been earned to ensure the student has no delays in the student’s progress towards graduation.

Additional information on the ETS Proficiency Profile may be viewed at ets.org/proficiencyprofile/about.

An enrollment hold will be placed on a student's account for failing to take the General Education Exam the semester after which a total of 45 credit hours have been earned or for not fulfilling the General Education Assessment Policy the semester after which a total of 75 credit hours have been earned.

Students unsuccessful in obtaining the minimum total score of 425 (based on a range of 400 - 500) on the second attempt are required to meet with the Director of Testing Services. The meeting will focus on the student's needs, test-taking strategies, and specific interventions to help improve the student's knowledge and skills.

After three attempts, the student is required to meet with the Faculty Senate University Assessment Council subcommittee and the academic department chair of the respective discipline to discuss possible solutions/action.

Transfer Students and General Education Assessment

A transfer student (except teacher education majors) who has taken the Measure of Academic Proficiency and Progress (MAPP) exam, the Collegiate Assessment of Academic Proficiency (CAAP), or the College-BASE for General Education (CBGE) at another institution of higher learning may seek fulfillment of the General Education Assessment Policy.

- A valid score report must be on file in the Office of Testing Services, 660-543-4919.
- The score must have been obtained within the past 10 years.
- The score report must be sent directly from the previous institution to Testing Services. Most institutions require written consent to release a score report.
- A valid score report may be sent via mail to Testing Services, Humphreys 216, Warrensburg, MO 64093.
- The Director of Testing Services must review the valid score report to determine fulfillment of the General Education Assessment Policy.

Teacher Education Majors and General Education Assessment

Teacher Education Majors are required by the Missouri Department of Elementary and Secondary Education (DESE) to take and pass all sections of the Missouri General Education Assessment (MoGEA). This test is used for admission into undergraduate professional education programs at all Missouri colleges and universities, and includes sections on English language arts, writing, mathematics, science, and social studies. For more information about test dates, fees, and to register, please go to mo.nesinc.com. For information about required passing scores, please consult with your academic advisor (LOV 2160, 660-543-4888). Teacher education students are not eligible to take the Measure of Academic Proficiency and Progress (MAPP).

Admission to Degree Programs and General Education Assessment

Nursing Majors. Students seeking admission to the Nursing program are required to fulfill the university's General Education Assessment requirements as a condition for admission into the Nursing program and take the ACT-COMPASS placement exam. The General Education Assessment Policy does not apply to Registered Nurses seeking a B.S. in Nursing.

General Education Assessment Test Registration

Registration for the GEA is available in MyCentral. Click on the "Student Services" tab, then the "Register for a Test" link at the bottom right hand corner and then click on the test day and time of your choice. Complete the online registration process as directed. See ucmo.edu/testingervices for complete information on the General Education Assessment Policy and requirements.

Direct any questions concerning this policy to the Director of Testing Services, Humphreys 216, 660-543-4919, or testingervices@ucmo.edu.


The General Education Program Requirements

The minimum number of required General Education semester credit hours for all students, regardless of their program of study, is 42. Some degree programs may require up to six additional hours of General Education depending on the math, science, and technology courses required.

Courses taken to fulfill General Education requirements may not be taken on the pass/fail basis. Students who have fulfilled all General Education requirements in a specific area may elect to take additional General Education courses as free elective hours in the same area on the pass/fail basis.

Some General Education selections listed on these pages may be limited by major/minor choice. Check the major/minor listing in the catalog for specific General Education requirements within the major/minor.

A Guide to Symbols Used in General Education

- + Planned placement required for enrollment
- ^ Audition or placement assessment required for enrollment
- # Course fulfills state law requirement Section 170.011 RSMO Supp (1988) (US/Missouri Constitutions)
-  Course has environmental, economic, and/or social sustainability as a major objective.
- GE Denotes a general education course when listed in Sections I and II of this catalog.

Foundational Skills Areas 11 hours

Four courses must be taken to fulfill this area: one Writing I, one Writing II, one Managing Information, and one Communication course (see listing below). Some students may exceed the 11 credit hour minimum depending on course selection and major-required Managing Information courses.

- UCM graduates will demonstrate mastery of intellectual and practical skills by
- writing with clarity and purpose using appropriate conventions of format, structure, and documentation;
 - acquiring and managing information effectively through research and the uses of current and emerging technologies; and
 - presenting and interacting effectively in professional, group, and interpersonal settings.

Writing I - 3 credit hours

These courses fulfill General Education Competency 1.

Choose one course from the following:

- +ENGL 1020 Composition I..... 3
- +ENGL 1080 Advanced Composition*..... 3

+Eligibility for enrollment in this course is based on university planned placement guidelines. See page 9 of this catalog for more information.

*Students who earn a grade of C or higher in ENGL 1080 will be awarded an additional 3 hours of special credit (CR) for ENGL 1020 and will have fulfilled the six hours of writing requirement in general education. Students who earn a grade of D in ENGL 1080 may either opt to repeat the course or enroll in CTE 3060/ENGL 1030 to fulfill the six hours of writing requirement in general education.

Writing II - 3 credit hours

These courses fulfill General Education Competency 1.

Choose one course from the following*:

- CTE 3060 Technical Writing 3
- ENGL 1030 Composition II..... 3

*Students who earn a grade of C or higher in ENGL 1080 will be awarded an additional 3 hours of special credit (CR) for ENGL 1020 and will have fulfilled the six hours of writing requirement in the general education. These students will not have to enroll in CTE 3060 or ENGL 1030.

Managing Information - 2-3 credit hours

These courses fulfill General Education Competency 5.

Choose one course from the following:

- BTE 1210 Essentials of Managing Information 2
- CIS 1600 Business Information Management..... 3
- CTE 2000 Technology and Society 3
- GEOG 2300 Acquiring and Managing Spatial Infor..... 2
- LIB 1010 Truth, Lies, and Information Management. 2
- LIS 1600 University Library and Research Skills 2

Communication - 3 credit hours

These courses fulfill General Education Competency 2.

Choose one course from the following:

- COMM 1000 Public Speaking..... 3
- COMM 1050 Fund. of Oral Communication Competency 3
- PE 2472 Communicating Ideas on Sport..... 3
- THEA 1100 Oral Interpretation..... 3

Knowledge Areas 28 hours

Knowledge Area I 9 hours

Three courses must be taken to fulfill this area: one Literature, one Fine Arts, and one additional course (see listing below).

UCM graduates will demonstrate knowledge of the world in which we live by acquiring knowledge and appreciation of and/or participation in the creation or performance of literature, languages, and the arts using the standards of evidence and reasoning appropriate to the humanities and the arts.

Literature - 3 credit hours

These courses fulfill General Education Competencies 1 and 6.

Choose one course from the following:

- ENGL 2200 American Literature to 1865 3
- ENGL 2205 American Literature 1865 to Present 3
- ENGL 2210 British Literature to 1798 3
- ENGL 2215 British Literature from 1798 to Present..... 3
- ENGL 2220 World Masterpieces..... 3
- ML 2000 World Literatures in Translation..... 3

Fine Arts - 3 credit hours

These courses fulfill General Education Competency 6.

Take any combination of courses from the list below for a total of three credit hours. If the same one-hour course is taken more than once, all grades will count for each time attempted.

Choose three hours from the following:

ART 1800	Ideas and the Visual Arts.....	3
ART 1835	Global Arts and Culture.....	3
COMM 3000	Film Appreciation.....	3
DANC 2100	Dance Appreciation.....	3
MUS 1010	Symphonic Band.....	1
MUS 1055^	Collegiate Choir.....	1
MUS 1210	Experiencing Music.....	3
MUS 1220	The Evolution of a Popular Art: An Introduction to Rock Music.....	3
MUS 1281	History and Development of Jazz.....	3
MUS 3070^	Chamber Singers.....	1
MUS 3212^	Music History 1750-Present.....	3
MUS 4010^	Symphonic Wind Ensemble.....	1
MUS 4025^	University Symphony Orchestra.....	1
MUS 4050^	University Concert Choir.....	1
THEA 2400	Discovering Theatre.....	3

^Audition or placement assessment required for enrollment. Contact the Department of Music (UTT 111, 660-543-4530).

Additional Courses for Knowledge Area I - 3 hours

These courses fulfill General Education Competency 6.

Choose one additional course from the Literature or Fine Arts categories above or one course below from Languages or Humanities. If an additional Fine Arts course is chosen, it must be a three-credit hour course from the Fine Arts list above. The one-hour courses may not be used to fulfill this category if Fine Arts is selected for the "Additional Courses for Knowledge Area I".

Languages:

High school coursework completed or placement examination determines the level of a student's initial enrollment in elementary and intermediate foreign language courses. For more information contact the Department of Government, International Studies, and Languages at 660-543-8948.

CD 1401	American Sign Language I.....	3
CD 1402	American Sign Language II.....	3
CHIN 1701	Elementary Chinese I.....	3
CHIN 1702	Elementary Chinese II.....	3
FREN 1201	Elementary French I.....	3
FREN 1202	Elementary French II.....	3
FREN 2201	Intermediate French I.....	3
FREN 2202	Intermediate French II.....	3
GER 1301	Elementary German I.....	3
GER 1302	Elementary German II.....	3
GER 2301	Intermediate German I.....	3
GER 2302	Intermediate German II.....	3
ML 1040	Elementary Japanese I.....	3
ML 1040	Elementary Japanese II.....	3
SPAN 1601	Elementary Spanish I.....	3
SPAN 1602	Elementary Spanish II.....	3
SPAN 2601	Intermediate Spanish I.....	3
SPAN 2602	Intermediate Spanish II.....	3

Humanities:

COMM 1200	Introduction to Mass Communication.....	3
PHIL 1000	Introduction to Philosophy.....	3
PHIL 1410	Critical Thinking.....	3
WGS 1050	Women's Voices.....	3

Knowledge Area II.....10 hours

Three courses must be taken to fulfill this area: one Science with a Laboratory, one Mathematics, and one additional course (see listing below). Some students may exceed the 10 credit hour minimum depending on course selection and major-required science and mathematics courses.

UCM graduates will demonstrate knowledge of the world in which we live by acquiring knowledge of the physical and natural world using the standards of evidence and reasoning appropriate to the sciences, mathematics, and technology.

Science with a Laboratory - 4 credit hours

These courses fulfill General Education Competency 7.

Choose one course from the following:

BIOL 1003/1006*	Introduction to the Sciences: Ecology (3) with Environ. Science/Ecology Lab (1)	4
BIOL 1004**	Introduction to the Sciences: Ecology.....	4
BIOL 1005/1006*	Introduction to Environmental Sciences (3) with Environ. Science/Ecology Lab (1)	4
BIOL 1007	Plants and Society.....	4
CHEM 1104**	Introduction to the Sciences: Chemistry	4
CHEM 1131	General Chemistry I.....	5
EASC 1004	Introduction to Geology.....	4
EASC 1114***	Weather and Climate OR	
GEOG 1114***	Weather and Climate.....	4
PHYS 1101	College Physics I.....	4
PHYS 1104	Introduction to the Sciences: Physics.....	4
PHYS 2121	University Physics I.....	5

*Courses must be taken together in the same semester.

**Students who have earned credit in BIOL 1004 in the Science with a Laboratory category are not eligible for credit in BIOL 1003 in the Science without a Lab category. Students who have earned credit in CHEM 1104 in the Science with a Laboratory category are not eligible for credit in CHEM 1103 in the Science without a Lab category. Students who have earned credit in PHYS 1104 in the Science with a Laboratory category are not eligible for credit in PHYS 1103 in the Science without a Lab category.

***This course is offered by both EASC and GEOG. Credit for the course may only be earned once.

Mathematics - 3 credit hours

These courses fulfill General Education Competencies 3 and 7.

Choose one course from the following:

+MATH 1111	College Algebra.....	3
+MATH 1131	Applied Calculus.....	3
+MATH 1150	Pre-Calculus Mathematics.....	4
+MATH 1151	Calculus and Analytic Geometry.....	5
+MATH 1215	The Mathematics of Decision Making.....	3
+MATH 1300	Basic Statistics.....	3
+MATH 1620	Contemporary Mathematics.....	3
+MATH 1820	Introduction to Mathematical Modeling.....	3

+Eligibility for enrollment in this course is based on university planned placement guidelines. See page 9 of this catalog for more information.

Additional Courses for Knowledge Area II - 3 credit hours

These courses fulfill General Education Competency 7.

Choose one additional course from the Science with a Laboratory or Mathematics categories above or one course from the following:

ANTH 1810	Human Prehistory.....	3
BIOL 1003*	Introduction to the Sciences: Ecology.....	3
BIOL 1005	Introduction to Environmental Sciences.....	3
BIOL 2010	Human Biology.....	3
BIOL 2510	Basic Genetics.....	3
CHEM 1103*	Introduction to the Sciences: Chemistry.....	3
CMGT 3010	Applied Construction Practices.....	3
CS 1010	Introduction to Computer Science.....	3
CS 1030	Introduction to Computer Programming.....	3
GEOG 2100	Physical Geography.....	3
MUS 1450	Audio and Acoustics.....	3
PHYS 1103*	Introduction to the Sciences: Physics.....	3

*Students who have earned credit in BIOL 1004 in the Science with a Laboratory category are not eligible for credit in BIOL 1003 in the Science without a Lab category. Students who have earned credit in CHEM 1104 in the Science with a Laboratory category are not eligible for credit in CHEM 1103 in the Science without a Lab category. Students who have earned credit in PHYS 1104 in the Science with a Laboratory category are not eligible for credit in PHYS 1103 in the Science without a Lab category.

Knowledge Area III9 hours

Three courses must be taken to fulfill this area: one History, one Social/Behavioral Science, and one additional course (see listing below). Within the nine hours required in Knowledge Area III, all students must select a course which fulfills state law requirement Section 170.011 RSMO Supp (1988). These courses are marked with a “#”.

UCM graduates will demonstrate an ability to comprehend, evaluate, and analyze aspects of the human experience through an understanding of history and the social and behavioral sciences and the standards of evidence that create knowledge within those frameworks. Students will learn substantive content as well as the relevant evaluative process of reasoning, evidence, and argument.

The Constitutions of the United States and of Missouri Section 170.011 RSMO Supp (1988)

Within the nine hours required in Knowledge Area III, all students must select a course which fulfills state law requirement Section 170.011 RSMO Supp (1988). These courses are marked with a “#”. These courses must be taken from institutions in the state of Missouri. Courses from out of state institutions which are articulated or substituted for these courses will not fulfill state law requirement Section 170.011 RSMO Supp (1988). Students who have one of these courses from out of state or who have already fulfilled all nine hours of Knowledge Area III may fulfill this requirement by passing an exam on the constitutions of the United States and of Missouri offered by the Department of History and Anthropology (Wood 136, 660-543-4404).

History - 3 credit hours

These courses fulfill General Education Competency 8.


Choose one course from the following:

HIST 1350#	History of the U.S. to 1877.....	3
HIST 1351#	History of the U.S. from 1877.....	3
HIST 2400	History of the Early World.....	3
HIST 2401	History of the Early Modern World.....	3
HIST 2402	History of the Modern World.....	3

Social/Behavioral Sciences - 3 credit hours

These courses fulfill General Education Competency 8.

Choose one course from the following:

ANTH 2820	Anthropology of Food.....	3
CFD 1010	Individual and Family Relationships.....	3
CJ 1000	Introduction to Criminal Justice.....	3
ECON 1010	Principles of Macroeconomics.....	3
EDFL 2240	Educational Psychology.....	3
FAME 3434	Fashion History of Costume.....	3
GEOG 2101	Introduction to Sustainability.....	3
 GEOG 2212	World Geography.....	3
IS 1000	Introduction to International Studies.....	3
POLS 1500	Introduction to Politics.....	3
POLS 1510#	American Government.....	3
POLS 2511#	State Government.....	3
POLS 2530	World Politics.....	3
POLS 3522	Modern East Asia.....	3
PSY 1100	General Psychology.....	3
PSY 1320	Psychology of Personal Adjustment.....	3
PSY 4230	Psychology of Adolescence.....	3
SOC 1800	General Sociology.....	3
SOC 1830	Social Problems.....	3
SOWK 2600	Intro. to Social Welfare & Social Work.....	3
WGS 2000	Race, Class, and Gender.....	3

Additional Courses for Knowledge Area III - 3 credit hours

Choose one additional course from either the History or Social/Behavioral Sciences areas above.

Engagement 3 hours








One course from the listing below must be taken to fulfill this area.

UCM graduates will demonstrate an understanding of individual and social responsibility by evaluating individual actions, intercultural relationships, and social choices within local/global frameworks using ethical reasoning, civic principles, and cultural values.

Engagement (Individual and Social Responsibility) - 3 credit hours

These courses fulfill General Education Competencies 4 and 9.

Choose one course from the following:

AGRI 2130	Global Agriculture.....	3
 ANTH 1820	Cultural Anthropology.....	3
CIS 1612	Ethics in Information Technology.....	3
COMM 2000	Media Literacy.....	3
COMM 3340	Intercultural Communication.....	3
CS 1000	Computers and Modern Society.....	3
ECEL 2110	Diversity and Social Justice.....	3
 FAME 3442	Sustainability for Consumer Products.....	3
FIN 1820	Personal Finance.....	3
 GEOG 3101	Practicing Sustainability.....	3
 GEOG 3201	The Cultural Landscape.....	3
 HED 1100	Personal Health.....	3
HED 1200	Applied Nutrition for Healthy Living.....	3
HIST 2410	Introduction to Africana Studies.....	3
MUS 1225	Music of World's Cultures.....	3
 NUR 2200	Culture and Sustainability in Health.....	3
PE 1206	Lifetime Fitness.....	3
 PHIL 2300	Ethics.....	3
POLS 2535	Model United Nations.....	3
POLS 2581	Trial Advocacy.....	3
REL 1510	Exploring Religions.....	3
SAFE 2010	Practical Safety and Security.....	3
WGS 2050	Sexuality, Debate, and Action.....	3

Integration 1-3 hours in the major

Students will integrate the knowledge and skills from the general education program with major-specific content through a cumulative work or experience that demonstrates the ability to gather information, perform synthesis and analysis, and communicate in a technical and proficient manner.

Students will complete one of the courses listed below as prescribed by their major curriculum*. See the major section of this catalog for more information. These courses fulfill General Education Competency 10:

AGRI 4101	Agricultural Capstone Experience.....	3
ART 4221	Art Theory and Criticism.....	3
ART 4920	Methods of Teaching Art III.....	3
AT 4640	Senior Seminar in Athletic Training.....	2
ATM 4112	ATM Capstone Experience.....	3
AVIA 4999	Integrated Studies Capstone Experience.....	3
BIOL 4222	The Biological Perspective.....	3
CADD 4180	Industrial Design.....	3
CD 4803	Undergraduate Clinical Practicum II.....	3
CDM 4800	Integrated Emergency Management.....	3

CFD 4745	Senior Seminar.....	3
CHEM 3920	Communication Skills in Chemistry.....	3
CJ 4605	Senior Seminar in Criminal Justice.....	1
CMGT 4400	Construction Operations.....	3
COMM 4490	Senior Capstone Seminar.....	1
COMM 4690	Campaigns.....	3
COMM 4790	Senior Capstone.....	1
CS 4920	Senior Project.....	3
CTE 4022	Teaching/Administration Intern.....	3
D&N 4345	Senior Dietetics Seminar.....	3
ENGL 4240	Capstone in Literature.....	3
ENGT 4110	Engineering Technology Problem Solving.....	3
FAME 4445	Senior Seminar in Fashion & Apparel Merchandising.....	3
FLDX 4395	Student Teaching in Special Education.....	3
FLDX 4468	Student Teaching Secondary II.....	3
FLDX 4495	Student Teaching Elementary I.....	3
FLDX 4496	Student Teaching Elementary II.....	3
FLDX 4497	Student Teaching Middle School I.....	3
GISL 4244	Comparative Cross-Cultural Cinema.....	3
GRAP 4053	Production Analysis.....	3
HM 4845	Senior Seminar.....	3
HIST 4500	Senior Capstone in History.....	3
IGEN 3116	Creative Problem Solving.....	3
IS 4950	Senior Seminar.....	3
MATH 4233	The Scientific, Historical, & Sociological Impact of Mathematics.....	3
MATH 4645	Senior Projects in Actuarial Science & Statistics.....	3
MGT 4357	Organizational Policy and Strategy.....	3
MUS 4000	Special Projects.....	3
MUS 4060	Senior Recital.....	3
MUS 4310	Methods of Teaching Music.....	1
MUS 4430	Seminar in Music Technology.....	2
MUS 4514	Piano Pedagogy IV - Seminar.....	3
NET 4063	Network Support.....	3
NUR 4111	Socio-economic Factors Impacting Health.....	3
PE 4765	Internship.....	3
PHIL 4250	Special Projects in Philosophy.....	3
PHOT 4270	Portfolio.....	3
POLS 4601	Senior Seminar in Political Science.....	3
PSY 4110	Systems of Psychology.....	3
SAFE 4055	Safety Sciences Capstone Experience.....	3
SM 4980	Internship.....	3
SOC 4895	Senior Seminar in Public Sociology.....	3
SOWK 4661	Field Practicum Seminar.....	3
THEA 4400	Literature and History of the Theatre I.....	3

*Students pursuing a named individualized major program will have a course identified in their program of study to fulfill Competency 10 as determined by the faculty advisor who signs off on the program. Students pursuing the General Studies individualized major may complete any course with the IGEN prefix to fulfill Competency 10.

The Honors College Program

The Honors College offers an academic program specifically designed to enrich the knowledge base, skills, and educational experience of high achieving and exceptionally motivated undergraduate students. Students in the Honors College declare a major from among those offered by UCM's academic colleges and complete requirements specific to the Honors College. The Honors College curriculum is highly flexible and can be customized to meet the specific academic and career goals of individual students. Among many other benefits, students in the Honors College have unique access to Honors-designated course sections and interdisciplinary colloquia, and are provided with the support and resources needed to pursue advanced-level research and creative projects in their areas of academic interest.

Admission Criteria

The Honors College considers applications for admission from qualified high school graduates (minimum ACT score of 25 and a minimum cumulative high school GPA of 3.5), transfer students and current UCM students (minimum cumulative college GPA of 3.5).

Students interested in learning more about the Honors College are encouraged to visit the Honors College Web site:

ucmo.edu/thehonorscollege. Alternatively, prospective students may contact the Office of the Dean of the Honors College by phone, 660-543-4633 or email (thehonorscollege@ucmo.edu).

Students interested in applying to the Honors College should do so online at ucmo.edu/thehonorscollege/apply.

Features of the Honors College

Among other benefits, students in The Honors College enjoy:

- Early enrollment privileges
- Maximum program flexibility
- Honors-designated course sections
- Honors-only colloquia
- Internship opportunities
- Research resources and support
- Study abroad travel grant
- One-on-one advisement with the Dean
- Transcript recognition

Typically, Honors-designated course sections include:

- ECON 1010: Principles of Macroeconomics
- ENGL 1030: Composition II
- ENGL 1080: Advanced Composition
- LIS 1600: University Library and Research Skills
- MATH 1111: College Algebra
- PSY 1100: General Psychology
- SOC 1800: General Sociology

Required Honors Courses

HONR 3000	Honors Colloquium.....	2 credit hours
HONR 4000	Honors Project.....	4 credit hours

All honors students are required to complete HONR 3000 and HONR 4000. These courses are reserved solely for honor students and count as free choice electives towards the minimum hours for a degree. Not all majors require free choice electives, see major program in this catalog. For such majors, these hours will be in addition to minimum degree requirements.

HONR 3000 is an interdisciplinary course taught by selected faculty. Content varies from semester to semester. This course may be repeated for a maximum of six credit hours. Enrollment in HONR 3000 requires junior standing (60 earned hours) or approval of the Dean of the Honors College.

HONR 4000 is a capstone research or creative project pursued under the supervision of a UCM faculty advisor selected by the student. Enrollment in HONR 4000 requires senior standing (90 earned hours) or approval of the Dean of the Honors College. Additional information regarding the Honors Project can be found in "The Honors Project Brochure," available online:

ucmo.edu/thehonorscollege.

General Education Program Requirements

Students in the Honors College must fulfill the 42 hours of general education as outlined on pages 46-49 of this catalog. In addition to the course choices listed on those pages, honors students have the flexibility to choose alternative courses in some of the areas as approved by the Dean of the Honors College. In areas where majors require specific general education courses, alternative options may not be selected. See individual major requirements in this catalog.

Acceptable changes to the general education curriculum as outlined on pages 46-49 typically consist of upper-level coursework (3000/4000 level) in the same course same prefix areas. For example, instead of choosing one of the five HIST courses available for the History requirement in Knowledge Area III (page 48), honors students could opt for a 3000 or 4000 HIST class, with prior permission.

Honors students should consult with the Dean of the Honors College (660-543-4633, JCKL 1450) prior to selecting courses.

There are a few differences in the general education program outlined on pages 46-49 for students in the Honors Program.

Writing I and II. Honors students with an ACT English score of 26 or above are strongly encouraged to enroll in ENGL 1080. Students who earn a grade of C or higher in ENGL 1080 will be awarded an additional 3 hours of special credit (CR) for ENGL 1020 and will have fulfilled the six hours of writing requirement in the general education. Students who earn a grade of D in ENGL 1080 may either opt to repeat the course or enroll in CTE 3060/ENGL 1030 to fulfill the six hours of writing requirement in the general education.

Knowledge Area I. In the regular general education (for non-honors students), this area is comprised of nine credit hours: literature, fine arts, and a third choice. Within these nine hours, honors students are required to take a literature class and two semesters (6 hours) of a single modern foreign language (placement policy applies). The three extra hours of modern foreign language take the place of the Fine Arts requirement.

Honors Course Substitutions

Each participant in the Honors College will be required to conform to the policy guidelines of the Honors College and the General Education Program. Please be aware that Honors choices consist of those courses permitted on the major/minor programs or in the General Education Program requirements. In areas where majors require specific general education courses, alternative options may not be selected. See individual major requirements in this catalog. The Dean of the Honors College must pre-approve exceptions or departures from any established curriculum requirements.

THE HONORS COLLEGE RETENTION POLICY

The Honors College requires its members to maintain a cumulative GPA of 3.25. Additionally, all members are required to demonstrate “satisfactory progress” completing The Honors College Program.

- Freshmen entering the Honors College who do not maintain a 3.25 cumulative GPA after two semesters will be dropped from the Honors College.
- Transfer students and students entering the Honors College after their freshman year who do not maintain a 3.25 cumulative GPA will be dropped from the Honors College.
- Students dropped from the Honors College for not maintaining a 3.25 cumulative GPA may apply for reinstatement when they have achieved a 3.25 cumulative GPA.
- Students in the Honors College are expected to make “satisfactory progress” completing the Honors College Program. By the time Honors students have reached 60 credit hours, they must have completed six credit hours of one foreign language. At 60 credit hours, students must also discuss their Honors Project ideas with the Honors College office. The Honors Project Proposal should be on file in the Honors office by the end of the student’s junior year.
- If a student fails to meet the appropriate GPA level required by the Honors College and/or fails to make satisfactory progress completing the Honors College Program, the student will no longer be eligible to participate in the Honors College.
- Honors students not currently enrolled at UCM will be dropped from the Honors College (unless they notify the office that they are studying abroad, etc.). Upon returning to UCM, students in good standing may request reinstatement in the Honors College.

For more information contact:

The Honors College
James C. Kirkpatrick Library 1450
University of Central Missouri
Warrensburg, MO 64093
Phone: 660-543-4633
Fax: 660-543-8550
Email: thehonorscollege@ucmo.edu
Website: ucmo.edu/thehonorscollege

Additional Academic Opportunities

Open Option Program

UCM openly welcomes students who are undecided and want to keep their options open. Students who are unsure about what academic program best fits them may choose to be an Open Option student. This program is intended to ensure students are progressing toward the completion of a degree while they are actively exploring their academic options. Some of the services available to assist Open Option students are:

- **Specialized Assistance in Academic Advising.** Career Counselors in the Gateway Center will aid students in selecting courses to keep them progressing toward graduation, even though they are unclear about their academic direction.
- **Individualized Career Counseling.** Career Counselors are available in the Gateway Center to help students explore their options, narrow their focus, and methodically make a major decision. The Career Counselors will utilize today's most valid and reliable resources available to assist students with their decision-making process.
- **Exploring Majors and Careers (AE 1410).** This is a one-credit-hour student-development course designed to introduce students to a wide range of college majors and career options. Special emphasis is given to an exploration of self through the use of career assessments and individual career counseling sessions, as well as individual and group activities, discussions, and interviews specifically designed to expose and educate the student about career options and the academic programs that lead to those options.
- **Majors Fairs.** Faculty representatives from every academic department on campus gather to present information about their programs twice each semester. Any student may attend a Majors Fair to learn about the various opportunities available at UCM. Faculty address topics such as course work required, accreditation, job opportunities, career outlook, what past graduates are doing, and answer student questions about their academic programs.
- **Informational Interviewing and Job Shadowing.** Career Development Coordinators in the Career Services Center have access to over 8,000 individual employer and alumni contacts that can be utilized by students to learn more about specific career paths and the desired academic programs that lead to those options.

The Open Option program is not designed to be a long-term academic status or program. It is designed to be a bridge between being unsure and confidently deciding on an academic program. At UCM, we are committed to helping every student make continuous and steady progress toward graduation, and to successfully graduate in a program best suited to him/her as an individual. To that end, the following rules apply to individuals who choose to be Open Option students:

- **First-Time, Full-Time Students (FTFT).** FTFT students will be enrolled in AE 1410, Exploring Majors and Careers, and will need to reach a decision/declare their major by the time they have earned 30 credit hours, or before enrolling in their third semester (whichever comes first).
- **Continuing Students.** Continuing students, who are in an academic program and have determined that program to no longer be a fit, may change their status to Open Option. Students in this category with more than 30 credit hours will need to decide on an academic program prior to their enrollment in the semester following their decision to change their status to Open Option. Students with less than 30 credit hours earned should refer to the FTFT rules above.*
- **New Transfer Students and Readmitted Students.** New students transferring in to UCM, as well as UCM students, who are coming

back after a break in their college career, may choose to enter UCM as Open Option students. Students in this category with less than 30 credit hours earned should refer to the FTFT rules. Students in this category with more than 30 credit hours earned, will need to decide on an academic program during their first semester, prior to their enrollment for the subsequent semester.*

By taking active steps to explore and decide on a major before accumulating more than 30 hours of credit, students greatly improve their chances of making timely progress toward graduation.

*All Open Option students with more than 30 hours of credit must meet with a Career Counselor in the Gateway Center and complete a "Major Exploration Contract." This one-semester, non-renewable contract must be completed prior to enrolling in courses and/or receiving financial aid.

For more information about the Open Option Program at UCM, or to make an appointment with a Career Counselor, students should contact the Gateway Advising & Major Exploration Center (WDE 1900, 660-543-4721).

Pre-Professional Education

UCM programs take an active role in preparing students for admission to professional schools in the following areas:

- Medicine
- Dentistry
- Veterinary Medicine
- Physical Therapy
- Occupational Therapy
- Optometry
- Pharmacy
- Chiropractic Medicine
- Physician's Assistant
- Engineering
- Molecular Biology/Molecular Technology

Students wishing to pursue pre-professional programs are assigned to an appropriate faculty advisor whose job it is to mentor the advisees:

- by helping them plan and prepare a program of study,
- by assisting them to prepare for appropriate post-baccalaureate admissions tests, e.g., MCAT, DAT, GRE, administered by national agencies. The faculty advisor shares pertinent information and resources of such tests, i.e., topics covered in the tests with the advisee. Many professional schools use the results of such tests as important criteria for admission.
- by emphasizing the importance of General Education in analytical and critical thinking, which is also evaluated in the written portions of some post-baccalaureate admission tests.
- by communicating the competitive nature of admission to the professional schools and the necessity of an "achiever's attitude" in the classroom.
- by providing student handbooks which summarize the admissions process to a professional school, e.g., *The Pre-Med Handbook*.
- by sponsoring student clubs in pre-professional fields (e.g., The Para-Medico Club, The Pre-Vet Club, The Tri-Beta Honor Society, etc.), and coordinating meetings between student organizations and professional school admissions officers.
- by encouraging hands-on student participation in profession-related work outside the classroom (e.g., volunteering or working

in a health care facility).

- by polishing the communication skills of student applicants for professional school interviews.

In addition, programs offer courses and research opportunities in many contemporary branches of the sciences, e.g., molecular biology, physiology, microbiology, cell biology, and biochemistry. These courses and research experiences provide students with the necessary investigative and critical thinking skills to prepare them for advanced degree programs, or as entry-level scientists in the pharmaceutical and biotechnology industries.

Pre-Law

While the American Bar Association does not recommend any particular undergraduate major to prepare for law school, a student should major in an area that is both personally satisfying and that provides the basic skills necessary to be successful in law school.

Students interested in preparing for law school should consult a pre-law advisor from the following list:

- Dane C. Miller, Criminal Justice Department
- Steven Popejoy, School of Accountancy and Computer Information Systems
- Don Wallace, Criminal Justice Department
- Jim Staab, Department of Government, International Studies, and Languages

These advisors assist students in choosing courses and/or professors that will assist in developing the following skills and values:

- Analytical and Problem-Solving Skills
- Critical Reading Abilities
- Writing Skills
- Oral Communication and Listening Skills
- Research Skills
- Organizational Abilities and Management Skills
- Valuing Service to Others and Promoting Justice

Individualized Majors and Minors

Individualized majors and minors allow students to create an academic program that is personalized to meet their educational and career goals. Students may request an individualized undergraduate major or minor not listed in the *Undergraduate Catalog*, but consisting of courses offered herein. An individualized major or minor may include coursework across various disciplines, but must satisfy all of the following:

- All General Education Program requirements must be met.
- All university minimum requirements for a baccalaureate degree must be met.

The students' program includes a signed statement indicating they accept full responsibility for the proposal and understands that the individualized program may not be accepted or recognized by institutions other than UCM. Upon final approval of the individualized major or minor program, the student is notified by the Associate Provost's Office and a copy of the approved program is filed with the Registrar's Office.

UCM offers two types of individualized major and minor programs: Named programs and a General Studies program. The two programs have some curricular differences explained below.

Types of Individualized Majors and Minors

1. **Named Individualized Major or Minor.** Some examples of named programs are: "Art History"; "Criminal Psychology". The diploma and transcript will read, for example: Art History: Individualized Major. The following criteria must be met for a

named individualized major or minor:

- Must include a minimum of 40 credit hours and Named individualized minors must include a minimum of 20 credit hours.
- Course work used to fulfill General Education requirements may not be included in the named individualized major or minor hours.

2. **General Studies Individualized Major or Minor.** The General Studies major is intended to serve as a degree completion program for students with advanced earned hours. The diploma and transcript will read, for example: General Studies: Individualized Major. General Studies is not available as a double or second major or minor. The following criteria must be met for a General Studies major or minor:

- Students may only declare a General Studies major or minor after earning 85 cumulative credit hours
- A General Studies major must contain a minimum of 43 credit hours. A General Studies minor must contain a minimum of 21 credit hours.
- The General Studies major is comprised of four areas: Arts and Humanities (12 hours, 3 upper level), Social and Behavioral Sciences (9 hours, 3 upper level), Science, Technology, and Mathematics (10 hours), and a Concentration Area (12 hours, 6 upper level).
- Overlap with General Education is allowed in this program with the exception of courses used to fulfill the core writing competency requirements (ENGL 1020, ENGL 1030, ENGL 1080, CTE 3060) and courses used to complete the mathematics requirement of the General Education Program.
- Students in major programs that require a minor and are interested in the General Studies minor will work with an academic advisor to create a 21-credit-hour minor plan.

How to Declare an Individualized Major or Minor

1. **Named Individualized Major or Minor.** The student must select a faculty member to serve as a mentor to develop a proposed plan of study. The faculty member must be from the college where the majority of the courses in the individualized major or minor were taken. After the plan is created with a faculty member, it must also be approved by the department chair, the dean of that college, the Office of the Registrar, and the Associate Provost for Academic Programs (in this order).

2. **General Studies Individualized Major or Minor.** Only students with at least 85 earned hours will be considered for a major in General Studies. Applications for a minor in General Studies will only be considered for students pursuing majors which require a minor. Students who are currently in a declared major at UCM must meet with their current major department chair for an exit interview. After this interview, the student will meet with an academic advisor in the Office of Extended Studies (HUM 410, 660-543-4984) to develop the General Studies major or minor plan. Students who are undecided or do not have a declared major are not required to complete an exit interview. After the plan is created with an academic advisor, it must also be approved by the Office of the Registrar and the Associate Provost for Academic Programs (in this order).

For more information about individualized major and minor programs, students should contact the Office of the Associate Provost for Academic Programs (ADM 203, 660-543-4116).



International Study

UCM believes strongly in the development of an international perspective among its students and faculty. One of the most exciting educational experiences available is the opportunity for students to spend a semester, year, or a summer studying abroad. More information about Study Abroad programs can be obtained from the International Center in Elliott Union 302. Students can visit ucmo.edu/studyabroad or call 660-543-4195.

General Information about Study Abroad

1. Students interested in attending school in another country while earning credit at UCM are encouraged to visit the International Center and inquire about UCM Study Abroad programs. Placement opportunities exist in approximately 300 institutions in over 65 countries.
2. Students who plan to study on a UCM-sponsored Study Abroad program may elect to take the courses completed abroad as pass/fail or letter grade credit. If the student elects to take these courses for pass/fail credit, they must provide written notification to the Study Abroad staff in the International Center before beginning the Study Abroad program.
3. Study Abroad credits taken as pass/fail do not count toward the university maximum of nine pass/fail credit hours allowed towards an undergraduate degree.
4. Students must maintain a full-time course load at UCM and at the host university while participating in Study Abroad.
5. Students participating in a Study Abroad program, when permitted to withdraw from a course, will not receive any refund.

Study Abroad Application Process

The following is the application process for Study Abroad through a UCM-sponsored program.

1. Fill out the Study Abroad application available at ucmo.edu/studyabroad, and turn it in to the International Center in Elliott Union 302. Deadlines are posted on the application form.
2. Apply for a passport if the student does not have one. All Study Abroad students need a valid passport before leaving the United States.
3. Meet with academic and departmental advisors about courses to take while abroad and acceptable grading options for major/minor work.
4. Turn in supporting application materials. These include: two academic recommendations, a statement of purpose, official transcript, application fee, and four passport-sized photos.
5. Complete a host university application and return it to the International Center.
6. Once accepted to Study Abroad, the student will receive a letter of acceptance from UCM and the host university.
7. Attend the mandatory Study Abroad Orientation held each fall and spring semester.
8. Purchase airline ticket to host country (only after the letter of acceptance has been received).
9. Attend a visa workshop to learn how to apply for a visa to the host country, and begin application process.
10. Complete orientation forms and return them to the International Center.

The following programs are some of the many available through the International Center:

Canada, Chicoutimi, Quebec
uqac.ca

The Université du Québec à Chicoutimi's French language immersion program allows students to gain greater proficiency while living and studying in Quebec, Canada. Students may choose from Fall, Spring, or Summer programs.

China, Beijing University of Technology
bjut.edu.cn/bjut_en/index.jsp

Chinese language courses are taught on a semester or year-long basis at BJUT. Business courses taught in English may also be taken by UCM students while studying Chinese language and culture.

Croatia, Zagreb zsem.hr

Zagreb School of Economics and Management is an AACSB International accredited school of business, economics and finance. Courses are taught in English by European professors.

France, Angers. univ-angers.fr

University of Angers is the prime location for UCM students to pursue French language studies. Additional courses are available in history, geography, tourism, biology, ecology, computer science, mathematics, and business administration.

France, Lyon esdes.fr

The Catholic University of Lyon School of Business and Management offers international business courses taught in English and French. Classes include marketing, business law, finance, human resources, the European Union, and French art and architecture.

France, INSEEC inseec-france.com

This institution is an AACSB International accredited business school system located in Bordeaux, Lyon and Paris. Classes are conducted in English and French.

Germany, Bremen uni-bremen.de

At the University of Bremen courses are offered in language and cultural studies, economics, human and health sciences, mathematics, computer sciences, and social studies. Courses are taught in German and English.

Germany, European Business School ebs.edu

Business and Aviation courses are taught in English for the UCM student attending EBS.

Ghana, Legon
umsl.edu/services/abroad/universities/ghana.html

Each fall semester Missouri students may attend classes in a variety of subjects taught in English at the University of Ghana on the western coast of Africa.

Globalinks globalinksabroad.org

This organization offers study sites throughout Oceania (Australia, New Zealand, and Fiji) for semester, summer, year-long programs, or internships abroad. Students in all majors may apply to study for programs, all of which are taught in English.

Greece, Athens acg.edu

The Missouri-Greece Program provides a unique spring semester study opportunity in ancient Athens. Students may choose from over 1,000 courses in a variety of disciplines at Deree University. A summer archaeological dig is also available.

Hungary, Budapest bke.hu

Corvinus University of Budapest offers courses in business administration, economics, food science, horticulture, landscape architecture, public administration and social sciences.

International Student Exchange Program (ISEP) isep.org

Students may study in over 35 countries in a variety of academic areas with language studies or courses taught in English.

International Studies Abroad (ISA) studiesabroad.com

This organization specializes in programs offered in Spanish-speaking countries, but also provides study in Belgium, Italy and Morocco among others. Internship and volunteer opportunities are also available.

Italy, Florence accademiaeuropeafirenze.it

The Accademia Europea di Firenze is an Italian Language, Music, Art and Culture school located in the center of Florence, Italy. Students may choose from fall, spring, year-long or summer programs. AEF courses are taught in English, and they have many elective courses in literature, history, politics and economics to complement course in the Fine and Performing Arts, as well as fashion and design.

Japan, Osaka kansaigaidai.ac.jp/asp

Kansai Gaidai University offers courses in business, political science, psychology, history and art. Japanese language and culture studies are available in addition to courses taught in English.

Japan, Osaka andrew.ac.jp/english

Momoyama Gakuin University offers courses taught in English in history, economics and business. Japanese language and cultures studies are also offered.

Mexico, various sites itesm.edu

Over 30 campuses located throughout Mexico are part of the Tecnológico de Monterrey system. Courses include Mexican culture, business, nursing and tourism. Special summer programs and internships are available.

The Netherlands, Eindhoven w3.tue.nl/en

Eindhoven University of Technology provides courses in safety science, industrial hygiene, industrial management, engineering, architecture, mathematics and computer science.

New Zealand, Auckland unitec.ac.nz

Unitec offers scenic study surroundings in architecture and design, fine art and studio art, the sciences, business, health and environmental sciences, and applied technology.

Norway, Oslo hio.no

The Oslo University College provides courses taught in English in the areas of business administration, engineering, fine art, design, drama, health sciences, media studies, social sciences and teacher education.

Poland, Łódź iso.uni.lodz.pl

Courses taught in English at the University of Łódź include biology, economics, sociology, geography, international studies, political science, management, physics, chemistry, mathematics and computer science.

South Korea, Daejeon cnu.ac.kr

Chungnam National University offers Korean language and culture courses to UCM students, which are taught in English. Daejeon and CNU are centrally located on the Korean peninsula, allowing easy travel to various cities throughout South Korea.

South Korea, Hankuk University hufs.ac.kr/user/hufsenglish/

Language and culture course offerings to UCM students for a semester are available at Hankuk. Courses in a variety of majors are available to the non-Korean speaking student.

South Korea, Sangmyung University english.smu.ac.kr/eng/index.do

Korean language courses may be taken at Sangmyung, recognized for its education and human resources. Other courses are available instructed in English.

South Korea, Seoul english.uos.ac.kr

At University of Seoul students may conduct studies in Asian culture, Korean language and history, business, political science and globalization. Non-Korean language courses are taught in English.

Spain, Alcalá institutofranklin.net/en/academic-programs/hispanic-studies

The University of Alcalá provides personalized language study courses for UCM students. Areas of study specific to the school are the humanities, computer science, law, medicine, and environmental studies.

Spain, Alcalá ucmo.edu/international/ctss

The Consortium for Transatlantic Studies and Scholarship Program in Alcalá, Spain, allows students to take courses in English while studying with other students from the U.S. Courses taught are primarily in the humanities and social sciences.

Sweden, Halmstad hh.se/english.5_en.html

Halmstad University is a high-tech, modern campus providing instruction in business and economics, construction engineering, computer systems, English, environmental studies, mathematics, political science, sports science, teacher education and Swedish language studies.

Sweden, Linnaeus University lnu.se/?l=en

This university offers courses in Växjö and Kalmar in several major areas of study including international studies, education, international business, computer science, psychology, management, economics, science and technology.

Sweden, Örebro oru.se/english

Historic Örebro University offers English instruction for courses in business, communication, education and social work.

Thailand, Bangkok University bu.ac.th/th/index_en.php

Courses are offered in entrepreneurship, marketing, graphics and multimedia, hotel and tourism, and communications. Language and culture classes are also available for study.

United Kingdom, Buckinghamshire, England bucks.ac.uk

Buckinghamshire New University offers courses in the social sciences, arts and humanities. Theatre, studio and graphic arts, and literature are special focuses of the institution for full-year study.

United Kingdom, London, England <http://programs.capa.org/mlp>

The Missouri-London Program is located in the Kensington area of London and offers courses during the semester or summer in humanities, business, and social sciences. Individualized internships are also available.

United Kingdom, Pontypridd, Wales southwales.ac.uk

The University of South Wales provides studies in communication, criminology, history, art, tourism and business for students interested in full-year study.

United Kingdom, Preston, England uclan.ac.uk

In northern England, the University of Central Lancashire provides full-year or spring semester studies in health sciences, sport science, fire science, business, and social sciences.



Degree/Major Programs

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

A degree is a formal title conferred upon an individual for the completion of a program of study. Undergraduate degrees are called baccalaureate or bachelor's degrees. A baccalaureate degree must total a minimum of 120 semester hours. Some degree programs require more than 120 semester hours.

A major is a primary field of specialized study. Majors are tied to specific degrees. Some majors may be offered with multiple degree programs. For example, the history major is available as both a B.A. degree or a B.S. degree.

ACCOUNTANCY, B.S.B.A. (123 hours)
 ACCOUNTANCY, B.S.B.A. and M.A. Accelerated (150 hours)
 ACTUARIAL SCIENCE AND STATISTICS, B.S. (120 hours)
 AGRICULTURAL SCIENCE, B.S. (120 hours)*
 ART, B.S.Ed. (127 hours)
 ATHLETIC TRAINING, B.S. (120 hours)
 AUTOMOTIVE TECHNOLOGY MANAGEMENT, B.S. (120-122 hours)
 AVIATION MAINTENANCE MANAGEMENT 2+2, B.S. (120-121 hours)
 AVIATION MANAGEMENT, B.S. (120 hours)
 BIOCHEMISTRY, B.S. (120 hours)
 BIOLOGY, B.S.Ed. (124 hours)
 BIOLOGY, B.S. (120 hours)
 CAREER AND TECHNOLOGY TEACHER EDUCATION, B.S.Ed. (120-123 hours)
 CHEMISTRY, B.S.Ed. (122 hours)
 CHEMISTRY, B.S. (120 hours)
 CHILD AND FAMILY DEVELOPMENT, B.S. (120 hours)
 COMMUNICATION STUDIES, B.S. (120 hours)
 COMPUTER INFORMATION SYSTEMS, B.S.B.A. (120 hours)
 COMPUTER SCIENCE, B.S. (120 hours)
 CONSTRUCTION MANAGEMENT, B.S. (126 hours)
 COOPERATIVE ENGINEERING 2-2 Transfer Agreement (65 hours)
 CRIMINAL JUSTICE, B.S. (120 hours)
 CRIMINAL JUSTICE, B.S. and M.S. Accelerated (140 hours)
 CRISIS AND DISASTER MANAGEMENT, B.S. (120 hours)
 DESIGN & DRAFTING TECHNOLOGY, B.S. (120 hours)
 DIGITAL MEDIA PRODUCTION, B.S. (120 hours)
 DIETETICS, B.S. (120 hours)
 EARTH SCIENCE, B.S.Ed. (120-122 hours)
 ECONOMICS, B.S.B.A. (120 hours)
 ELECTRONICS TECHNOLOGY, B.S. (120 hours)
 ELEMENTARY EDUCATION EARLY CHILDHOOD BIRTH - GRADE 3, B.S.Ed. (123-127 hours)
 ELEMENTARY EDUCATION GRADES 1-6, B.S.Ed. (122 hours)
 ENGINEERING TECHNOLOGY, B.S. (120-123 hours)
 ENGLISH, B.A. (120 hours)
 ENGLISH, B.S.Ed. (120 hours)
 ENTREPRENEURSHIP AND SOCIAL ENTERPRISE, B.S.B.A. (120 hours)
 FASHION: TEXTILES AND CLOTHING IN BUSINESS, B.S. (120 hours)
 FINANCE, B.S.B.A. (120 hours)

FORENSIC CHEMISTRY, B.S. (120 hours)
 GENERAL STUDIES, B.A. (120 hours)
 GENERAL STUDIES, B.S. (120 hours)
 GRAPHIC TECHNOLOGIES, B.S. (120 hours)
 GRAPHIC DESIGN, B.F.A. (123 hours)
 HEALTH STUDIES, B.S. (120 hours)
 HISTORY, B.A. (120 hours)
 HISTORY, B.S. (120 hours)
 HOSPITALITY MANAGEMENT, B.S.B.A. (120 hours)
 HOTEL AND RESTAURANT ADMINISTRATION, B.S. (120 hours)
 INNOVATIVE TECHNOLOGIES, B.S. (120 hours)
 INTERIOR DESIGN, B.F.A. (124 hours)
 INTERNATIONAL STUDIES, B.A. (120 hours)
 MANAGEMENT, B.S.B.A. (120 hours)
 MARKETING, B.S.B.A. (120 hours)
 MATHEMATICS, B.S.Ed. (120 hours)
 MATHEMATICS, B.S. (120 hours)
 MATHEMATICS, B.S. and M.S. Accelerated (140 hours)
 MEDICAL TECHNOLOGY, B.S. (122-126 hours)
 MIDDLE SCHOOL-JUNIOR HIGH SCHOOL, B.S.Ed. (120 hours)
 MODERN LANGUAGES, B.A. (120 hours)
 MUSIC EDUCATION, B.M.E. (126.5-127.5 hours)
 MUSIC, B.A. (120 hours)
 MUSIC, B.M. (120-122.5 hours)
 MUSICAL THEATRE, B.F.A. (120 hours)
 NURSING, B.S. (120 hours)
 NURSING (RN-BS), B.S. (120 hours)
 OCCUPATIONAL EDUCATION, B.S. (120 hours)
 OCCUPATIONAL SAFETY AND HEALTH, B.S. (120 hours)
 PHILOSOPHY, B.A. (120 hours)
 PHYSICAL EDUCATION, B.S. (120-122 hours)
 PHYSICS, B.S.Ed. (120-122 hours)
 POLITICAL SCIENCE, B.A. (120 hours)
 POLITICAL SCIENCE, B.S. (120 hours)
 PROFESSIONAL PHOTOGRAPHY, B.S. (120 hours)
 PROFESSIONAL PILOT, B.S. (120 hours)
 PSYCHOLOGY, B.A. (120 hours)
 PSYCHOLOGY, B.S. (120 hours)
 PUBLIC RELATIONS, B.S. (120 hours)
 RADIOLOGIC TECHNOLOGY, B.S. (127 hours)
 SAFETY MANAGEMENT, B.S. (120 hours)
 SOCIAL STUDIES, B.S.Ed. (121-124 hours)
 SOCIAL WORK, B.S.W. (120 hours)
 SOCIOLOGY, B.A. (120 hours)
 SOCIOLOGY, B.S. (120 hours)
 SPECIAL EDUCATION, B.S.Ed. (120 hours)
 SPEECH COMMUNICATION AND THEATRE, B.S.Ed. (126-132 hours)
 SPEECH-LANGUAGE PATHOLOGY, B.S. (120 hours)
 SPORT MANAGEMENT, B.S. (120 hours)
 STUDIO ART, B.F.A. (123 hours)
 SYSTEMS ENGINEERING TECHNOLOGY, B.S. (120 hours)
 TECHNOLOGY (Transfer Program), B.S. (120-122 hours)
 THEATRE, B.A. (120 hours)
 THEATRE, B.F.A. (120 hours)

**NOTE: This program is pending approval from the Missouri Department of Higher Education (MDHE).*

Minors, Certificates, and Other Academic Programs

MINORS

A minor is a secondary field of specialized study. UCM minors range from 15-34 credit hours. Some programs require minors as part of the degree program. See specific program requirements in this catalog. A minimum of nine hours of a minor program must be completed through UCM. At least one upper-level hour must be included in the minor program and completed through UCM. A minor may not be earned independently from a degree or added onto a transcript after graduation. Students may pursue more than one minor if desired. Students may not concurrently major and minor in the same subject area. Students may return to UCM and earn a major in a subject area in which a minor was previously earned. Learn more about minors on page 41 of this catalog.

ACCOUNTANCY (21 hours)
 ADMINISTRATIVE SUPPORT (16 hours)
 AFRICANA STUDIES (21-22 hours)
 AGRICULTURE (24 hours)
 ANTHROPOLOGY (20 hours)
 ART (for BSE majors, 27 hours)
 ART (for non-BSE majors, 24 hours)
 AUTOMOTIVE TECHNOLOGY (23 hours)
 AVIATION (21 hours)
 BIOLOGY (22 hours)
 BUSINESS ADMINISTRATION (18 hours)
 BUSINESS TEACHER EDUCATION (21 hours)
 CHEMISTRY (21 hours)
 CHILD AND FAMILY DEVELOPMENT (21 hours)
 COACHING (22 hours)
 COMMUNICATION (21 hours)
 COMPUTER INFORMATION SYSTEMS (21 hours)
 COMPUTER SCIENCE (18 hours)
 CONSTRUCTION MANAGEMENT (21 hours)
 CORPORATE COMMUNICATION (20-21 hours)
 CORRECTIONS (24 hours)
 CREATIVE WRITING (21 hours)
 CRIMINAL JUSTICE (21 hours)
 DANCE (23 hours)
 DIGITAL MEDIA PRODUCTION (21 hours)
 EARLY CHILDHOOD EDUCATION (Clinical Pathway, 26 hours)
 EARLY CHILDHOOD EDUCATION (Traditional Pathway, 28 hrs)
 EARTH SCIENCE (20 hours)
 ECONOMICS (20 hours)
 ELECTRONICS TECHNOLOGY (22-24 hours)
 ENGLISH (for BSE majors, 24 hours)
 ENGLISH (for non-BSE majors, 24 hours)
 ENTREPRENEURSHIP AND SOCIAL ENTERPRISE (19-24 hrs)
 FAMILY AND CONSUMER SCIENCES (22 hours)
 FASHION MERCHANDISING (21 hours)
 FINANCE (24 hours)
 FIRE SCIENCE (24 hours)
 FITNESS/WELLNESS (24 hours)
 FOODS (22 hours)
 FORENSIC SCIENCE (22-25 hours)
 GEOGRAPHIC INFORMATION SYSTEMS (21 hours)
 GEOGRAPHY (21 hours)
 GRAPHICS (20 hours)
 HEALTH EDUCATION (23 hours)
 HISTORY (20 hours)
 INSTRUCTIONAL TECHNOLOGY (21 hours)
 INTERNATIONAL JUSTICE (21 hours)
 INTERNATIONAL STUDIES (24 hours)

LEGAL STUDIES (21 hours)
 MANAGEMENT (18 hours)
 MANUFACTURING (22 hours)
 MARKETING (18 hours)
 MATHEMATICS (for BSE majors, 22 hours)
 MATHEMATICS (for non-BSE majors, 25 hours)
 MILITARY SCIENCE (32-34 hours)
 MODERN LANGUAGES (21 hours)
 MUSIC (23 hours)
 PHILOSOPHY (21 hours)
 PHYSICS (21-22 hours)
 POLITICAL SCIENCE (21 hours)
 PHOTOGRAPHY (20-21 hours)
 PSYCHOLOGY (21 hours)
 PUBLIC RELATIONS (18 hours)
 RELIGIOUS STUDIES (21 hours)
 SAFETY (24 hours)
 SCIENCE (24 hours)
 SECURITY (21 hours)
 SOCIAL STUDIES (24-27 hours)
 SOCIOLOGY (18 hours)
 SPECIAL EDUCATION/ELEMENTARY EDUCATION (27 hours)
 SPEECH COMMUNICATION AND THEATRE (21 hours)
 SPORT NUTRITION (20-21 hours)
 SPORTS COMMUNICATION (21 hours)
 TECHNOLOGY AND ENGINEERING EDUCATION (21 hours)
 THEATRE (23 hours)
 WOMEN, GENDER, & SEXUALITY STUDIES (15 hours)
 WORLD LANGUAGES AND CULTURES (27 hours)

UNDERGRADUATE CERTIFICATES

The following certificate programs may be earned with an undergraduate degree program or independently. Certificate programs must be a minimum of 12 credit hours and may not exceed 21 credit hours. Students must complete at least 50 percent of the required coursework through UCM.

ADVANCED VEHICLE SYSTEMS (21 hours)
 AERONAUTICS (12-13 hours)*
 APPLIED BEHAVIOR ANALYSIS (ABA) (21 hours)
 APPLIED LEAN SIX SIGMA QUALITY (15 hours)
 BUSINESS CONTINUITY (12 hours)
 EMERGENCY MANAGEMENT (12 hours)
 EMERGENCY SERVICES MANAGEMENT (12 hours)*
 ENVIRONMENTAL HAZARDS (12 hours)
 GENERAL AVIATION MAINTENANCE TRANSITION (12 hrs.)*
 STRATEGIC COMMUNICATION FOR LEADERS (12 hours)
 TECHNOLOGY (21 hours)

*NOTE: This program is pending approval from the Missouri Department of Higher Education (MDHE).

OTHER ACADEMIC PROGRAMS

The following programs are offered by the Missouri Safety Center. These programs may be earned with an undergraduate degree program or independently. More information can be found in this catalog or ucmo.edu/safetycenter. Questions may be directed to 660-543-4830 or HUM 200.

CENTRAL MISSOURI POLICE ACADEMY (15 hours)
 DRIVER EDUCATION (12 hours)

Course Prefixes

ACCT - Accounting	ECON - Economics	ISP - International Studies Abroad
AE - Academic Enrichment	EDFL - Educational Foundations and Literacy	LIB - Library
AERO - Aerospace	EDSP - Special Education	LIS - Library Science and Information Services
AGRI - Agriculture	EET - Electronics Engineering Technology	MATH - Mathematics
ANTH - Anthropology	ENGL - English	MGT - Management
ART - Art and Design	ENGT - Engineering Technology	MKT - Marketing
AT - Athletic Training	ENT - Entrepreneurial	ML - Modern Languages
ATM - Automotive Technology Management	ESE - Entrepreneurial and Social Enterprises	MS - Military Science
AVIA - Aviation	ET - Electronics Technology	MSC - Missouri Safety Center
BADM - Business Administration	FAME - Fashion and Apparel Merchandising	MUS - Music
BIOL - Biology	FCSE - Family and Consumer Sciences Education	NET - Networking
BLAW - Business Law	FIN - Finance	NUR - Nursing
BTE - Business Teacher Education	FLDX - Field Experience	PE - Physical Education
CADD - Design & Drafting Technology	FLYA - Flying Courses, Airplane	PHIL - Philosophy
CD - Communication Disorders	FLYH - Flying Courses, Helicopter	PHOT - Photography
CDM - Crisis and Disaster Management	FOOD - Food	PHYS - Physics
CFD - Child and Family Development	FREN - French	POLS - Political Science
CHEM - Chemistry	GEOG - Geography	PSY - Psychology
CHIN - Chinese	GER - German	REC - Recreation
CHST - College of Health, Science, and Technology	GISL - Government, International Studies, and Language	REL - Religious Studies
CIS - Computer Information Systems	GRAP - Graphic Arts	SAFE - Safety Science
CJ - Criminal Justice	HED - Health Education	SM - Sport Management
CMGT - Construction Management	HIST - History	SOC - Sociology
COMM - Communication	HM - Hospitality Management	SOSC - Social Sciences
CS - Computer Science	HONR - Honors	SOT - School of Technology
CTE - Career and Technology Education	HRM - Human Resource Management	SOWK - Social Work
DANC - Dance	IEP - Intensive English Program	SPAN - Spanish
D&N - Dietetics and Nutrition	IGEN - Integrative Studies General	STCH - Science Teaching
DRED - Driver Education	INDM - Industrial Management	TECH - Technology
EASC - Earth Science	INST - Instructional Technology	THEA - Theatre
ECEL - Elementary and Early Childhood Education	IS - International Studies	T&OE - Technology and Occupational Education
		TOUR - Tourism
		WGS - Women, Gender, and Sexuality

Four-Year Academic Guides

To assist students in their course planning, UCM academic departments have developed four-year guides which are available on UCM's web site at ucmo.edu/majors.

These four-year guides are intended to illustrate how students majoring in specific areas of study might organize their courses so that they may finish their degree program in four years. Obviously, every student's situation is unique and individual four-year plans

will vary. Planned placement and transfer credits might change the sequence of courses a student takes.

Please keep in mind that these four-year guides are illustrative and not legally binding. An academic department may or may not be able to offer a particular course in every semester. Curricular offerings and requirements do change over time and the University of Central Missouri Board of Governors reserves the right to make necessary changes in the curriculum at any time.

COLLEGE OF ARTS, HUMANITIES, AND SOCIAL SCIENCES

The 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:

- The Department of Communication and Sociology
- The Department of English and Philosophy
- The Department of Government, International Studies and Languages
- The Department of History and Anthropology
- The School of Visual and Performing Arts:
 - The Department of Art and Design
 - The Department of Music
 - The Department of Theatre and Dance

The back of this catalog includes course descriptions of all classes taught at the undergraduate level. Course descriptions can also be found online in MyCentral.

RELIGIOUS STUDIES

The Center for Religious Studies
 Wood 124
 660-543-8674
 ucmo.edu/religiousstudies

Center for Religious Studies Statement of Policy

Students are encouraged to seek advisement concerning courses taken toward a minor in Religious Studies from the Director of the Center for Religious Studies in Wood 124 or at selvidge@ucmo.edu.

RELIGIOUS STUDIES

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (839)

The graduate with a minor in Religious Studies will use the knowledge, experience, and skills obtained when this program is completed to:

- Recognize differences between the academic study of religions and the personal or corporate practice of religions.
- Reflect upon personal values and value systems in a global environment by using symbolic approaches to describe problems, identify alternative solutions, and make reasoned choices among those solutions.
- Compare and contrast definitions of religion and the opinions of scholars within the fields of Religious Studies.
- Demonstrate awareness and recollection of a wide variety of religious beliefs and practices within a global, pluralistic, non-racist, and non-sexist perspective.
- Recognize conflicts within and between value systems that may have their roots within religious traditions.
- Comprehend a variety of methodologies used in the study of religions

- which will help to develop skills in problem solving, analyzing, and interpreting data.
- Consider multiple perspectives, recognize biases, and cope with ambiguous points of view while listening carefully and thoughtfully to the ideas of others.
- Develop a vocabulary rooted in the study of religions that will facilitate understanding of literatures, themes, and influences upon our society and the world.
- Converse in an intelligent manner about a variety of cultures, beliefs, rituals, religious literatures, world systems, and ethical issues with people from around the globe.

Sem. Hours

MINOR REQUIREMENTS 21

Choose from the following*:

REL 1130	The Bible as Literature	3
REL 1140	Ancient Israel & Judaism	3
REL 1510	Exploring Religions	3
REL 2110	Global Images of Jesus	3
REL 2210	Religions in America	3
REL 2220	New Religions	3
REL 2310	World Views & Values	3
REL 2410	Religions of Africa	3
REL 2510	Gender & Religions	3
REL 3210	Comparative World Religions	3
REL 3220	Christianity	3
REL 3230	Islam Yesterday & Today	3
REL 3240	Native American Religions	3
REL 3250	Shiva & Indian Religions	3
REL 3260	Zen & Other Buddhist Sects	3
REL 3900	Special Projects in Religion	3
REL 4410	Modern Religious Thought	3
REL 4520	Legal Issues & Religions	3
REL 4900	Special Topics: Religion & Works	3

*Must include at least one upper-level (3000/4000) course to meet graduation requirements.

COMMUNICATION AND SOCIOLOGY

The Department of Communication and Sociology
 Martin 136
 660-543-4840
 ucmo.edu/comm

COMMUNICATION

Mission Statement

Within the framework of academic freedom, the Department of Communication and Sociology is committed to quality teaching guided by the goals and outcomes approved for every degree program offered within the department. As faculty, we are committed to guiding students toward the achievement of course goals and student outcomes through a strong theoretical approach appropriately applied through practical hands-on experiences. We recognize the link between research, scholarship and creative activities and encourage student collaboration. Our commitment to our students is to teach appropriate skills, but even more so to produce analytical, creative and responsible individuals. We view education as a collaborative effort between teacher and student, as we seek to learn from and inspire one another in the pursuit of life-long learning. Ultimately, it is our desire to prepare our graduates for successful employment in a variety of communication fields and to empower them to become productive members of society.

Admission

Students entering the University of Central Missouri to pursue a degree in Communication Studies B.S., Digital Media Production B.S., or Public Relations B.S. should indicate their intentions to become a major of

one of these programs at the time of their first enrollment. Each of the three programs have degree-specific admission requirements. See information about each of the degrees for those requirements.

Course Work

1. A student may not graduate with a degree in a communication major in which the grade of record for any required communication course is an F. The student must receive a grade of C or better in the following courses if required in their major or minor program of study: **GE**COMM 1000; **GE**ENGL 1020; **GE**ENGL 1030, **GE**CTE 3060, or **GE**ENGL 1080; **GE**COMM 1200; COMM 1520; COMM 2100; COMM 2415; COMM 2620; COMM 2625; COMM 3100; COMM 3620 and COMM 4500. A maximum of six semester hours may be counted towards a degree where the student receives a D for communication courses not on the list above. These reflect departmental minimums. Each degree program may have additional graduation requirements.
2. Course substitutions for catalog requirements may be made only upon approval of the program faculty advisor and department chair.
3. Some production or writing courses require participation in activities outside of the class meeting hours. Students should be prepared to participate in these activities that sometimes include assignments in conjunction with the campus media.
4. Some lecture courses require attendance at departmental colloquia and/or other University presentations. Students should be prepared to participate in these assignments as a part of their degree program.

COMMUNICATION

Minor for a Bachelor's Degree

Students majoring in any Communication degree are not eligible to take this minor.

UCM does not confer teacher certification for this minor. (349)

	Sem. Hours
MINOR REQUIREMENTS	21
COMM2330 Comm. in Small Groups/Teams	3
COMM3010 Interpersonal Communication	3
GE COMM 1000 Public Speaking, 3 or	
GE COMM 1050 Fund. of Oral Comm. Competency, 3	3
COMM2100 Intro. to Communication Theory, 3 or	
COMM2320 Foundations of Rhetorical Theory, 3 or	
COMM2380 Intro. to Organizational Comm., 3	3
Electives in COMM	9

COMMUNICATION STUDIES

Major, Bachelor of Science Degree
(43-602)

Mission Statement

Communication Studies is committed to preparing graduates to communicate effectively and excel at examining the role of messages in various types of human relationships, organizations, cultures and social institutions. We promote life-long learning by preparing graduates who have developed their ability to think critically, speak and write exceptionally and analyze and interpret messages creatively.

Program Outcomes

The graduate with a Bachelor of Science degree in Communication Studies will use the knowledge and skills obtained in the program to demonstrate all of the following:

- Demonstrate a general knowledge and application of communication theory;
- Demonstrate ability to critique and apply various research methods and/or approaches;
- Demonstrate preparedness for professional life and/or further academic study; and
- Demonstrate a basic knowledge through one of the three concentration areas of: 'communication consultancy' or 'social influence' or 'relational' context.

Admission Policies

1. See departmental guidelines for admissions policies. In addition;
2. All students must complete 30 hours & complete COMM 1100 with a 2.0 or above in order to apply to the department and the Communication Studies program.
3. Students must identify one (or more) area of concentration: either 'communication consultancy' or 'social influence and media' or 'relational'.

Graduation Policies

1. Course substitutions for course requirements may be made only by your departmental faculty advisor and department chair.
2. In order to graduate with a degree in Communication Studies, a student must obtain at least a 2.25 cumulative grade-point average
3. Students must complete the Senior Capstone (COMM 4790) in order to graduate.

	Sem. Hours
MAJOR REQUIREMENTS	47

Core Courses

COMM1100	Introduction to Communication	1
COMM2100	Intro. to Communication Theory	3
COMM3100	Communication Research Methods	3

Required Courses

GE COMM1000	Public Speaking	3
GE COMM2000	Media Literacy	3
COMM2330	Comm. in Small Groups/Teams	3
COMM3010	Interpersonal Communication	3
COMM3315	Improving Listening Abilities	3
COMM4320	Social Influence	3
¹⁰ COMM4790	Senior Capstone	1
COMM1520	Reporting, 3 or	
COMM2200	Writing Across the Media, 3 or	
COMM2625	Writing & Editing for Public Relations, 3	3
COMM2320	Foundations of Rhetorical Theory, 3 or	
COMM2380	Intro. to Organizational Comm., 3	3
	Choose one of the following areas	15

Communication Consultancy (15 hours)

COMM 3350	Professional Communication	3
COMM 4785	Internship Speech Comm.	3
COMM 3327	Improving Interviewing Skills, 3 or	
COMM 3730	Conflict Management, 3	3
COMM 2410	Multimedia Production, 3 or	
COMM 4630	Electronic & Social Media for PR, 3	3
COMM 4670	Strategic Crisis Communication, 3 or	
COMM 4780	Comm. Leadership & Practice in Org., 3 or	
COMM 4781	Strategic Communication Audits, 3 or	
COMM 4783	Communication Training, 3	3

Social Influence and Media (select 15 hours)

COMM 2410	Multimedia Production	3
COMM 2340	Argumentation & Debate	3
COMM 2620	Intro. to Public Relations	3
COMM 2700	DC: Eff. Comm. & Human Relations	3
COMM 3320	Comm. of Social Movements	3
COMM 3350	Professional Communication	3
COMM 3730	Conflict Management	3
COMM 4280	Mass Media & Society	3
COMM 4285	Women & Minorities in Media	3
COMM 4300	Special Projects Speech Comm.	3
COMM 4340	Rhetorical Analysis & Society	3
COMM 4370	Special Topics in Communication	3
COMM 4390	Contemporary Communication	3
COMM 4670	Strategic Crisis Communication	3
	Approved POLS or SOC courses	3

Relational (select 15 hours)

COMM 2700	DC: Eff. Comm. & Human Relations	3
COMM 3325	Nonverbal Communication	2
GE COMM 3340	Intercultural Communication	3
COMM 3730	Conflict Management	3
COMM 4270	Family Communication.	3
COMM 4300	Special Projects in Speech Comm.	3
COMM 4330	Theories of Interpersonal Comm.	3

COMM 4335	Gender Communication	3
COMM 4370	Special Topics in Communication	3
*SOC 3825	Race & Ethnic Relations	3
*Student must take GE SOC 1800 (3 s.h) as prerequisite in order to enroll in course. This course is part of the GenEd competency #8.		
GENERAL EDUCATION REQUIREMENTS		36
All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:		
GE COMM 1000	Public Speaking.	(3)
GE COMM 2000	Media Literacy	(3)
GE COMM 3000	Film Appreciation.	3
FREE ELECTIVES		37
MINIMUM TOTAL		120
¹⁰ Competency 10 course		

CORPORATE COMMUNICATION

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (556)

		Sem. Hours
MINOR REQUIREMENTS		20-21
COMM2330	Comm. in Small Groups/Teams	3
COMM2380	Intro. to Organizational Comm.	3
COMM3350	Professional Communication	3
COMM3730	Conflict Management	3
COMM4780	Comm. Leadership & Practice in Org.	3
COMM4781	Strategic Communication Audits. 3 or	
COMM4783	Communication Training, 3	3
Elective from the following		2-3
COMM 3315	Improving Listening Abilities	3
COMM 3325	Nonverbal Communication	2
COMM 3327	Improving Interviewing Skills	3
MGT 3325	Business Communications	3

DIGITAL MEDIA PRODUCTION

Major, Bachelor of Science Degree

Please see the Department of Communication and Sociology for updates regarding this program. (43-604)

Mission Statement

The Digital Media Production major is a professional program that prepares graduates to be engaged with the principles of life-long learning in this media-saturated society. The graduate will have the skills to succeed and lead in an ever-changing global media landscape.

Program Outcomes

- The graduate with a Bachelor of Science degree in Digital Media Production will use the knowledge and skills obtained in the program to:
- Successfully convey ideas through the written and spoken word, and through various forms of digital media.
 - Synthesize classroom instruction and initiate the exploration, development, and execution of projects that build professional experience.
 - Apply knowledge of emerging technology and social media in the creation and distribution of media.
 - Apply an in-depth understanding of the ethical principles that guide the student's chosen profession.
 - Demonstrate a working knowledge of digital media law to produce content that is legal and promotes the principles of freedom of expression.
 - Demonstrate proficiency in the area of Live Studio and Remote Production, Audio, Digital Cinema or Digital Journalism:
 - Proficiency in the Live Studio and Remote Production concentration means the student can successfully complete each step in the production process, from conception through distribution, using both field and studio techniques.
 - Proficiency in the Audio production concentration means the student

can manipulate sound to perform and produce audio programming, and apply promotion techniques for audio distribution outlets.

- Proficiency in the Digital Cinema concentration means the student can work within the parameters of narrative or documentary production process, as well as analyze and critique film.
- Proficiency in the Digital Journalism production concentration means the student can generate news stories, images, and features for print, broadcast, and Web using appropriate style, design, and editing techniques.

Admission Policies

1. At the time of first admission to UCM, students should indicate their intentions to become a Digital Media Production major. After the completion of 15 hours, the student must visit the program's Academic Advisor in the College of Arts, Humanities, and Social Sciences (Martin 124, phone 660.543.4814). The Academic Advisor will review the student's records, then select a Digital Media Production faculty advisor for the student. At that point, the student should meet with the faculty advisor to be admitted to the program. Students can access admission forms at ucmo.edu/comm. The forms should be submitted to the faculty advisor.
2. Admission to the Digital Media Production program is conditional upon the following prerequisites: Completing **GE** COMM 1000; **GE** ENGL 1020 and **GE** ENGL 1030, or **GE** ENGL 1080, with a grade no lower than a C in all courses.
3. The DMP faculty recommends that students meet with their faculty advisor before registering for classes each semester.

When the student has reached 70 hours at UCM, there will be a hold on enrollment—the student must visit his or her faculty advisor to review the academic records to continue in the program.

Graduation Policies

1. Course substitutions for course requirements may be made only by the departmental faculty advisor and department chair.
2. A student may not graduate with a degree in Digital Media Production in which the grade of record for any required communication course work is an F.
3. A student must earn a grade no lower than a C in the following courses in order to graduate with a Digital Media Production degree: **GE** COMM 1000; COMM 1100; **GE** COMM 1200; **GE** ENGL 1020, **GE** ENGL 1030, **GE** CTE 3060, or **GE** ENGL 1080; **GE** COMM 2000; and **GE** COMM 3000.
4. Only six semester hours of communication course work with a D can be counted toward the Digital Media Production major.
5. In order to graduate with a degree in Digital Media Production, a student must obtain at least a 2.0 grade-point average for all credit hours completed at UCM or elsewhere and attain at least a 2.50 grade-point average for all course work in the major.
6. Students must complete the major requirements and one area of concentration: Audio, Live Studio and Remote Production; Digital Cinema; or Digital Journalism.

Sem. Hours

MAJOR REQUIREMENTS		51
COMM 1100	Introduction to Communication	1
COMM 1275	Introduction to Media Technology	1
COMM 2100	Introduction to Communication Theory	3
COMM 2200	Writing Across the Media	3
COMM 2250	Media Aesthetics	3
COMM 2410	Multimedia Production	3
COMM 2411	Audio Production	3
COMM 2412	Introduction to Digital Video	3
COMM 3100	Communication Research Methods	3
COMM 4250	The Law & Digital Media	3
¹⁰ COMM 4490	Senior Capstone Seminar	1
COMM 3200	Digital Media Practicum, 1-3 or	
COMM 4295	Internship, 1-3	3
Choose one of the following areas		21
Audio		
COMM 2450	Performance for the Media	3

COMM 3410	Advanced Radio Production	3
COMM 3425	Audio for Digital Cinema	3
MUS 2400	Sound Reinforcement & Music Production	3
MUS 2410	Digital Audio Production	3
	Choose 6 hours from the following	6
COMM 2560	Intro. to Sports Broadcasting	3
COMM 4235	Media Promotions	3
COMM 4565	Mule Productions	3
	Live Studio and Remote Production	
COMM 2450	Performance for the Media	3
COMM 3050	Cinematography	3
COMM 3450	Digital Video Editing	3
COMM 4410	Studio Production Techniques	3
COMM 4565	Mule Productions	3
	Choose 6 hours from the following	6
COMM 2560	Intro. to Sports Broadcasting	3
COMM 3560	Advanced Sports Broadcasting	3
COMM 4235	Media Promotions	3
COMM 4435	Broadcast News Production	3
	Digital Cinema	
COMM 2275	Screenwriting	3
COMM 3050	Cinematography	3
COMM 3400	History of American Film	3
COMM 3413	Advanced Multimedia Production	3
COMM 3450	Digital Video Editing	3
	Choose 6 hours from the following	6
COMM 4412	Narrative Production	3
COMM 4550	Advanced Screenwriting	3
COMM 4560	Documentary Production	3
COMM 4570	History of International Film	3
	Digital Journalism	
COMM 1520	Reporting	3
COMM 2520	Editing and Design.	3
COMM 2530	Visual News Production	3
COMM 3500	Reporting Public Affairs	3
COMM 3535	Broadcast Journalism	3
COMM 4500	History of the American Press	3
COMM 4535	Advanced Digital Journalism	3
GENERAL EDUCATION REQUIREMENTS		42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GE COMM1000	Public Speaking.	3
GE COMM1200	Introduction to Mass Communication (for Audio and LS&RP only)	3
GE COMM2000	Media Literacy	3
GE COMM 3000	Film Appreciation.	3
GE MUS 1450	Audio and Acoustics (for Audio and DJ only)	3

FREE ELECTIVES **27**

MINIMUM TOTAL **120**

¹⁰Competency 10 course

DIGITAL MEDIA PRODUCTION

Minor for a Bachelor's Degree

Please see the Department of Communication and Sociology for updates regarding this program.

UCM does not confer teacher certification for this minor.

(575)

		Sem. Hours
MINOR REQUIREMENTS		21
GE COMM 1200	Intro. to Mass Communication	3
COMM 2200	Writing Across the Media	3
COMM 2410	Multimedia Production	3
COMM 2412	Introduction to Digital Video	3
Electives from the following**		9
COMM 1520	Reporting	3
COMM 2411	Audio Production	3

COMM 2415	Broadcast Copywriting	3
COMM 2520	Editing and Design.	3
COMM 2530	Visual News Production	3
COMM 3411	Video Production II	3
COMM 3450	Digital Video Editing.	3
COMM 3535	Broadcast Journalism	3
COMM 4410	Studio Production Techniques	3
COMM 4412	Narrative Production	3

**Must include at least one upper-level (3000/4000) course to meet graduation requirements.

PUBLIC RELATIONS

Major, Bachelor of Science Degree

Please see the Department of Communication and Sociology for updates regarding this program. For course work requirements, see Statement of Policy.

A public relations bachelor of science degree requires a minimum of 120 semester hours. A minor is not required but is encouraged. An Industry Practices concentration is also elective. (43-351)

Mission Statement

To provide students with a world-class education, through a small-college learning environment, in public relations and strategic communication.

Program Outcomes

The graduate with a Bachelor of Science degree in Public Relations will use the knowledge and skills obtained in the program to:

- Demonstrate public relations driven knowledge and understanding.
- Demonstrate written, oral and visual communication knowledge and application proficiency for public relations purposes.
- Demonstrate critical thinking, problem-solving, and decision making proficiency relevant to public relations purposes.
- Demonstrate research knowledge and application proficiency for public relations purposes.
- Demonstrate strategic planning knowledge and application proficiency for public relations purposes.
- Demonstrate preparedness for professional life and/or further academic study.

Admission Policies

At the time of first admission to UCM, a student should indicate/declare the intent to become a public relations major. Each declared major is encouraged to visit the program's academic advisor in the College of Arts, Humanities, and Social Sciences (Martin 124, phone 660-543-4814) at any time for general education or transfer advising. In addition, the student can also visit the public relations program faculty advisor (Martin 132/PR Suite, 660-543-4840) at any time for major-related advising. Admission to the public relations program occurs after the successful completion of the public relations gateway sequence (COMM 2620, COMM 2625 & COMM 3620) and application for admission. Admission forms are available at ucmo.edu/pr. Completed forms should be submitted in hardcopy to the public relations faculty advisor. Application information, and a student's DegreeWorks degree audit will be reviewed and admission eligibility determined.

The following prerequisites are required for admission to the Public Relations program: (1) completion of general education courses **GE** ENGL 1020 and **GE** ENGL 1030 or **GE** ENGL 1080 or **GE** CTE 3060, and **GE** COMM 1000 or **GE** COMM 1050 with a grade no lower than a C; and (2) completion of major-specific courses COMM 2620, COMM 2625 and COMM 3620 with no grade lower than a C and a 2.33 grade-point average or better.

The public relations faculty encourage all students to meet with an advisor each semester before enrolling.

Graduation Policies

1. Course substitutions for program requirements may be made only by the public relations program advisor and department chair.
2. A student may not graduate with a degree in public relations in which the grade of record for any required communication coursework is an F.
3. A student must earn a grade no lower than a C in the following courses in order to graduate with a public relations degree: **GE** COMM 1000

GE COMM 1050; GE ENGL 1020, GE ENGL 1030 or GE ENGL 1080 or GE CTE 3060; COMM 2620, COMM 2625 and COMM 3620.

4. Only six semester hours of communication coursework with a D can be counted toward the public relations major. Any D credits to be counted must be approved by the public relations program faculty advisor.

5. To graduate with a public relations degree, a student must obtain at least a 2.25 grade-point average for all credit hours completed at UCM or elsewhere and attain at least a 2.50 grade-point average for all course work in the major.

6. COMM 4200 or COMM 4600 may be repeated for up to six hours. Three hours of COMM 4605 are required; three additional hours of COMM 4605 are elective. COMM 4625 may be repeated up to nine hours with proper approval.

7. Public relations majors are not required to complete a concentration or minor. They are, however, encouraged to complete the public relations-specific Industry Practices concentration or any minor of their choosing. The Industry Practices concentration and minors can be declared when visiting the CAHSS Academic Advising Office.

Sem. Hours

MAJOR REQUIREMENTS 52

COMM 1100	Introduction to Communication	1
COMM 2100	Introduction to Communication Theory	3
COMM 2620	Introduction to Public Relations	3
COMM 2625	Writing & Editing for Public Relations	3
COMM 3100	Communication Research Methods	3
COMM 3620	Strategic Planning & Research for PR	3
COMM 3625	Design & Layout for Publications	3
COMM 3640	Integrated Strategic Communication	3
COMM 4250	The Law & Digital Media	3
COMM 4605	PR Internship	3
COMM 4610	PR Management & Industry Practices	3
COMM 4630	Electronic & Social Media for PR	3
COMM 4680	Advanced PR Writing	3
COMM 4685	Strategic Planning through PR Case Analysis	3
¹⁰ COMM 4690	Campaigns	3
	Electives from the following	9
COMM 3650	Global Sports Public Relations	3
COMM 4200	Special Topics in Mass Media	1-6
COMM 4510	Magazine Design & Production	3
COMM 4600	Special Topics in Public Relations	3-6
COMM 4605	PR Internship	1-3
COMM 4625	Innovative PR / Spec. Topics in PR	1-9
COMM 4670	Strategic Crisis Communication	3
COMM 4675	Media Training	3

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GE COMM 1000	Public Speaking, 3 or
GE COMM 1050	Fund. of Oral Comm. Competency, 3 3

FREE ELECTIVES 26
MINIMUM TOTAL 120

¹⁰Competency 10 course

Industry Practices concentration

Students electing this concentration cannot obtain a minor in any business area including CIS, Marketing, Management, Finance, Accounting, and Entrepreneurship and Social Enterprise, or elect a second business area concentration.

Sem. Hours

REQUIREMENTS 18

BLAW 2720	Legal Environment of Business.	3
MKT 3405	Marketing Policy	3
ACCT 2100	Survey of Accounting, 3 or	
ACCT 2101	Principles of Financial Accounting, 3	3
MGT 3315	Management of Organizations, 3 or	
MGT 3320	Systems, Teams & Org. Behavior, 3	3
ESE 3710	Entrepreneurial Business Planning, 3 or	
COMM 4625	Innovative PR / Spec. Topics in PR, 3	3
MKT 3420	Principles of Advertising, 3 or	
MKT 3480	Consumer Behavior, 3	3

PUBLIC RELATIONS

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (253)

All public relations minors must obtain a 2.25 GPA (with no grade lower than a C) in COMM 2620, COMM 2625 and COMM 3620.

The graduate with a Bachelor of Science degree with a Public Relations minor will at some level use the knowledge and skills obtained in the program to:

- Demonstrate public relations driven knowledge and understanding.
- Demonstrate written, oral and visual communication knowledge and application proficiency for public relations purposes.
- Demonstrate critical thinking, problem-solving, and decision making proficiency relevant to public relations purposes.
- Demonstrate research knowledge and application proficiency for public relations purposes.
- Demonstrate strategic planning knowledge and application proficiency for public relations purposes.
- Demonstrate preparedness for professional life and/or further academic study.

Sem. Hours

MINOR REQUIREMENTS 18

COMM 2620	Introduction to Public Relations	3
COMM 2625	Writing & Editing for Public Relations	3
COMM 3100	Comm. Research Methods	3
COMM 3620	Strategic Planning & Research for PR	3
COMM 4685	Strategic Planning through PR Case Analysis	3
	Departmentally approved elective (see PR major electives)	3

SPEECH COMMUNICATION AND THEATRE

Minor, Bachelor of Science in Education Degree

See requirements as outlined in the Department of Theatre.

SPORT COMMUNICATION

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (883)

Sem. Hours

MINOR REQUIREMENTS 21

COMM 2412	Introduction to Digital Video	3
COMM 1520	Reporting, 3 or	
COMM 2625	Writing & Editing for Public Relations, 3	3
COMM 2540	Sports Writing 3 or	
SM 4210	Sport & Media, 3	3
COMM 2560	Introduction to Sports Broadcasting, 3 or	
COMM 2620	Introduction to Public Relations, 3	3
COMM 3560	Advanced Sports Broadcasting, 3 or	
COMM 3650	Global Sports Public Relations, 3	3
MKT 4454	Sports Marketing, 3 or	
SM 4200	Applied Sport Marketing, 3	3
SOC 3840	Sociology of Sport, 3 or	
PE 4840	Social Aspects of Physical Activity, 3 or	
GE PE 2472	Communicating Ideas on Sport, 3	3

STRATEGIC COMMUNICATION FOR LEADERS

Certificate

(10-566)

Required Courses	12	
COMM 2700	DC: Eff. Comm. & Human Relations	3
COMM 4700	DC: High Impact Presentations	1
COMM 4780	Comm. Leadership & Practice in Org.	3
COMM 4781	Strategic Communication Audits	3
MGT 3300	DC: Leadership Trng. for Managers.	2

SOCIOLOGY

SOCIOLOGY

Major, Bachelor of Arts Degree
(42-755)

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

- Develop an awareness of personal assumptions, as well as basic American assumptions in analyzing positions on social issues.
- Discern the basic components of culture including group diversity, socialization, identity, and cultural symbols.
- Delineate the basic process and consequences of stratification across social categories including ethnicity, race, social class, gender, and societies.
- Recognize how social institutions operate organizationally within society and how they vary over time and space.
- Create reasonable linkages between empirical evidence and theory utilizing both inductive and deductive forms of logic.
- Develop effective ways of communicating in professional contexts.
- Understand basic research procedures in accord with the scholarly practices of the discipline of Sociology including the utilization of research journals and their documentation, construction of a research document to report findings, and the proper citation of sources.
- Critically evaluate the relative strengths and weaknesses of competing theoretical views and everyday frameworks of understanding, recognizing the complexity and uncertainty that are always present.

Sem. Hours

MAJOR REQUIREMENTS 30

☞SOC	1800	General Sociology	3
*SOC	2805	Introduction to Social Research	3
SOC	2845	Social Inequality, 3 or	
SOC	2850	Institutions & Social Action, 3	3
SOC	4860	Sociological Thought	3
SOC	4890	Social Survey Research	3
¹⁰ SOC	4895	Senior Seminar in Public Sociology	3
		Electives in sociology **	12

**Sociology electives are organized into three areas based on the central learning outcomes. Students are not required to declare a particular area, but this helps create focus for elective choices.

Area 1 Culture

SOC	3810	Culture and Society	3
SOC	3820	Popular Culture	3
SOC	3845	Social Deviance	3
SOC	3870	Personality and Society	3
SOC	3895	Outsiders and Outcasts	3
SOC	4885	Religion and Society	3

Area 2 Inequality & Social Change

SOC	3825	Race and Ethnic Relations	3
SOC	3830	Collective Behavior	3
SOC	3885	Globalization and the Future	3
SOC	4855	Family Diversity	3
SOC	4894	Sociology of Aging	3

Area 3 Social Institutions

SOC	2825	Family and the Life Course	3
SOC	3815	Urban Sociology	3
SOC	3840	Sociology of Sport	3
SOC	3890	Criminology	3
SOC	4850	Work and the Modern Society	3
SOC	4875	Medical Sociology	3

GENERAL EDUCATION REQUIREMENTS 36

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in (I) are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

☞MATH	1300	Basic Statistics	3
☞SOC	1800	General Sociology	(3)
☞Modern Language		. . . . .	(3)

MODERN LANGUAGE REQUIREMENT6-9

Refer to Bachelor's Degree Requirements section for fulfillment options.

FREE ELECTIVES 45-48

MINIMUM TOTAL 120

¹⁰Competency 10 course

*NOTE: Students pursuing a double major or minor who have already completed an upper-level (3000/4000) research course may substitute that course for SOC 2805 with permission of the program coordinator.

SOCIOLOGY

Major, Bachelor of Science Degree
(43-756)

The graduate with a Bachelor of Science degree in Sociology will use the knowledge and skills obtained in the program to:

- Develop an awareness of personal assumptions, as well as basic American assumptions in analyzing positions on social issues.
- Discern the basic components of culture including group diversity, socialization, identity, and cultural symbols.
- Delineate the basic process and consequences of stratification across social categories including ethnicity, race, social class, gender, and societies.
- Recognize how social institutions operate organizationally within society and how they vary over time and space.
- Create reasonable linkages between empirical evidence and theory utilizing both inductive and deductive forms of logic.
- Develop effective ways of communicating in professional contexts.
- Understand basic research procedures in accord with the scholarly practices of the discipline of Sociology including the utilization of research journals and their documentation, construction of a research document to report findings, and the proper citation of sources.
- Critically evaluate the relative strengths and weaknesses of competing theoretical views and everyday frameworks of understanding, recognizing the complexity and uncertainty that are always present.

Sem. Hours

MAJOR REQUIREMENTS 36

☞SOC	1800	General Sociology	3
*SOC	2805	Introduction to Social Research	3
SOC	2845	Social Inequality, 3 or	
SOC	2850	Institutions & Social Action, 3	3
SOC	4860	Sociological Thought	3
SOC	4890	Social Survey Research	3
¹⁰ SOC	4895	Senior Seminar in Public Sociology	3
		Electives in sociology **	18

**We have organized Sociology electives into three areas based on our central learning outcomes. We do not require you to declare a particular area, but this helps you create focus to your elective choices.

Area 1 Culture

SOC	3810	Culture and Society	3
SOC	3820	Popular Culture	3
SOC	3845	Social Deviance	3
SOC	3870	Personality and Society	3
SOC	3895	Outsiders and Outcasts	3
SOC	4885	Religion and Society	3

Area 2 Inequality & Social Change

SOC	3825	Race and Ethnic Relations	3
SOC	3830	Collective Behavior	3
SOC	3885	Globalization and the Future	3
SOC	4855	Family Diversity	3
SOC	4894	Sociology of Aging	3

Area 3 Social Institutions

SOC	2825	Family and the Life Course	3
SOC	3815	Urban Sociology	3
SOC	3840	Sociology of Sport	3
SOC	3890	Criminology	3
SOC	4850	Work and the Modern Society	3
SOC	4875	Medical Sociology	3

GENERAL EDUCATION REQUIREMENTS 39

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in (I) are counted in the major or other hours and not in the general

education hours. The following general education classes are required by this major:

GE MATH 1300	Basic Statistics	3
GE SOC 1800	General Sociology	(3)
FREE ELECTIVES		45
MINIMUM TOTAL		120

¹⁰Competency 10 course

*NOTE: Students pursuing a double major or minor who have already completed an upper-level (3000/4000) research course may substitute that course for SOC 2805 with permission of the program coordinator.

SOCIOLOGY

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (757)

MINOR REQUIREMENTS		Sem. Hours
		18

GE SOC 1800	General Sociology, 3 or	
GE SOC 1830	Social Problems, 3	3
*SOC 2805	Introduction to Social Research, 3 or	
SOC 4890	Social Survey Research, 3	3
SOC 2845	Social Inequality, 3 or	
SOC 2850	Institutions & Social Action, 3	3
	Electives in sociology*	9

*NOTE: Students pursuing a double major or minor who have already completed an upper-level (3000/4000) research course may substitute that course for SOC 2805 with permission of the program coordinator.

*Must include at least one upper-level (3000/4000) course to meet graduation requirements.

WOMEN'S AND GENDER STUDIES

The Center for Women's and Gender Studies
Wood 110
660-543-4832
ucmo.edu/womensstudies

WOMEN, GENDER & SEXUALITY STUDIES

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (885)

A student with a minor in Women, Gender and Sexuality Studies will be able to:

- Describe differing assumptions about gender and sexuality and the effect on the individual and society.
- Assess gender and sexuality issues from an interdisciplinary perspective.
- Apply understandings of gender and sexuality to the major field of study.
- Utilize knowledge of gender and sexuality to participate in civic and community decision-making.

MINOR REQUIREMENTS		Sem. Hours
		15

Select 2 of the following 3		6
GE WGS 1050	Women's Voices	3
GE WGS 2000	Race, Class & Gender	3
GE WGS 2050	Sexuality, Debate and Action	3

Electives
Electives must reflect at least two different prefix areas other than WGS. **

ANTH 4820	Anthropology of Gender	3
GE CFD 1010	Individual & Family Relationships	3
CFD 4220	Sexuality Across the Lifespan	3
CFD 4850	Family Policy & Advocacy	3
CJ 4403	Sexual Assault & the	

	Criminal Justice System	3
CJ 4920	Women & Crime	3
*COMM 4285	Women & Minorities In Media	3
*COMM 4335	Gender Communications	3
ENGL 2270	Fict. by Women Around the World	3
ENGL 4560	British Women Writers	3
ENGL 4660	Women Writers of the United States	3
HED 4320	Teaching Sexuality Ed. in the School	3
HIST 4310	Women in America	3
HIST 4327	African American Women, Gender & Girlhood	3
NUR 2020	Health: Women's Perspective	2
NUR 4030	Human Sexuality	2
POLS 3553	Women & Politics	3
POLS 4581	Civil Rights & Liberties	3
PSY 4320	Psychology of Women	3
REL 2510	Gender & Religions	3
SOC 4855	Family Diversity	3
WGS 4810	Special Projects in Women, Gender & Sexuality	1-3

*This course has a prerequisite not listed in the program; see specific class listing in the catalog for additional requirements.

**Must include at least one upper-level (3000/4000) course to meet graduation requirements.

ENGLISH AND PHILOSOPHY

The Department of English and Philosophy
Martin 336
660-543-4425
ucmo.edu/englphil

ENGLISH

ENGLISH

Major, Bachelor of Arts Degree
(42-303)

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

- Appreciate the aesthetics of literature; understand its origins, trends, critical approaches, classifications, and limitations; and evaluate significant patterns of meaning found in its study.
- Write and speak with clarity, originality, grammatical correctness, and logic, demonstrating rhetorical skills necessary for successful communication.
- Accomplish primary and secondary research, incorporating the results into formal written and oral presentations.
- Understand language diversity as well as language uses, the relationship between spoken and written language, historical developments and social/cultural adaptations.
- Understand the relationship between a work of literature and the historical/cultural milieu in which it was written.

MAJOR REQUIREMENTS		Sem. Hours
		39

GE ENGL 2220	World Masterpieces	3
ENGL 3120	History of English Language	3
ENGL 3240	Critical Approaches to Literature	3
¹⁰ ENGL 4240	Senior Capstone in Literature	3
ENGL 4360	Shakespeare	3
	3000-4000 level electives in English	6

British Literature

Select British Literature Area A or B

British Literature Area A

GE ENGL 2210	British Literature to 1798	3
	Electives from the following	6
ENGL 4500	19th Century English Novel	3

ENGL 4510	Romantic Poets & Essayists	3
ENGL 4540	Victorian Poets & Essayists	3
ENGL 4560	British Women Writers	3
ENGL 4700	British Fiction 1890 to Present	3
ENGL 4720	Modern British Poetry	3
British Literature Area B		
GEENGL 2215	British Lit. 1798 to Present	3
Electives from the following		6
ENGL 4310	Chaucer	3
ENGL 4330	Renaissance English Writers	3
ENGL 4340	Old & Middle English Lit.	3
ENGL 4450	The Age of Milton	3
ENGL 4460	Wits & Satirists: 1660-1800	3
American Literature		
Select American Literature Area A or B		9
American Literature Area A		
GEENGL 2200	American Literature to 1865	3
Electives from the following		6
ENGL 4640	American Realists & Naturalists	3
ENGL 4660	Women Writers of the U.S.	3
ENGL 4670	Ethnic American Lit.	3
ENGL 4680	African American Lit.	3
ENGL 4710	Modern American Fiction	3
ENGL 4730	Modern American Poetry	3
American Literature Area B		
GEENGL 2205	American Lit. 1865 to Present	3
Electives from the following		6
ENGL 4610	American Renaissance	3
ENGL 4620	Early American Literature	3
ENGL 4670	Ethnic American Lit.	3
ENGL 4680	African American Lit.	3
MINOR REQUIREMENTS 18-25		
GENERAL EDUCATION REQUIREMENT 36		
All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in (I) are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:		
GEENGL 2220	World Masterpieces	(3)
GEModern Language		(3)
MODERN LANGUAGE REQUIREMENT 6		
Refer to Bachelor's Degree Requirements section for fulfillment options.		
FREE ELECTIVES 14-21		
MINIMUM TOTAL 120		
¹⁰ Competency 10 course		

ENGLISH

Major, Bachelor of Science in Education Degree

Certification to teach English in grades 9-12 (41-311)

The graduate with a Bachelor of Science in Education degree in English will use the knowledge and skills obtained in the program to:

- Appreciate the aesthetics of literature; understand its origins, trends, critical approaches, classifications, and limitations; and evaluate significant patterns of meaning found in its study.
- Write and speak with clarity, originality, grammatical correctness, and logic, demonstrating rhetorical skills necessary for successful communication.
- Accomplish primary and secondary research, incorporating the results into formal written and oral presentations.
- Understand language diversity as well as language uses, the relationship between spoken and written language, historical developments and social/cultural adaptations, and particular and universal linguistic features.
- Understand the relationship between a work of literature and the historical/cultural milieu in which it was written.
- Identify the components of a sound language arts curriculum at the secondary school level.

- Understand and apply currently accepted teaching theory and practice.
- Develop a personal philosophy and teaching style that accounts for diverse student backgrounds, needs, and abilities and that reflects growing teacher expertise.

Sem. Hours

MAJOR REQUIREMENTS 48

GEENGL 2220	World Masterpieces	3
ENGL 2830	Literature for Adolescents	3
ENGL 3040	Advanced Rhetoric	3
ENGL 3110	English Grammar	3
ENGL 3120	History of English Language	3
ENGL 3240	Critical Approaches to Literature	3
ENGL 4360	Shakespeare	3
ENGL 4840	Composition & Evaluation	3
3000-4000 level electives in English		6

British Literature

Select British Literature Area A or B 9

British Literature Area A

GEENGL 2210	British Literature to 1798	3
Electives from the following		6
ENGL 4500	19th Century English Novel	3
ENGL 4510	Romantic Poets & Essayists	3
ENGL 4540	Victorian Poets & Essayists	3
ENGL 4560	British Women Writers	3
ENGL 4700	British Fiction 1890 to Present	3
ENGL 4720	Modern British Poetry	3

British Literature Area B

GEENGL 2215	British Lit. 1798 to Present	3
Electives from the following		6
ENGL 4310	Chaucer	3
ENGL 4330	Renaissance Engl. Writers	3
ENGL 4340	Old & Middle English Lit.	3
ENGL 4450	The Age of Milton	3
ENGL 4460	Wits & Satirists: 1660-1800	3

American Literature

Select American Literature Area A or B 9

American Literature Area A

GEENGL 2200	American Literature to 1865	3
Electives from the following		6
ENGL 4640	American Realists & Naturalists	3
ENGL 4660	Women Writers of the U. S.	3
ENGL 4670	Ethnic American Literature	3
ENGL 4680	African American Literature	3
ENGL 4710	Modern American Fiction	3
ENGL 4730	Modern American Poetry	3

American Literature Area B

GEENGL 2205	American Literature 1865 to Present	3
Electives from the following		6
ENGL 4610	American Renaissance	3
ENGL 4620	Early American Literature	3
ENGL 4670	Ethnic American Literature	3
ENGL 4680	African American Literature	3

PROFESSIONAL EDUCATION REQUIREMENTS (page 90) 31

EDFL 2100	Foundations of Education	2
GEEDFL 2240	Educational Psychology	3
EDFL 3500	Secondary Teaching & Behavioral Mgt.	3
EDFL 4210	Teaching Reading in Secondary School	2
EDFL 4300	Educational Assessment & Evaluation	2
EDSP 2100	Education of the Exceptional Child	2
FLDX 2150	Introductory Field Experience	1
FLDX 3550	Practicum in Secondary Instruction	1
GEPSY 4230	Psychology of Adolescence	3
Student Teaching semester		
ENGL 4820	Secondary Field Experience II	1
ENGL 4890	Methods of Teaching English	2
¹⁰ FLDX 4468	Student Teaching Secondary II	4
FLDX 4595	Student Teaching Secondary I	5

GENERAL EDUCATION REQUIREMENTS 33

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in (I) are counted in the major or other hours and not in the general

education hours. The following general education classes are required by this major:

GEENGL 2210	British Literature to 1798, 3 or	
GEENGL 2215	Brit. Lit. 1798 to Present, 3	(3)
GEENGL 2220	World Masterpieces	(3)
GEHIST 1350	History of US to 1877, 3 or	
GEHIST 1351	History US from 1877, 3	3
GEPLS 1510	American Government	3
GEPSY 4230	Psychology of Adolescence	(3)
FREE ELECTIVES		8
MINIMUM TOTAL		120

¹⁰Competency 10 course

ENGLISH

Minor, Bachelor of Science in Education Degree

Elementary education majors may use this as an area of concentration. (305)

	Sem. Hours	
MINOR REQUIREMENTS	24	
GEENGL 2220	World Masterpieces	3
ENGL 3110	English Grammar	3
ENGL 3120	History of English Language	3
ENGL 4840	Composition & Evaluation	3
	3000 - 4000 Level Elective in English	3

American Literature

Select American Literature Area A or B 6

American Literature Area A

GEENGL 2200	American Literature to 1865	3
	Elective from the following	3
ENGL 4640	American Realists & Naturalists	3
ENGL 4660	Women Writers of the U. S.	3
ENGL 4670	Ethnic American Literature	3
ENGL 4680	African American Literature	3
ENGL 4710	Modern American Fiction	3
ENGL 4730	Modern American Poetry	3

American Literature Area B

GEENGL 2205	American Lit. 1865 to Present	3
	Elective from the following	3
ENGL 4610	American Renaissance	3
ENGL 4620	Early American Literature	3
ENGL 4670	Ethnic American Literature	3
ENGL 4680	African American Literature	3

British Literature

GEENGL 2210	British Literature to 1798, 3 or	
GEENGL 2215	British Lit. 1798 to Present, 3	3

ENGLISH

Minor for a Bachelor's Degree

Except for a Bachelor of Science in Education Degree. (2009)

	Sem. Hours	
MINOR REQUIREMENTS	24	
GEENGL 2220	World Masterpieces	3
ENGL 3120	History of English Language	3
ENGL 4360	Shakespeare	3
	3000-4000 level electives in English	3

British Literature

Select British Literature Area A or B 6

British Literature Area A

GEENGL 2210	British Literature to 1798	3
	Elective from the following	3
ENGL 4500	19th Century English Novel	3
ENGL 4510	Romantic Poets & Essayists	3
ENGL 4540	Victorian Poets & Essayists	3
ENGL 4560	British Women Writers	3
ENGL 4700	British Fiction 1890 to Present	3
ENGL 4720	Modern British Poetry	3

British Literature Area B

GEENGL 2215	Brit. Lit. 1798 to Present	3
	Elective from the following	3
ENGL 4310	Chaucer	3
ENGL 4330	Renaissance English Writers	3
ENGL 4340	Old & Middle English Lit.	3
ENGL 4450	The Age of Milton	3
ENGL 4460	Wits & Satirists: 1660-1800	3

American Literature

Select American Literature Area A or B 6

American Literature Area A

GEENGL 2200	American Literature to 1865	3
	Elective from the following	3
ENGL 4640	American Realists & Naturalists	3
ENGL 4660	Women Writers of the U.S.	3
ENGL 4670	Ethnic American Literature	3
ENGL 4680	African American Literature	3
ENGL 4710	Modern American Fiction	3
ENGL 4730	Modern American Poetry	3

American Literature Area B

GEENGL 2205	American Lit. 1865 to Present	3
	Elective from the following	3
ENGL 4610	American Renaissance	3
ENGL 4620	Early American Literature	3
ENGL 4670	Ethnic American Literature	3
ENGL 4680	African American Literature	3

CREATIVE WRITING

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (490)

	Sem. Hours
MINOR REQUIREMENTS	21

ENGL 2050	Creative Writing	3
	Electives from the following	3-6
ENGL 3051	Advanced Poetry Writing	3
ENGL 3052	Advanced Fiction Writing	3
	Electives from the following	3-6
ENGL 4051	Writing Poetry for Publication	3
ENGL 4052	Writing Fiction for Publication	3
ENGL 4053	Writing Non-fiction for Publication	3
	Electives from the following	9-12
	English (at least 3 hours must be 3000 or 4000 level)	3-12
COMM 2275	Screenwriting	3
ENGL 4055	Writing Genre Fiction	3
THEA 4800	Playwriting	1-3

PHILOSOPHY

PHILOSOPHY

Major, Bachelor of Arts Degree

(42-325)

Students who complete a major in Philosophy will use the knowledge and skills obtained to:

- Demonstrate knowledge and understanding of the major writings of the eminent philosophers of the classical period and the modern period (16-18th century).
- Demonstrate knowledge and understanding of how philosophical ideas have evolved through the history of philosophy.
- Demonstrate knowledge and understanding of the major theories of ethics (such as virtue ethics, consequentialism, utilitarianism, deontological ethics, etc.) as well as the writings of philosophers such as Plato, Aristotle, Hume, Kant, etc.
- Demonstrate practical competence in applying the techniques of formal and informal logic for evaluating arguments.

		Sem. Hours
MAJOR REQUIREMENTS		33
GEPHIL 1000	Introduction to Philosophy	3
PHIL 1400	Deductive Logic, 3 or	3
GEPHIL 1410	Critical Thinking, 3	3
GEPHIL 2300	Ethics.	3
PHIL 3120	Hist. of Phil. I: Ancient Thought	3
PHIL 3130	Hist. of Phil. II: Enlightenment Thought	3
PHIL 3660	Studies in Literature & Philosophy	3
¹⁰ PHIL 4250	Special Projects in Philosophy.	3
PHIL 4600	Special Topics in Philosophy	3
PHIL 4710	Philosophy of Religion.	3
Electives from the following		6
PHIL 1400	Deductive Logic, 3 or	3
GEPHIL 1410	Critical Thinking, 3	3
PHIL 3500	Aesthetics.	3
PHIL 4600	Special Topics in Philosophy	3
<i>(may be taken a second time with different topic to satisfy elective requirement)</i>		
PHIL 3660	Studies in Literature & Philosophy	3
<i>(may be taken a second time with different topic to satisfy elective requirement)</i>		
PHIL 3800	Philosophy of Science & Technology	3
GENERAL EDUCATION REQUIREMENT		36
All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:		
GEPHIL 1000	Introduction to Philosophy	(3)
GEPHIL 2300	Ethics.	(3)
MODERN LANGUAGE REQUIREMENT		6-9
Refer to Bachelor's Degree Requirements section for fulfillment options.		
FREE ELECTIVES		42-45
MINIMUM TOTAL		120
¹⁰ Competency 10 course		

PHILOSOPHY

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (317)

		Sem. Hours
MINOR REQUIREMENTS		21
GEPHIL 1000	Introduction to Philosophy	3
GEPHIL 2300	Ethics	3
PHIL 3120	History of Philosophy I: Ancient Thought	3
PHIL 3130	History of Phil. II: Enlightenment Thought	3
PHIL 1400	Deductive Logic , 3 or	3
GEPHIL 1410	Critical Thinking, 3	3
Electives in philosophy		6

GOVERNMENT, INTERNATIONAL STUDIES, AND LANGUAGES

GOVERNMENT

POLITICAL SCIENCE

Major, Bachelor of Arts Degree (42-425)

The graduate with a Bachelor of Arts degree in Political Science will use the knowledge and skills obtained in the program to:

- Understand individual rights and responsibilities in a democratic system.
- Understand and explain the complexities of politics in an international

community.

- Comprehend alternative perspectives on political values and behavior, political cultures, institutions, policy making, theory, jurisprudence, and civil liberties and rights.
- Think critically and to construct logical arguments concerning institutions and processes of government and contemporary public policy issues.
- Communicate effectively about politics in both written and oral forms.
- Prepare for successful careers in public, private and non-profit service sector.
- Qualify for post-graduate education.

		Sem. Hours
MAJOR REQUIREMENTS		36

GEPOLS 1500	Introduction to Politics	3
GEPOLS 1510	American Government	3
POLS 2520	Comparative Govt. & Politics, 3 or	3
GEPOLS 2530	World Politics, 3	3
POLS 2540	Survey of Political Theory	3
POLS 3560	Research Methods in Political Science	3
¹⁰ POLS 4601	Senior Seminar in Political Science	3
Electives in political science		9

Students must take one class from each of the three (3) areas not chosen for their area of emphasis. POLS 4590, 4591, 4592 and 1244 do not fulfill this requirement. Students must earn twelve (12) hours of upper-level (3000/4000) credit in their major and thirty (30) hours overall. Choose major electives accordingly.

Select from one of the following areas of emphasis.9

Area 1 American Politics

POLS 1244	Workshop in Political Science	1-3
GEPOLS 2511	State Government	3
POLS 2550	Political Parties & Interest Groups	3
POLS 2580	Public Law & Judicial Process	3
POLS 3550	Public Opinion & Mass Media	3
POLS 3551	Race & Ethnic Politics in the United States	3
POLS 4511	Public Policy	3
POLS 4552	Legislative Politics	3
POLS 4555	The American Presidency	3
POLS 4570	Public Administration	3
POLS 4571	Municipal Administration	3
POLS 4590	Special Projects in Political Science	1-6
POLS 4591	Internship in Political Science	1-6
POLS 4592	Problems in National, State or Local Government	1-3

Area 2 Public Law and Theory

POLS 2580	Public Law & Judicial Process	3
GEPOLS 2581	Trial Advocacy	3
POLS 3541	Contemporary Political Theory	3
POLS 3551	Race & Ethnic Politics in U.S.	3
POLS 4530	International Law	3
POLS 4580	American Constitutional Law	3
POLS 4581	Civil Rights & Liberties	3
POLS 4583	First Amendment	3
POLS 4590	Special Projects in Political Science	1-6
POLS 4591	Internship in Political Science	1-6

Area 3 Comparative Politics

POLS 2520	Comparative Gov. & Politics	3
POLS 3520	Asian Gov. & Politics	3
POLS 3521	Latin American Gov. & Politics	3
GEPOLS 3522	Modern East Asia	3
POLS 3523	Modern Sub-Saharan Africa	3
POLS 3553	Women & Politics	3
POLS 4511	Public Policy	3
POLS 4520	Prin. of International Development	3
POLS 4521	Culture & Politics of the Middle East	3
POLS 4550	Politics in Europe	3
POLS 4590	Special Projects in Political Science	1-6
POLS 4591	Internship in Political Science	1-6

Area 4 International Relations

GEPOLS 2535	Model United Nations	3
GEPOLS 2530	World Politics	3
POLS 3530	International Organizations	3

POLS	3531	Five Wars of Globalization	3
POLS	3541	Contemporary Political Theory	3
POLS	4520	Prin. of International Development	3
POLS	4530	International Law	3
POLS	4531	American Foreign Policy	3
POLS	4532	International Relations of East Asia	3
POLS	4590	Special Projects in Political Science	1-6
POLS	4591	Internship in Political Science	1-6

GENERAL EDUCATION REQUIREMENTS 30-33

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GEPOLS	1500	Introduction to Politics	(3)
GEPOLS	1510	American Government	(3)
GEPOLS	2535	Model United Nations (if chosen for Area 4)	(3)
GEPOLS	2581	Trial Advocacy (if chosen for Area 2)	(3)
GEModern Language			(3)

MODERN LANGUAGE REQUIREMENT Refer to Bachelor's Degree Requirements section for fulfillment options. 6-9

FREE ELECTIVES 42-48

MINIMUM TOTAL 120

¹⁰Competency 10 course

POLITICAL SCIENCE

Major, Bachelor of Science Degree (43-426)

The graduate with a Bachelor of Science degree in Political Science will use the knowledge and skills obtained in the program to:

- Understand individual rights and responsibilities in a democratic system.
- Understand and explain the complexities of politics in an international community.
- Comprehend alternative perspectives on political values and behavior, political cultures, institutions, policy making, theory, jurisprudence, and civil liberties and rights.
- Think critically and to construct logical arguments concerning institutions and processes of government and contemporary public policy issues.
- Communicate effectively about politics in both written and oral forms.
- Prepare for successful careers in public, private and non-profit service sector.
- Qualify for post-graduate education.

Sem. Hours

MAJOR REQUIREMENTS 36

GEPOLS	1500	Introduction to Politics	3
GEPOLS	1510	American Government	3
POLS	2520	Comparative Govt. & Politics, 3 or	
GEPOLS	2530	World Politics, 3	3
POLS	2540	Survey of Political Theory	3
POLS	3560	Research Methods in Political Science	3
¹⁰ POLS	4601	Senior Seminar in Political Science	3
		Electives in political science	9

Students must take one class from each of the three (3) areas not chosen for their area of concentration. POLS 1244, POLS 4590, POLS 4591 and POLS 4592 do not fulfill this requirement.

Students must earn twelve (12) hours of upper-level (3000/4000) credit in their major and thirty (30) hours overall. Choose major electives accordingly.

Electives from one of the following areas 9

Area 1 American Politics

POLS	1244	Workshop in Political Science	1-3
GEPOLS	2511	State Government	3
POLS	2550	Political Parties & Interest Groups	3
POLS	2580	Public Law & Judicial Process	3
POLS	3550	Public Opinion & Mass Media	3
POLS	3551	Race & Ethnic Politics in the United States	3

POLS	4511	Public Policy	3
POLS	4552	Legislative Politics	3
POLS	4555	The American Presidency	3
POLS	4570	Public Administration	3
POLS	4571	Municipal Administration	3
POLS	4590	Special Projects in Political Science	1-6
POLS	4591	Internship in Political Science	1-6
POLS	4592	Problems in National, State or Local Government	1-3

Area 2 Public Law and Theory

POLS	2580	Public Law & Judicial Process	3
GEPOLS	2581	Trial Advocacy	3
POLS	3541	Contemporary Political Theory	3
POLS	3551	Race & Ethnic Politics in U.S.	3
POLS	4530	International Law	3
POLS	4580	American Constitutional Law	3
POLS	4581	Civil Rights & Liberties	3
POLS	4583	First Amendment	3
POLS	4590	Special Projects in Political Science	1-6
POLS	4591	Internship in Political Science	1-6

Area 3 Comparative Politics

POLS	2520	Comparative Gov. & Politics	3
POLS	3520	Asian Gov. & Politics	3
POLS	3521	Latin American Gov. & Politics	3
GEPOLS	3522	Modern East Asia	3
POLS	3523	Modern Sub-Saharan Africa	3
POLS	3553	Women & Politics	3
POLS	4511	Public Policy	3
POLS	4520	Prin. of International Development	3
POLS	4521	Culture & Politics of the Middle East	3
POLS	4550	Politics in Europe	3
POLS	4590	Special Projects in Political Science	1-6
POLS	4591	Internship in Political Science	1-6

Area 4 International Relations

GEPOLS	2530	World Politics	3
GEPOLS	2535	Model United Nations	3
POLS	3530	International Organizations	3
POLS	3531	Five Wars of Globalization	3
POLS	3541	Contemporary Political Theory	3
POLS	4520	Prin. of International Development	3
POLS	4530	International Law	3
POLS	4531	American Foreign Policy	3
POLS	4532	International Relations of East Asia	3
POLS	4590	Special Projects in Political Science	1-6
POLS	4591	Internship in Political Science	1-6

GENERAL EDUCATION REQUIREMENTS 33-36

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GEPOLS	1500	Introduction to Politics	(3)
GEPOLS	1510	American Government	(3)
GEPOLS	2535	Model United Nations (if chosen for Area 4)	(3)
GEPOLS	2581	Trial Advocacy (if chosen for Area 2)	(3)

FREE ELECTIVES 48-51

MINIMUM TOTAL 120

¹⁰Competency 10 course

POLITICAL SCIENCE

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (427)

Sem. Hours

MINOR REQUIREMENTS 21

GEPOLS	1500	Introduction to Politics	3
GEPOLS	1510	American Government	3
POLS	2540	Survey of Political Theory	3

One course from each of the following areas 12
 Must include at least one upper-level (3000/4000) course
 to meet graduation requirements.

Area 1 American Politics

POLS	1244	Workshop in Political Science	1-3
GE	POLS	2511 State Government	3
POLS	2550	Political Parties & Interest Groups	3
POLS	2580	Public Law & Judicial Process	3
POLS	3550	Public Opinion & Mass Media	3
POLS	4511	Public Policy	3
POLS	4552	Legislative Politics	3
POLS	4555	The American Presidency	3
POLS	4570	Public Administration	3
POLS	4571	Municipal Administration	3
POLS	4590	Special Projects in Political Science	1-6
POLS	4591	Internship in Political Science	1-6
POLS	4592	Problems in National, State or Local Government	1-3

Area 2 Public Law and Theory

POLS	2580	Public Law & Judicial Process	3
GE	POLS	2581 Trial Advocacy	3
POLS	3541	Contemporary Political Theory	3
POLS	3551	Race & Ethnic Politics in U.S.	3
POLS	4530	International Law	3
POLS	4580	American Constitutional Law	3
POLS	4581	Civil Rights & Liberties	3
POLS	4583	First Amendment	3
POLS	4590	Special Projects in Political Science	1-6
POLS	4591	Internship in Political Science	1-6

Area 3 Comparative Politics

POLS	2520	Comparative Gov. & Politics	3
POLS	3520	Asian Gov. & Politics	3
POLS	3521	Latin American Gov. & Politics	3
GE	POLS	3522 Modern East Asia	3
POLS	3523	Modern Sub-Saharan Africa	3
POLS	3553	Women & Politics	3
POLS	4511	Public Policy	3
POLS	4520	Prin. of International Development	3
POLS	4521	Culture & Politics of the Middle East	3
POLS	4550	Politics in Europe	3
POLS	4590	Special Projects in Political Science	1-6
POLS	4591	Internship in Political Science	1-6

Area 4 International Relations

GE	POLS	2530 World Politics	3
GE	POLS	2535 Model United Nations	3
POLS	3530	International Organizations	3
POLS	3531	Five Wars of Globalization	3
POLS	3541	Contemporary Political Theory	3
POLS	4520	Prin. of International Development	3
POLS	4530	International Law	3
POLS	4531	American Foreign Policy	3
POLS	4532	International Relations of East Asia	3
POLS	4590	Special Projects in Political Science	1-6
POLS	4591	Internship in Political Science	1-6

INTERNATIONAL STUDIES

INTERNATIONAL STUDIES

Major, Bachelor of Arts Degree
 (42-563)

The graduate with a Bachelor of Arts degree in International Studies will use the knowledge and skills obtained in the program to:

- Develop an awareness of how the world's systems are interdependent and how local economic and social patterns have a global impact beyond their effect on individual lives.
- Understand and be able to analyze the critical topics in international affairs and global issues.
- Demonstrate knowledge of various social movements and organizations that have created and are creating goals and values that transcend national cultures and ideologies.

- Communicate program-specific knowledge effectively both verbally and in writing.
- Demonstrate the ability to communicate effectively at the intermediate level in a foreign language.
- Employ the discipline's theories, approaches, and methods in order to examine and understand past, present, and possible future international interactions.
- Develop sensitivity and respect for other cultures and an ability to operate with civility in a complex, diverse and globalized world.

Sem. Hours

MAJOR REQUIREMENTS 42

ANTH	4870	Comparative Cultures	3
GEOG	2246	Economic Geography	3
GE	IS	1000 Introduction to International Studies	3
¹⁰	IS	4950 Senior Seminar	3
POLS	2520	Comparative Government & Politics	3
GE	POLS	2530 World Politics	3
REL	3210	Comparative World Religions	3
SOC	3885	Globalization & the Future	3
Electives in a Content specialization (6 upper-level required)			12
Electives in Geographic specialization			6

Content Specializations

Content 1 The Global Society & Culture

ANTH	3850	Peoples of the World	3
ART	4850	Twentieth Century Art & Architecture	3
CJ	3020	Comparative Justice Systems	3
COMM	4260	Global Media Systems	3
ENGL	2270	Fiction by Women Around the World	3
GEOG	4270	World Political Geography	3
GISL	4244	Cross-Cultural Cinema	3
GE	HIST	2402 History of the Modern World	3
PHIL	3130	Hist. of Phil. II: Enlightenment Thought	3
POLS	3541	Contemporary Political Theory	3
POLS	3553	Women & Politics	3
REL	2310	World Views & Values	3
REL	2510	Gender & Religions	3
SOC	3810	Culture & Society	3
SOC	4850	Work & the Modern Society	3

Content 2 International Relations, Peace & Justice

CJ	2405	International Policing	3
CJ	3398	International Human Rights & CJ	3
CJ	4352	International Criminal Law	3
CJ	4444	Terrorism	3
GEOG	4270	World Political Geography	3
HIST	4325	History of American Diplomacy	3
HIST	4416	Europe in Crisis: 1900-1945	3
HIST	4418	War & Modern Society	3
HIST	4432	The Holocaust	3
POLS	3530	International Organizations	3
POLS	4530	International Law	3
POLS	4531	American Foreign Policy	3
POLS	4532	International Relations of East Asia	3

Content 3 International Political Economy & Policy Studies

GE	AGRI	2130	Global Agriculture	3
COMM	4260	Global Media Systems	3	
ECON	1011	Principles of Microeconomics	3	
ECON	4050	Comparative Economic Systems	3	
GEOG	4270	World Political Geography	3	
INDM	4010	Current Issues in Industry	3	
POLS	3530	International Organizations	3	
POLS	4511	Public Policy	3	
POLS	4520	Principles of International Development	3	
POLS	4531	American Foreign Policy	3	
SOC	2845	Social Inequality	3	

Content 4 Human Development & the Physical Environment

EASC	3010	Environmental Geology	3
ECON	4050	Comparative Economic Systems	3
GEOG	3275	Climatology	3
GEOG	4265	Urban Geography	3

GEOG	4270	World Political Geography	3
POLS	3530	International Organizations	3
POLS	3553	Women & Politics	3
POLS	4520	Principles of International Development	3
REL	2310	World Views & Values	3
REL	2510	Gender & Religions	3
SOC	2845	Social Inequality	3
SOC	3810	Culture & Society	3
SOC	3815	Urban Sociology	3
SOC	3890	Criminology	3
SOC	4850	Work & the Modern Society	3

Geographic Specializations

Geographic 1 African Studies

GEOG	3310	Geography of Africa	3
GEOG	3314	Geography of North Africa/SW Asia	3
HIST	4471	The African Diaspora	3
HIST	4472	African History	3
HIST	4473	History of South Africa	3
POLS	3523	Modern Sub-Saharan Africa	3
POLS	4520	Principles of International Development	3
REL	2410	Religions of Africa	3

Geographic 2 Asian Studies

GEOG	3314	Geography of North Africa/SW Asia	3
GEOG	4230	Geography of Asia	3
HIST	4461	The Rise of Chinese Civilization	3
HIST	4462	The Rise of Japanese Civilization	3
HIST	4463	Modern China	3
GEOPOLS	3522	Modern East Asia	3
POLS	4520	Principles of International Development	3
POLS	4532	International Relations of East Asia	3

Geographic 3 European Studies

GEOG	3200	Geography of Europe	3
GEOG	4235	Geography of the Former Soviet Union	3
HIST	4412	Wars of Reformation & Religion	3
HIST	4413	The Age of Absolutism & Enlightenment	3
HIST	4414	Age of French Revolution & Napoleon	3
HIST	4415	Revolutionary Europe	3
HIST	4416	Europe in Crisis: 1900-1945	3
HIST	4423	Modern Britain & the Empire	3
HIST	4431	Modern Germany & the Nazi Experience	3
HIST	4442	Modern Russia & the Soviet Union	3
HIST	4451	Imperial Spain 1469-1714	3
PHIL	3130	Hist. of Phil. II: Enlightenment Thought	3
POLS	4520	Principles of International Development	3
POLS	4550	Politics in Europe	3

Geographic 4 Latin American Studies

GEOG	3225	Geography of Latin America	3
HIST	4451	Imperial Spain 1469-1714	3
HIST	4452	Modern Latin America	3
HIST	4453	History of Mexico	3
POLS	3521	Latin American Government & Politics	3
POLS	4520	Principles of International Development	3

Geographic 5 Middle East Studies

GEOG	3314	Geography of North Africa/SW Asia	3
HIST	4481	Traditional Middle East	3
HIST	4482	The Modern Middle East	3
POLS	4520	Principles of International Development	3
POLS	4521	Culture & Politics of the Middle East	3

GENERAL EDUCATION REQUIREMENTS30-33

GEIS	1000	Introduction to International Studies	(3)
GEPOLS	2530	World Politics	(3)
GEHIST	2402	History of the Modern World, 3 or	
GEAGRI	2130	Global Agri., 3 (if chosen in content area)	(3)
GE	Modern Language		(3)

MODERN LANGUAGE REQUIREMENT 12

All international studies majors must demonstrate proficiency in a modern language other than their native language. This

requirement can be satisfied in one of the following ways: a) Complete 12 credit hours of one modern language with a grade of C or better in each course; b) Test and receive a ranking of "intermediate" (equivalent to 2 years or 12 hours) in a modern language; c) Test and receive a ranking of "intermediate" in both the oral and written portions of the ACTFL test in a modern language.

INTERNATIONAL EXPERIENCE REQUIREMENT

All international studies majors must satisfy one of the following: a) Participate in a study abroad program approved by UCM; b) Participate in an international internship approved by the International Studies Director and sponsored by a department at UCM; c) Participate in an international service learning program approved by the International Studies Director.

FREE ELECTIVES33-36

MINIMUM TOTAL 120

¹⁰Competency 10 course

INTERNATIONAL STUDIES

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (489)

Sem. Hours

MINOR REQUIREMENTS 24

One modern (foreign) language	6
GEIS 1000 Introduction to International Studies	3
*Elective from the following	3
ANTH 4870 Comparative Cultures	3
GEOG 2212 World Geography	3
POLS 2520 Comparative Gov. & Politics	3
GEPOLS 2530 World Politics	3
REL 3210 Comparative World Religions	3
SOC 3885 Globalization & the Future	3

*Electives from one Content specialization, 6 AND
 *Electives from one Geographic specialization, 6 12
 (ISP 4000 Study Abroad may fulfill 1-12 hours of Content and Geographic electives)

*Must include at least one upper-level (3000/4000) course to meet graduation requirements.

Content Specializations

Content 1 The Global Society & Culture

ANTH	3850	Peoples of the World	3
ART	4850	Twentieth Century Art & Architecture	3
CJ	3020	Comparative Justice Systems	3
COMM	4260	Global Media Systems	3
ENGL	2270	Fiction by Women Around the World	3
GEOG	4270	World Political Geography	3
GISL	4244	Cross-Cultural Cinema	3
GEHIST	2402	History of the Modern World	3
PHIL	3130	Hist. of Phil. II: Enlightenment Thought	3
POLS	3541	Contemporary Political Theory	3
POLS	3553	Women & Politics	3
REL	2310	World Views & Values	3
REL	2510	Gender & Religions	3
SOC	3810	Culture & Society	3
SOC	4850	Work & the Modern Society	3

Content 2 International Relations, Peace & Justice

CJ	2405	International Policing	3
CJ	3398	International Human Rights & CJ	3
CJ	4352	International Criminal Law	3
CJ	4444	Terrorism	3
GEOG	4270	World Political Geography	3
HIST	4325	History of American Diplomacy	3
HIST	4416	Europe in Crisis: 1900-1945	3
HIST	4418	War & Modern Society	3
HIST	4432	The Holocaust	3

POLS	3530	International Organizations	3
POLS	4530	International Law	3
POLS	4531	American Foreign Policy	3
POLS	4532	International Relations of East Asia	3

Content 3 International Political Economy & Policy Studies

AGRI	2130	Global Agriculture	3
COMM	4260	Global Media Systems	3
ECON	1011	Principles of Microeconomics	3
ECON	4050	Comparative Economic Systems	3
GEOG	4270	World Political Geography	3
INDM	4010	Current Issues in Industry	3
POLS	3530	International Organizations	3
POLS	4511	Public Policy	3
POLS	4520	Principles of International Development	3
POLS	4531	American Foreign Policy	3
SOC	2845	Social Inequality	3

Content 4 Human Development & the Physical Environment

EASC	3010	Environmental Geology	3
ECON	4050	Comparative Economic Systems	3
GEOG	3275	Climatology	3
GEOG	4265	Urban Geography	3
GEOG	4270	World Political Geography	3
POLS	3530	International Organizations	3
POLS	3553	Women & Politics	3
POLS	4520	Principles of International Development	3
REL	2310	World Views & Values	3
REL	2510	Gender & Religions	3
SOC	2845	Social Inequality	3
SOC	3810	Culture & Society	3
SOC	3815	Urban Sociology	3
SOC	3890	Criminology	3
SOC	4850	Work & the Modern Society	3

Geographic Specializations**Geographic 1 African Studies**

GEOG	3310	Geography of Africa	3
GEOG	3314	Geography of North Africa/SW Asia	3
HIST	4471	The African Diaspora	3
HIST	4472	African History	3
HIST	4473	History of South Africa	3
POLS	3523	Modern Sub-Saharan Africa	3
POLS	4520	Principles of International Development	3
REL	2410	Religions of Africa	3

Geographic 2 Asian Studies

GEOG	3314	Geography of North Africa/SW Asia	3
GEOG	4230	Geography of Asia	3
HIST	4461	The Rise of Chinese Civilization	3
HIST	4462	The Rise of Japanese Civilization	3
HIST	4463	Modern China	3
GPOLS	3522	Modern East Asia	3
POLS	4520	Principles of International Development	3
POLS	4532	International Relations of East Asia	3

Geographic 3 European Studies

GEOG	3200	Geography of Europe	3
GEOG	4235	Geography of the Former Soviet Union	3
HIST	4412	Wars of Reformation & Religion	3
HIST	4413	The Age of Absolutism & Enlightenment	3
HIST	4414	Age of French Revolution & Napoleon	3
HIST	4415	Revolutionary Europe	3
HIST	4416	Europe in Crisis: 1900-1945	3
HIST	4423	Modern Britain & the Empire	3
HIST	4431	Modern Germany & the Nazi Experience	3
HIST	4442	Modern Russia & the Soviet Union	3
HIST	4451	Imperial Spain 1469-1714	3
PHIL	3130	Hist. of Phil. II: Enlightenment Thought	3
POLS	4520	Principles of International Development	3
POLS	4550	Politics in Europe	3

Geographic 4 Latin American Studies

GEOG	3225	Geography of Latin America	3
HIST	4451	Imperial Spain 1469-1714	3

HIST	4452	Modern Latin America	3
HIST	4453	History of Mexico	3
POLS	3521	Latin American Government & Politics	3
POLS	4520	Principles of International Development	3

Geographic 5 Middle East Studies

GEOG	3314	Geography of North Africa/SW Asia	3
HIST	4481	Traditional Middle East	3
HIST	4482	The Modern Middle East	3
POLS	4520	Principles of International Development	3
POLS	4521	Culture & Politics of the Middle East	3

LEGAL STUDIES

Minor for a Bachelor's Degree
(555)

Sem. Hours

MINOR REQUIREMENTS 21

*CJ	2300	Criminal Law & Procedure	3
BLAW	2720	Legal Environment Of Business	3
POLS	2580	Public Law & Judicial Process	3
Electives from the following 12			

No more than 6 hours from any one discipline and at least 6 hours must be upper-level (3000/4000)

*ACCT	3130	Introduction To Income Tax	3
*ACCT	4130	Advanced Income Tax	3
AE	1240	LSAT Test Preparation	1
AVIA	4090	Aviation Law	3
BLAW	2750	Legal & Ethical Decision Making in the Workplace	3
*BLAW	3721	Law Of Business Transactions	3
*BLAW	4740	Employment Law	3
COMM	2340	Argumentation & Debate	3
*COMM	4250	The Law & Digital Media	3
*CJ	3310	Law of Corr. & Prisoners Rights	3
CJ	3398	International Human Rights & CJ	3
CJ	4300	Critique Crim. Law & Crim. Proc.	3
CJ	4302	Evidence & Courtroom Procedure	3
*CJ	4321	Civil Remedies in CJ	3
*CJ	4330	CJ & the Mental Health Systems	3
CJ	4352	International Criminal Law	3
CJ	4390	The Death Penalty	3
CJ	4701	Juvenile Law & Policy	3
*EDSP	4700	IEP & the Law	3
FIN	4804	Emp. Benefits & Ret. Plan.	3
HM	4840	Legal Aspects of Hotel & Res. Mgt.	3
INDM	4015	Legal Aspects of Industry	3
PE	4740	Legal Liability in Fitness/Wellness, Physical Education, Recreation, & Sports Settings	3
PHIL	1400	Deductive Logic	3
PHIL	1410	Critical Thinking	3
PHIL	2300	Ethics	3
PHIL	2581	Trial Advocacy	3
POLS	4530	International Law	3
POLS	4580	American Constitutional Law	3
POLS	4581	Civil Rights & Liberties	3
POLS	4583	First Amendment	3
*REL	4520	Legal Issues & Religions	3
*SAFE	4020	Legal Aspects of Safety & Health	3
*SAFE	4425	Safety & Health Legislation & Standards	3
*SAFE	4430	Workers Comp Legislation	3

*This course has a prerequisite not listed in the program; see specific class listing in the catalog for additional requirements.

LANGUAGES

Languages Statement of Policy

A placement examination determines the level of a student's initial enrollment in elementary and intermediate language courses. If a student enrolls in **GEFREN 1202** or **GEGER 1302** or **GESPAN 1602** and completes the class with a grade of C or better, the student may be eligible for validated credit for **GEFREN 1201** or **GEGER 1301** or **GESPAN 1601**. If a student enrolls in **GEFREN 2201** or **GEGER 2301** or **GESPAN 2601** or a higher level class and completes the class with a grade of C or better, the student may be eligible for validated credit for **GEFREN 1201** and **GEFREN 1202** or **GEGER 1301** and **GEGER 1302** or **GESPAN 1601** and **GESPAN 1602**. Other restrictions may apply. For further information contact the Chair of the Department of Government, International Studies, and Languages.

Requirements for Certification in Languages

For certification as a modern language teacher in Missouri, grades K-12, 30 semester hours are required in the language taught, or 27 hours in the language taught plus two or more high school units in that language. Certification for grades K-9 only requires 21 semester hours in the language taught, or 18 semester hours in the language taught plus two or more high school units in that language.

MODERN LANGUAGES

Major, Bachelor of Arts Degree
(42-574)

The graduate with a Bachelor of Arts in Modern Languages will use the knowledge and skills obtained in the program to:

- Use the target language orally and in writing in a variety of informal and formal situations
- Comprehend a variety of authentic materials in the target language for personal and/or professional use
- Demonstrate knowledge of linguistic elements, pronunciation and intonation, grammar, forms of discourse, and vocabulary to satisfy a variety of everyday tasks
- Engage in socially appropriate forms of communication
- Demonstrate an understanding of the target cultures in their geographical and historical contexts, including perspectives, practices and products.

Additionally, students pursuing the Education Concentration within the Professional Application Area will use the knowledge and skills gained in the program to:

- Teach essential elements of the target language at elementary and/or secondary school levels.

Sem. Hours

MAJOR REQUIREMENTS39-69

Students select from ONE of the two following options:

Option 1 Language and Culture

¹⁰GISL 4244 Cross-Cultural Cinema3
36 hours of ONE language beyond Elementary II36*

Option 2 Professional Applications

33 hours of ONE language beyond Elementary II33*
Languages in the Professions/Translation (ML 4050), 3 OR
Methods of Teaching Foreign Languages (ML 4054), 33
Select ONE Concentration listed. 29-33

Marketing Concentration - 33 hours

MKT 3405 Marketing Policy 3
MKT 3430 Professional Sales 3
MKT 3435 Internship in Marketing 6
MKT 3480 Consumer Behavior 3
**MKT 4460 International Marketing 3
¹⁰GISL 4244 Cross-Cultural Cinema 3
MGT 3315 Management of Organizations 3
Electives from the following 9
BLAW 2720 Legal Environment of Business3
GECON1010 Principles of Macroeconomics3
MKT 3410 Retail Management3

MKT 3420 Principles of Advertising3
MKT 3450 Digital Marketing3
MKT 3460 Advanced Professional Sales3
MKT 4454 Sports Marketing3

** Departmental consent required

Criminal Justice Concentration - 33 hours

GE CJ 1000 Introduction to Criminal Justice 3
CJ 2300 Criminal Law & Procedure 3
CJ 3006 Corrections 3
CJ 3010 Policing a Democratic Society 3
CJ 3020 Comparative Justice Systems 3
CJ 4503 Dynamics of Criminal Behavior 3
CJ 4602 Internship in Criminal Justice 3
¹⁰GISL 4244 Cross-Cultural Cinema 3
Electives in Criminal Justice 9

Hospitality Management Concentration - 29 hours

¹⁰GISL 4244 Cross-Cultural Cinema 3
HM 1800 Introduction to Hospitality 3
HM 2830 Hospitality Management Case Analysis (1 credit, take 3 times) 3
HM 3845 Hospitality Operations Analysis 3
HM 4810 Internship 5
HM 4840 Legal Aspects of Hotel & Restaurant Mgt. 3
ACCT 2100 Survey of Accounting 3
FOOD 3333 Food Systems Management 3
MGT 3315 Management of Organizations 3

Public Relations Concentration - 33 hours

COMM 2620 Introduction to Public Relations 3
COMM 2625 Writing & Editing for Public Relations 3
COMM 3010 Interpersonal Communication 3
COMM 3100 Communication Research Methods 3
**GE COMM3340 Intercultural Communication 3
COMM 3620 Strategic Planning & Research for PR 3
COMM 4605 PR Internship 3
COMM 4670 Strategic Crisis Communication 3
COMM 4680 Advanced PR Writing 3
¹⁰GISL 4244 Cross-Cultural Cinema 3
POLS 4520 Principles of International Development 3

** Instructor consent required

Education Concentration (for K-12 Certification) - 33 hours

* See "Teacher Education" in this Catalog for more information on Certification requirements, Admission to the Teacher Education Program, and Admission to the Professional Education Semester/Student Teaching.

PROFESSIONAL EDUCATION REQUIREMENTS 33

CD 2000 The Bases of Speech & Language 2
EDFL 2100 Foundations of Education 2
GE EDFL 2240 Educational Psychology. 3
EDFL 3500 Secondary Teaching & Behavioral Mgt. 3
EDFL 4210 Teaching Reading in Secondary School 2
EDFL 4300 Educational Assessment & Evaluation 2
EDSP 2100 Education of the Exceptional Child 2
FLDX 2150 Introductory Field Experience 1
FLDX 3550 Practicum in Secondary Instruction 1
GEPSY 4230 Psy. of Adolescence 3
Student Teaching semester
¹⁰FLDX 4468 Student Teaching Secondary II 4
FLDX 4495 Student Teaching Elementary I 8

GENERAL EDUCATION REQUIREMENTS39-42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements.

GENERAL EDUCATION REQUIREMENTS for Ed. Concentration. . .39-42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in (I) are counted in the major or other hours and not in the general education hours. The following general education classes are required by the Education Concentration in this major:

GEHIST 1350 History of US to 1877, 3 or
GEHIST 1351 History US from 1877, 33
GEPOLS 1510 American Government3
GEPSY 4230 Psy. of Adolescence (3)

Minimal computer literacy and proficiency in media technology (required)

prior to student teaching) is addressed in the major sequence, in ML 4054 Methods of Teaching Foreign Languages.

FREE ELECTIVES9-39

MINIMUM TOTAL 120

¹⁰Competency 10 course

MODERN LANGUAGES

Minor for a Bachelor's Degree (569)

Sem. Hours

MINOR REQUIREMENTS 21

21 hours of ONE language beyond Elementary II 21
Must include at least one upper-level (3000/4000) course to meet graduation requirements.

WORLD LANGUAGES AND CULTURES

Minor for a Bachelor's Degree (573)

Sem. Hours

MINOR REQUIREMENTS 27

Students must take courses in 3 different languages.

Two courses in one language (CHIN, FREN, GER, SPAN, ML) 6

Two courses in a second language (CHIN, FREN, GER, SPAN, ML) 6

*Five courses in a third language with at least one upper-level (3000/4000) course (FREN, GER, SPAN, ML) 15

Non-native speakers of English may count 3000 or 4000 level English courses as one of their three languages.

Native speakers of languages offered in the Department of Government, International Studies, and Languages must substitute 3000-level English courses in their language.

*Must include at least one upper-level (3000/4000) course to meet graduation requirements.

HISTORY AND ANTHROPOLOGY

The Department of History and Anthropology
Wood 136
660-543-4404
ucmo.edu/hist-anth

**Department of History and Anthropology
Statement of Policy**

A course with a grade lower than a C will not be allowed to fulfill a major or minor requirement in any program offered by the Department of History and Anthropology.

HISTORY

Major, Bachelor of Arts Degree (42-420)

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

- Demonstrate proficiency in content knowledge equivalent to introductory surveys in U.S. and World history.
- Read history critically for comprehension of historical chronology and interpretation.
- Write an analytical research paper based upon original research in primary and secondary sources.
- Think critically about the past, including ways to integrate historical knowledge with other fields of study.

Sem. Hours

MAJOR REQUIREMENTS 39

GEHIST	1350	History of the U. S. to 1877	3
GEHIST	1351	History of the U. S. from 1877	3
GEHIST	2400	History of the Early World	3
GEHIST	2401	Hist. of the Early Modern World	3
GEHIST	2402	Hist. of the Modern World	3
SOSC	3010	Writing in Social Sciences	3
¹⁰ HIST	4500	Senior Capstone in History	3
		Upper-level (3000/4000) electives in American history	6
		Upper-level (3000/4000) electives in world history	9
		A minimum of three hours of world history must be non-western history, or HIST 4452 or HIST 4453.	
		Upper-level (3000/4000) elective in history	3

GENERAL EDUCATION REQUIREMENTS 33

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major although only 6 hours of the HIST courses will count as general education:

GEHIST	1350	History of the U. S. to 1877	(3)
GEHIST	1351	History of the U. S. from 1877	(3)
GEHIST	2400	History of the Early World	(3)
GEHIST	2401	Hist. of the Early Modern World	(3)
GEHIST	2402	Hist. of the Modern World	(3)
GE/Modern Language			(3)

MODERN LANGUAGE REQUIREMENT Refer to Bachelor's Degree Requirements section for fulfillment options.6-9

FREE ELECTIVES39-42

MINIMUM TOTAL 120

¹⁰Competency 10 course

HISTORY

Major, Bachelor of Science Degree (43-421)

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

- Demonstrate proficiency in content knowledge equivalent to introductory surveys in U.S. and World history.
- Read history critically for comprehension of historical chronology and interpretation.
- Write an analytical research paper based upon original research in primary and secondary sources.
- Think critically about the past, including ways to integrate historical knowledge with other fields of study.

Sem. Hours

MAJOR REQUIREMENTS 39

GEHIST	1350	History of the U. S. to 1877	3
GEHIST	1351	History of the U. S. from 1877	3
GEHIST	2400	History of the Early World	3
GEHIST	2401	History of the Early Modern World	3
GEHIST	2402	History of the Modern World	3
SOSC	3010	Writing in Social Sciences	3
¹⁰ HIST	4500	Senior Capstone in History	3
		Upper-level (3000/4000) electives in American history	6
		Upper-level (3000/4000) electives in world history	9
		A minimum of three hours of world history must be non-western history, or HIST 4452 or HIST 4453.	
		Upper-level (3000/4000) elective in history	3

GENERAL EDUCATION REQUIREMENTS 36

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major although only 6 hours of the HIST courses will count as general education:

GEHIST	1350	History of the U. S. to 1877	(3)
GEHIST	1351	History of the U. S. from 1877	(3)
GEHIST	2400	History of the Early World	(3)

GEHIST 2401	Hist. of the Early Modern World	(3)
GEHIST 2402	Hist. of the Modern World	(3)
FREE ELECTIVES		45
MINIMUM TOTAL		120

¹⁰Competency 10 course

HISTORY

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (422)

	Sem. Hours
MINOR REQUIREMENTS	20
GEHIST 1350	History of the U. S. to 1877 3
GEHIST 1351	History of the U. S. from 1877 3
GEHIST 2400	History of the Early World 3
GEHIST 2401	History of the Early Modern World 3
GEHIST 2402	History of the Modern World 3
	Upper-level (3000/4000) electives in history 5

ANTHROPOLOGY

ANTHROPOLOGY

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (424)

The graduate with a Bachelor's degree that includes a Minor in Anthropology will use the knowledge and skills obtained in the minor program to:

- Students master an understanding of how and why human beings evolve and adapt both biologically and culturally.
- Students master an understanding of current cultural diversity in the world and the impact of globalization on contemporary non-western populations.
- Students incorporate and apply their knowledge of anthropological methods, theories, and practices in an integrative experience (study abroad, internship, fieldwork or directed research).
- Students develop skills relevant to the profession of anthropology through the preparation of research designs, abstracts, grant proposals, case study analyses, oral presentations, posters and essays.

	Sem. Hours
MINOR REQUIREMENTS	20
GE ANTH1810	Human Prehistory 3
GE ANTH1820	Cultural Anthropology 3
	*Electives from the following 14
ENGL 4110	Linguistics 3
ENGL 4120	Language & Culture 3
	Elective in Sociology 3
	Electives in Anthropology 8-14

*Must include at least one upper-level (3000/4000) course to meet graduation requirements.

SOCIAL SCIENCE

**Department of History and Anthropology
Statement of Policy**

A course with a grade lower than a C will not be allowed to fulfill a major or minor requirement in any program offered by the Department of History and Anthropology.

To be recommended for student teaching by the Department of History and Anthropology, a student with a major or minor in social studies must achieve a cumulative GPA of 2.75 or higher, content GPA of 3.0 or higher, Professional Education GPA of 3.0 or higher with no grade lower than a C.

Accreditation

The Social Studies program is accredited by the National Council for the Social Studies located at 8555 16th Street, Silver Springs, MD 20910; phone 301-588-1800.

SOCIAL STUDIES

Major, Bachelor of Science in Education Degree

Certification to teach social studies in grades 9-12. (41-264)

The graduate with a Bachelor of Science in Education degree with a major in Social Studies will use the knowledge and skills obtained in the program to:

- Demonstrate knowledge of the content areas required for certification in the Social Studies.
- Demonstrate the capacity to provide instruction in the disciplinary fields of the Social Studies.

MAJOR REQUIREMENTS 57

GEGEOG 2212	World Geography 3
GEHIST 1350	History of the U. S. to 1877 3
GEHIST 1351	History of the U. S. from 1877 3
GEPOLS 1510	American Government 3
GEPOLS 2511	State Government 3
GESOC 1800	General Sociology 3
SOSC 3010	Writing in the Social Sciences 3
SOSC 4050	The Social Studies 3
GECON 1010	Principles of Macroeconomics, 3 or
ECON 1011	Principles of Microeconomics, 3 3
	Electives from the following 6
GEHIST 2400	Hist. of the Early World, 3 and
GEHIST 2401	Hist. of the Early Modern World, 3 6
	or
GEHIST 2401	Hist. of the Early Modern World, 3 and
GEHIST 2402	Hist. of the Modern World, 3 6
	Upper-level (3000/4000) elective in SOC or ANTH 3
	Upper-level (3000/4000) electives in American history 6
	Upper-level (3000/4000) elective in world history 6
	Upper-level (3000/4000) elective in geography 3
	Upper-level (3000/4000) electives in at least two of the following:
	GEOG, HIST, POLS, SOC, ANTH, or ECON 6

The program must include at least one course that focuses on a non-western society, nation or region or on the non-western world. A list of the courses which fulfill this requirement is available from the History and Anthropology Department and on file with the academic advisors.

PROFESSIONAL EDUCATION REQUIREMENTS (page 90) 31

EDFL 2100	Foundations of Education 2
GEEDFL 2240	Educational Psychology. 3
EDFL 3500	Secondary Teaching & Behavioral Mgt. 3
EDFL 4210	Teaching Reading in the Sec. School. 2
EDFL 4300	Educational Assessment & Evaluation 2
EDSP 2100	Education of Exceptional Child. 2
FLDX 2150	Introductory Field Experience 1
FLDX 3550	Practicum in Secondary Instruction. 1
GEPSY 4230	Psychology of Adolescence 3
	Student Teaching semester
¹⁰ FLDX 4468	Student Teaching Secondary II 4
FLDX 4595	Student Teaching Secondary I 5
SOSC 4074	Methods of Teaching Social Studies 3

GENERAL EDUCATION REQUIREMENTS 30-33

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major although only 6 hours of the HIST courses will count as general education:

GECTE 2000	Technology & Society 3
GECON 1010	Principles of Macroeconomics . . (if chosen)(3)

GEHIST	1350	History of the U. S. to 1877	(3)
GEHIST	1351	History of the U. S. from 1877	(3)
GEHIST	2400	History of the Early World	(3)
GEHIST	2401	Hist. of the Early Modern World	(3)
GEHIST	2402	Hist. of the Modern World	(3)
GEPSY	4230	Psy. of Adolescence	(3)
GESOC	1800	General Sociology	(3)
ELECTIVES			2
MINIMUM TOTAL			121-124

¹⁰Competency 10 course

SOCIAL STUDIES

Minor, Bachelor of Science in Education Degree

Certification to teach social studies in grades 5-9 is available only with a major in middle school-junior high school. May fulfill an area of concentration requirement for elementary education majors. (418)

			Sem. Hours
MINOR REQUIREMENTS			24-27
GEHIST	1350	History of the U. S. to 1877	3
GEHIST	1351	History of the U. S. from 1877	3
GEHIST	2402	History of the Modern World	3
GEPOLS	1510	American Government	3
GEGEOG	2212	World Geography, 3 or	
GEGEOG	3201	The Cultural Landscape, 3	3
GECON	1010	Principles of Macroeconomics, 3 or	
ECON	1011	Principles of Microeconomics, 3	3
		Upper-level (3000/4000) elective in American history	2-3
		Upper-level (3000/4000) elective in world history	2-3
		2000-4000 level elective in GEOG, POLS, SOC, or ANTH	2-3

AFRICANA STUDIES

AFRICANA STUDIES

Minor for a Bachelor's Degree

			Sem. Hours
(323)			
MINOR REQUIREMENTS			21-22
GEHIST	2410	Introduction to Africana Studies	3
AE	1450	Valuing Differences	1
*ISP	4000	Study Abroad, 3 or	
**HIST	4351	Special Projects in American History, 3 or	
#ENGL	4990	Special Projects in English, 3	3

Africana Studies

Select 12 credit hours from Area A or Area B as a field of concentration. Select 2-3 credit hours from the Area not chosen for concentration for a total of 14-15 credit hours.

Africana Studies Area A

Literary, Geographical, Political and Historical Development

GE MUS	1281	History & Development of Jazz	3
GEOG	3310	Geography of Africa	3
HIST	4309	African American in American History	3
HIST	4471	The African Diaspora	3
HIST	4472	African History	3
+ENGL	3990	Special Topics in English	3
ENGL	4680	African American Literature	3
POLS	3551	Race & Ethnic Politics in the U.S.	3
POLS	4553	20th Cent. African-American Politics	3

Africana Studies Area B

Gender, Culture and Social Issues

GESOC	1800	General Sociology	3
		Electives from the following	9
%ML	1040	Special Projects in Modern Languages	3
REL	2410	Exploring Religions of Africa, the Caribbean, & African-America	3
GESOC	1830	Social Problems	3

SOC	2845	Social Inequality	3
SOC	3815	Urban Sociology	3
SOC	3825	Race & Ethnic Relations	3
GEVGS	2000	Race, Class & Gender	3
*University of Ghana			
**Research & Writing Course in African/African American History			
#Research & Writing Course in African American Literature			
+Research & Writing Course in Survey of Twentieth Century African American Literature			
%Elementary Akan			

SCHOOL OF VISUAL AND PERFORMING ARTS

The School of Visual and Performing Arts is comprised of:

- The Department of Art and Design
- The Department of Music
- The Department of Theatre and Dance

ART AND DESIGN

The Department of Art and Design
 Art Center 120
 660-543-4481
 ucmo.edu/art

NOTE: The University of Central Missouri is an accredited institutional member of the National Association of Schools of Art and Design, 11250 Roger Bacon Dr., Suite 21, Reston, VA, 20190-5248 phone 703-437-0700.

Department of Art and Design Statement of Policy

Students in studio courses in art are required to furnish their own materials except certain studio equipment and some highly specialized materials provided by the Department. All work when completed is under the control of the Department until the end of the academic year. The student is expected to have a representative portfolio of his/her work available for presentation at any time prior to graduation.

Each candidate for a degree may be required to leave with the Department of Art and Design one or more pieces of original work. These are added to the collection of the work of graduates and will form a permanent University collection.

During the sophomore year or during the first semester after transferring from another institution, all candidates for degrees will present a portfolio of work to be reviewed by the faculty for the purpose of acceptance into the Bachelor of Fine Arts program.

During the senior year, all candidates for degrees will present an exhibition of representative work to be reviewed by the faculty and professionals from their field as partial graduation approval. Specific information about reviews and exhibitions may be obtained in the Department of Art and Design office.

ART

Major, Bachelor of Science in Education Degree

Certification to teach art in grades K-12. (41-260)

The graduate with a Bachelor of Science in Education degree in Art will use the knowledge and skills obtained in these programs to:

- Produce innovative and skillful work in visual art and design that demonstrates critical and creative thinking in both product and process and exhibits a consideration of theories, practices and emerging trends in art and design.

- Communicate and support informed and artistically sensitive interpretations and evaluations about their own work as well as visual forms made by others by using perceptual, contextual, critical, and aesthetic concepts that underlie the disciplines of art and design.
- Identify, describe and explain global, contemporary and historical art/design works and exhibit a consideration of their relationship to context and theory.
- Help facilitate a visually rich and culturally sensitive society by describing, explaining and applying the unique and important individual and collaborative artistic contributions made by women and men from diverse racial, geographical and cultural groups.
- Use technology as a resource in creative and critical processes to produce art, as well as to gather and share information about art and design history, aesthetics and art criticism.
- Exhibit evidence of an understanding of the professional practices and ethical standards for employment and long-term success in the graduate's degree program career field.
- Demonstrate in their work an understanding of and a concern for safety, the principles of sustainability, and the environmental impact of the decisions they make as artists and/or designers.
- Employ knowledge of art theories, contexts, and art/design works to serve as precedents to inform the production of art and design.

Sem. Hours

MAJOR REQUIREMENTS 60

ART	1110	Drawing I	3
ART	1120	Drawing II	3
ART	1315	2-D Design	3
ART	1325	Color & Design	3
GEART	1800	Ideas & the Visual Arts	3
ART	1815	Art History Survey I	3
ART	1825	Art History Survey II	3
ART	2412	Ceramics I	3
ART	2420	Sculpture I	3
ART	2511	Painting I	3
ART	2710	Printmaking I	3
ART	3209	Figure Construction	3
ART	3314	Fibers	3
ART	3915	Methods of Teaching Art I: Elementary	3
ART	3920	Methods of Teaching Art II: Secondary	3
ART	4221	Art Theory & Criticism	3
PHOT	1203	Introduction to Photography	3
ART	4850	20th Century Art & Architecture, 3 or	
ART	4860	Contemporary Art & Design, 3	3
Upper-level (3000/4000) concentration in studio art in one of the following areas: drawing, painting, watercolor, sculpture, fibers, printmaking, ceramics			

PROFESSIONAL EDUCATION REQUIREMENTS (page 90) 31

EDFL	2100	Foundations of Education	2
GEEDFL	2240	Educational Psychology	3
EDFL	3500	Secondary Teaching & Behavioral Mgt.	3
EDFL	4210	Teaching Reading in the Sec. School	2
EDFL	4300	Educational Assessment & Evaluation	2
EDSP	2100	Education of Exceptional Child	2
FLDX	2150	Introductory Field Experience	1
FLDX	3550	Practicum in Secondary Instruction	1
GEPSY	4230	Psychology of Adolescence	3

Student Teaching semester

¹⁰ ART	4920	Meth. of Teaching Art III: Student Tchg. Sem. 3	3
¹⁰ FLDX	4468	Student Teaching Secondary II	4
¹⁰ FLDX	4495	Student Teaching Elementary I	5

GENERAL EDUCATION REQUIREMENTS 36

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GEART	1800	Ideas & the Visual Arts (3)	
GEHIST	1350	History of US to 1877, 3 or	
GEHIST	1351	History US from 1877, 3	3

GEPOLS	1510	American Government	3
GEPSY	4230	Psychology of Adolescence (3)	
MINIMUM TOTAL			127

¹⁰Competency 10 course

ART

Minor, Bachelor of Science in Education Degree

Certification to teach art in grades K-9. Secondary majors should see the Director of Clinical Services and Certification. (369)

Sem. Hours

MINOR REQUIREMENTS 27

ART	1110	Drawing I	3
ART	1315	2-D Design	3
ART	2412	Ceramics I	3
ART	2420	Sculpture I	3
ART	2710	Printmaking I	3
ART	3314	Fibers	3
ART	3915	Methods of Teaching Art I: Elementary	3
ART	1815	Art History Survey I, 3 or	
ART	1825	Art History Survey II, 3	3
ART	2511	Painting I, 3 or	
ART	3510	Watercolor, 3	3

ART

Minor for a Bachelor's Degree

Except for a Bachelor of Science in Education Degree. (484)

Sem. Hours

MINOR REQUIREMENTS 24

ART	1110	Drawing I	3
ART	1120	Drawing II	3
ART	1315	2-D Design	3
ART	1325	Color & Design	3
ART	1815	Art History Survey I	3
ART	1825	Art History Survey II	3
ART	3209	Figure Construction	3
Elective in Art			3

GRAPHIC DESIGN

Major, Bachelor of Fine Arts Degree

(47-324)
The graduate with a Bachelor of Fine Arts degree in Graphic Design will use the knowledge and skills obtained in these programs to:

- Produce innovative and skillful work in visual art and design that demonstrates critical and creative thinking in both product and process and exhibits a consideration of theories, practices and emerging trends in art and design.
- Communicate and support informed and artistically sensitive interpretations and evaluations about their own work as well as visual forms made by others by using perceptual, contextual, critical, and aesthetic concepts that underlie the disciplines of art and design.
- Identify, describe and explain global, contemporary and historical art/design works and exhibit a consideration of their relationship to context and theory.
- Help facilitate a visually rich and culturally sensitive society by describing, explaining and applying the unique and important individual and collaborative artistic contributions made by women and men from diverse racial, geographical and cultural groups.
- Use technology as a resource in creative and critical processes to produce art, as well as to gather and share information about art and design history, aesthetics and art criticism.
- Exhibit evidence of an understanding of the professional practices and ethical standards for employment and long-term success in the graduate's degree program career field.
- Demonstrate in their work an understanding of and a concern for safety, the principles of sustainability, and the environmental impact of the

decisions they make as artists and/or designers.

- Employ knowledge of art theories, contexts, and art/design works to serve as precedents to inform the production of art and design.

Sem. Hours

MAJOR REQUIREMENTS 87

GRAP	1010	Fundamentals of Graphic Processes.	3
ART	1110	Drawing I	3
ART	1120	Drawing II	3
ART	1315	2-D Design	3
ART	1325	Color & Design	3
GEART	1800	Ideas & the Visual Arts	3
ART	1815	Art History Survey I	3
ART	1825	Art History Survey II	3
ART	2335	3-D Design	3
ART	2511	Painting I	3
ART	2610	Intro Graphic Design & Illustration	3
ART	2620	Typography	3
ART	2710	Printmaking I	3
ART	3510	Watercolor	3
ART	3620	Logo/Trademark Design	3
ART	3630	Design For Advertising	3
ART	3640	Package Design	3
ART	3660	Publication Design	3
ART	3680	History of Graphic Design.	3
¹⁰ ART	4020	Studio Seminar	3
ART	4221	Art Theory & Criticism	3
ART	4610	Interactive Design.	3
ART	2412	Ceramics I, 3 or	
ART	2420	Sculpture I, 3	3
ART	3650	Narrative Animation, 3 or	
ART	4620	Motion Design, 3	3
Elective in Art			3
Electives from the following			12
ART	4010	Special Projects In Art.	1-3
ART	4310	Design Internship	2-3
COMM	1200	Introduction to Mass Communication	3
COMM	2410	Multimedia Production	3
COMM	3413	Advanced Multimedia Production	3
COMM	3640	Integrated Strategic Communication	3
COMM	4250	The Law & Digital Media	3
ESE	3710	Entrepreneurial Business Planning	3
GRAP	2030	Pre-Media Appl. - Adobe Illustrator	3
GRAP	2031	Pre-Media Appl. - Adobe Photoshop	3
GRAP	2032	Pre-media Appl. - Adobe InDesign	3
GRAP	2610	Principles of Web Media	3
GRAP	2620	Web Media Applications	3
GRAP	2670	Web Media Animation	3
GRAP	3030	Digital Output Technologies	3
PHOT	1203	Introduction to Photography	3
PHOT	1210	Found. of Prof. Photography, 1 and	
PHOT	1211	Image Critique, 3	4
ART	3650	Narrative Animation, 3 or	
ART	4620	Motion Design, 3	3

GENERAL EDUCATION REQUIREMENTS. 36-39

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GEART	1800	Ideas & the Visual Arts	(3)
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MINIMUM TOTAL 123

¹⁰Competency 10 course

INTERIOR DESIGN

Major, Bachelor of Fine Arts Degree (47-261)

Graduation Policies for Interior Design

1. All interior design majors are required to pass Sophomore Review in order to continue in the degree program.

2. All interior design majors are required to participate in the Department of Art and Design Senior Show.
3. All Interior design majors are required to maintain a grade point average of 2.25 for all credit hours earned at UCM or elsewhere and attain a grade point average of 2.50 for all course work in the major.

The graduate with a Bachelor of Fine Arts degree in Interior Design will use the knowledge and skills obtained in these programs to:

- Produce innovative and skillful work in visual art and design that demonstrates critical and creative thinking in both product and process and exhibits a consideration of theories, practices and emerging trends in art and design.
- Communicate and support informed and artistically sensitive interpretations and evaluations about their own work as well as visual forms made by others by using perceptual, contextual, critical, and aesthetic concepts that underlie the disciplines of art and design.
- Identify, describe and explain global, contemporary and historical art/design works and exhibit a consideration of their relationship to context and theory.
- Help facilitate a visually rich and culturally sensitive society by describing, explaining and applying the unique and important individual and collaborative artistic contributions made by women and men from diverse racial, geographical and cultural groups.
- Use technology as a resource in creative and critical processes to produce art, as well as to gather and share information about art and design history, aesthetics and art criticism.
- Exhibit evidence of an understanding of the professional practices and ethical standards for employment and long-term success in the graduate's degree program career field.
- Demonstrate in their work an understanding of and a concern for safety, the principles of sustainability, and the environmental impact of the decisions they make as artists and/or designers.
- Employ knowledge of art theories, contexts, and art/design works to serve as precedents to inform the production of art and design.

Sem. Hours

MAJOR REQUIREMENTS 88

ART	1110	Drawing I	3
ART	1120	Drawing II	3
ART	1300	Interior Design Drafting I	3
ART	1315	2-D Design	3
ART	1325	Color & Design	3
GEART	1800	Ideas & the Visual Arts	3
GEART	1835	Global Arts & Culture	3
ART	2300	Interior Design Drafting II	3
ART	2305	Interior Design Presentation Techniques	3
ART	2310	Interior Design Studio I	3
ART	2320	Building Systems & Sustainability	3
ART	2335	3-D Design	3
ART	2340	Materials, Methods & Specifications	3
ART	2350	Interior Design Building Codes & Regulations	3
ART	2360	Interior Design Environmental Systems	3
ART	3310	Interior Design Studio II	3
ART	3320	Professional Practice for Interior Design I	1
ART	3330	Interior Design Studio III	3
ART	3340	Interior Detailing & Furniture Design	3
ART	3350	Const. Documentation for Interior Design	3
ART	3800	History of Furniture & Interiors	3
ART	3850	History of Furniture and Interiors II	3
ART	4221	Art Theory & Criticism	3
ART	4310	Design Internship	1
ART	4320	Professional Practice for Interior Design II	2
ART	4340	Interior Design Studio IV	3
ART	4350	Interior Design Thesis I	3
¹⁰ ART	4360	Interior Design Thesis II	3
ART	4850	20th Century Art & Architecture	3
Electives with an ART prefix			6

GENERAL EDUCATION REQUIREMENTS. 36

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general

education hours. The following general education classes are required by this major:

GEART	1800	Ideas & the Visual Arts	..... (3)
GEART	1835	Global Arts & Culture	..... (3)
MINIMUM TOTAL			..... 124

¹⁰Competency 10 course

STUDIO ART

Major, Bachelor of Fine Arts Degree
(47-263)

The graduate with a Bachelor of Fine Arts degree in Studio Art will use the knowledge and skills obtained in these programs to:

- Produce innovative and skillful work in visual art and design that demonstrates critical and creative thinking in both product and process and exhibits a consideration of theories, practices and emerging trends in art and design.
- Communicate and support informed and artistically sensitive interpretations and evaluations about their own work as well as visual forms made by others by using perceptual, contextual, critical, and aesthetic concepts that underlie the disciplines of art and design.
- Identify, describe and explain global, contemporary and historical art/design works and exhibit a consideration of their relationship to context and theory.
- Help facilitate a visually rich and culturally sensitive society by describing, explaining and applying the unique and important individual and collaborative artistic contributions made by women and men from diverse racial, geographical and cultural groups.
- Use technology as a resource in creative and critical processes to produce art, as well as to gather and share information about art and design history, aesthetics and art criticism.
- Exhibit evidence of an understanding of the professional practices and ethical standards for employment and long-term success in the graduate's degree program career field.
- Demonstrate in their work an understanding of and a concern for safety, the principles of sustainability, and the environmental impact of the decisions they make as artists and/or designers.

Employ knowledge of art theories, contexts, and art/design works to serve as precedents to inform the production of art and design.Sem. Hours

MAJOR REQUIREMENTS **84**

ART	1110	Drawing I	..... 3
ART	1120	Drawing II	..... 3
ART	1315	2-D Design	..... 3
ART	1325	Color & Design	..... 3
GEART	1800	Ideas & the Visual Arts	..... 3
ART	1815	Art History Survey I	..... 3
ART	1825	Art History Survey II	..... 3
ART	2335	3-D Design	..... 3
ART	2412	Ceramics I	..... 3
ART	2420	Sculpture I	..... 3
ART	2511	Painting I	..... 3
ART	2710	Printmaking I	..... 3
ART	3110	Drawing III	..... 3
ART	3209	Figure Construction	..... 3
¹⁰ ART	4221	Art Theory & Criticism	..... 3
ART	4850	20th Century Art & Architecture, 3 or	
ART	4860	Contemporary Art & Design, 3	..... 3
		Electives in art	..... 15
		Elect one of the following areas of specialization	..... 21
		Area 1 Sculpture	
ART	3420	Sculpture II	..... 3
ART	3440	Sculpture III	..... 3
¹⁰ ART	4020	Studio Seminar	..... 3
ART	4420	Sculpture IV	..... 12
		Area 2 Painting	
ART	3510	Watercolor	..... 3
ART	3511	Painting II, 3-9 or	
ART	3513	Painting II: Plein Air, 3-9 or	
ART	3515	Painting II: Figure, 3-9	..... 9
¹⁰ ART	4511	Painting III, 3-9 or	

ART	4513	Painting III: Plein Air, 3-9 or	
ART	4515	Painting III: Figure, 3-9	..... 9

Area 3 Ceramics

ART	3412	Ceramics II	..... 9
ART	4020	Studio Seminar	..... 3
ART	4412	Ceramics III	..... 9

Area 4 Printmaking

ART	3710	Printmaking II	..... 9
ART	3720	Printmaking III	..... 9
ART	4020	Studio Seminar	..... 3

Area 5 Illustration

ART	2610	Intro Graphic Design & Illustration	..... 3
ART	2620	Typography	..... 3
ART	3625	Illustration Techniques	..... 3
ART	3635	Illustration Concepts	..... 3
ART	4020	Studio Seminar	..... 3
ART	4625	Adv. Illustration I	..... 3
ART	4635	Adv. Illustration II	..... 3

GENERAL EDUCATION REQUIREMENTS **39**

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GEART	1800	Ideas & the Visual Arts (3)
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MINIMUM TOTAL **123**

¹⁰Competency 10 course

MUSIC

The Department of Music
Utt 111
660-543-4682
ucmo.edu/music

All programs in the Department of Music have been accredited since 1947 by the National Association of Schools of Music, 11250 Roger Bacon Dr., Suite 21, Reston, VA 20190-5248, phone 703-437-0700, email info@arts-accredit.org.

Department of Music Statement of Policy

Successful completion of an entrance audition and a passing score on the music fundamentals examination are required for admission to all degree programs in the Department of Music. Contact the department for specific requirements.

All music majors, except for the Bachelor of Arts degree, must demonstrate keyboard competency as listed in the degree programs. All students must meet the keyboard competency requirement before being admitted to special methods classes.

Credit for private lessons is based on one lesson per week for each 1-1.5 hours of credit. Upper-level (3000/4000) credit is given only after the sophomore examination is passed. Minimum practice requirement is one hour per day for each 1-1.5 hours of credit.

All students majoring or minoring in music are required to attend a designated number of recitals and concerts given on the campus. Music majors and minors are required to enroll for pass-fail in and to complete satisfactorily the following number of semesters of MUS 1000, Recital Attendance: music majors on the Bachelor of Arts degree, six semesters; on the B.M. degree, eight semesters (except Option 3 which is seven); on the B.M.E. degree, seven semesters; and music minors, four semesters. Deficiencies in MUS 1000 must be removed before a student may graduate.

Students are encouraged to participate in ensembles to broaden their general musical background and further develop their performance abilities and listening skills. Each degree program includes specific ensemble requirements noted under the course listing for those programs.

MUSIC

Major, Bachelor of Arts Degree
(42-436)

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

- Understand the basic elements and structures of music history, theory, and performance literature.
- Understand music's relationship to the other arts, and how the arts relate to mankind.
- Use technology in appropriate music applications.
- Communicate the intellectual (thinking), emotional, and aesthetic (valuing) qualities of music to a diverse society.
- Perform with appropriate tone, technique, and musicality in his/her primary performance medium.

Sem. Hours

MAJOR REQUIREMENTS 42-43

MUS 1000	Recital Attendance (6 semesters)	. . . . . 0
*MUS 1111	Theory I	. . . . . 3
MUS 1112	Theory II	. . . . . 3
MUS 1121	Aural Training I	. . . . . 1
MUS 1122	Aural Training II	. . . . . 1
GE/MUS 1225	Music of the World's Cultures	. . . . . 3
MUS 2111	Theory III	. . . . . 3
MUS 2121	Aural Training III	. . . . . 1
MUS 2221	Intro. to Music Literature I	. . . . . 2
MUS 2222	Intro. to Music Literature II	. . . . . 2
MUS 3211	Music History to 1750	. . . . . 3
GE/MUS 3212	Music History 1750-Present	. . . . . 3
¹⁰ MUS 4000	Special Projects in Music, 1-3 or	
¹⁰ MUS 4060	Senior Recital, 2 or	
¹⁰ MUS 4430	Seminar in Music Technology, 2 or	
¹⁰ MUS 4514	Piano Pedagogy IV – Seminar, 3	. . . . . 2-3
	Major instrument or voice, 1000 level	. . . . . 4
	Major instrument or voice, 3000 level	. . . . . 6
	Large vocal or instrumental ensemble	. . . . . 2
	Elective in Music	. . . . . 3

MINOR REQUIREMENTS 18-25

GENERAL EDUCATION REQUIREMENTS 36

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE/MUS 1225	Music of the World's Cultures	. . . . . (3)
GE/MUS 3212	Music History 1750-Present	. . . . . (3)

MUS 1210 Experiencing Music cannot be counted in the Music Degree Major courses or General Education courses.

Major large ensembles cannot count toward General Education for the Music Major.

MODERN LANGUAGE REQUIREMENT 6-9

Refer to Bachelor's Degree Requirements section for fulfillment options.

FREE ELECTIVES 10-21

MINIMUM TOTAL 120

¹⁰Competency 10 course

*This course has a prerequisite not listed in the program if admission by examination is not sufficient.

MUSIC

Major, Bachelor of Music Degree
(44-472)

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

- Understand the basic elements and structures of music history, theory, and performance literature.
- Understand music's relationship to the other arts, and how the arts relate to mankind.
- Use technology in appropriate music applications.

- Communicate the intellectual (thinking), emotional, and aesthetic (valuing) qualities of music to a diverse society.
- Perform at the highest possible level in his/her primary performance medium.
- Articulate essential elements of music and music performance.
- Demonstrate functional piano performance skills.

The Music department offers six options within this program. While each option requires specific courses and number of hours, all students must complete the following 25-hour core set of courses as part of the B. M. degree. Students should consult with their academic advisor to determine the unique requirements for each option.

Sem. Hours

MAJOR REQUIREMENTS 77-83.5

MAJOR CORE REQUIREMENTS 25

MUS 1000	Recital Attendance (8 semesters, 7 for Option 3)	0
*MUS 1111	Theory I	. . . . . 3
MUS 1112	Theory II	. . . . . 3
MUS 1121	Aural Training I	. . . . . 1
MUS 1122	Aural Training II	. . . . . 1
GE/MUS 1225	Music of the World's Cultures	. . . . . 3
MUS 2111	Theory III	. . . . . 3
MUS 2112	Theory IV	. . . . . 3
MUS 2121	Aural Training III	. . . . . 1
MUS 2122	Aural Training IV	. . . . . 1
MUS 3211	Music History to 1750	. . . . . 3
GE/MUS 3212	Music History 1750-Present	. . . . . 3

Select one of the following options. 58-64

Option 1 Instrumental 58

MUS 2221	Intro. to Music Literature I	. . . . . 2
MUS 2222	Intro. to Music Literature II	. . . . . 2
MUS 2300	Fundamentals of Conducting	. . . . . 3
MUS 3060	Junior Recital	. . . . . 1
¹⁰ MUS 4060	Senior Recital	. . . . . 2
MUS 4125	Form & Analysis	. . . . . 3
MUS 4240	String Instrument Lit. & Pedagogy, 2, or	
MUS 4245	Woodwind Instr Lit & Ped, 2, or	
MUS 4250	Brass Instr Lit & Ped, 2, or	
MUS 4255	Percussion Lit. & Pedagogy, 2	. . . . . 2
MUS 4101	Counterpoint I, 3, or	
MUS 4115	Instrumentation, 3, or	
MUS 4185	Jazz-Commercial Arranging, 3	. . . . . 3
	Major instrument, 1000 level	. . . . . 8
	Major instrument, 3000 level	. . . . . 12
	Minimum total of 20 hours in major instrument (1000 + 3000 level) will be met by applied music study on one instrument.	
	Major large instrumental ensemble	. . . . . 6
	Small instrumental ensemble	. . . . . 2
	Electives in instrumental music	. . . . . 2
	Other elective in music	. . . . . 10

Keyboard Competency is demonstrated by passing MUS 2502 Piano Class IV with a grade of B or better, or passing the piano proficiency examination.

Option 2 Jazz-Commercial 64

MUS 1085	Jazz-Rock Combo	. . . . . 2
GE/MUS 1281	History & Development of Jazz	. . . . . 3
MUS 1400	Computer Music Notation	. . . . . 0.5
GE/MUS 1450	Audio & Acoustics	. . . . . 3
MUS 2141	Composition I	. . . . . 3
MUS 2180	Jazz Improvisation I	. . . . . 2
MUS 2181	Jazz Improvisation II	. . . . . 2
MUS 2300	Fundamentals of Conducting	. . . . . 3
MUS 3060	Junior Recital	. . . . . 1
¹⁰ MUS 4060	Senior Recital	. . . . . 2
MUS 4125	Form & Analysis	. . . . . 3
MUS 4185	Jazz-Commercial Arranging	. . . . . 3
MUS 1410	Intro. to Sound Reinforcement, 0.5, or	
MUS 1420	Concert Recording, 0.5, or	
MUS 1430	Intro. to Audio Production, 0.5, or	

MUS 1440 Introduction to MIDI, 0.5 0.5
 MUS 4181 Advanced Jazz Improvisation, 2, or
 MUS 4186 Adv. Jazz-Commercial Arranging, 2 6
 Major instrument, 1000 level 8
 Major instrument, 3000 level 12
 Minimum total of 20 hours in major instrument (1000 +
 3000 level) will be met by applied music study on one
 instrument.
 Major large jazz ensemble
 choices are MUS 1081 and MUS 4081 6
 Major large non-jazz ensemble
 choices are MUS 1005, GEMUS 1010, GEMUS 1055,
 GEMUS 4010, GEMUS 4025, GEMUS 4050,
 MUS 4088 2
 Electives in music 2
 Keyboard Competency is demonstrated by passing MUS 2502 Piano
 Class IV with a grade of B or better, or passing the piano proficiency
 examination.

Option 3 Music Technology 65.5-66.5

MUS 1400 Computer Music Notation 0.5
 GEMUS 1450 Audio & Acoustics (must be taken
 the first term for Option 3 students) 3
 MUS 2400 Sound Reinforcement & Music Production 3
 MUS 2410 Digital Audio Production 3
 MUS 2420 Technology Practicum (2 semesters) 0
 MUS 4040 Music Business Practices 3
 MUS 4115 Instrumentation 3
 MUS 4190 Electronic Music Composition 3
 MUS 4195 Max & MSP 3
 MUS 4400 Audio for X 3
 MUS 4410 Electronic Music Production Techniques . . 3
 MUS 4420 Adv. Music Tech. Practicum (2 semesters) 0
¹⁰MUS 4430 Seminar in Music Tech. (2 semesters) . . . 4
 MUS 4450 Internship in Music Technology 6
 COMM 3425 Audio for Digital Cinema 3
 Major instrument or voice, 1000 level 4
 Major large instrumental or vocal ensemble 4
 Electives in music academic studies from the following: . . 6
 GEMUS 1220 Evolution of a Popular Art:
 An Introduction to Rock Music 3
 GEMUS 1281 History & Development of Jazz 3
 MUS 3141 Composition II 3
 MUS 4000 Special Projects in Music 3
 MUS 4101 Counterpoint I 3
 MUS 4125 Form & Analysis 3
 MUS 4185 Jazz-Commercial Arranging 3
 Electives in electronics or computer programming
 from the following: 3-4
 CS 1100 Computer Programming I 3
 ET 1010 Applied Electricity 4
 ET 1020 General Electronics 3
 Approved electives in music 8

Keyboard Competency is demonstrated by passing MUS 2502 Piano
 Class IV with a grade of B or better, or passing the piano proficiency
 examination.

Option 4 Piano 55

MUS 1095 Keyboard Ensemble 1
 MUS 1510 Piano I 8
 MUS 2221 Intro. to Music Literature I 2
 MUS 2222 Intro. to Music Literature II 2
 MUS 2300 Fundamentals of Conducting 3
 MUS 2515 Piano Accompanying 2
 MUS 3060 Junior Recital 1
 MUS 3095 Piano Accompanying Practicum 1
 MUS 3510 Piano II 12
¹⁰MUS 4060 Senior Recital 2
 MUS 4125 Form & Analysis 3
 MUS 4201 Piano Literature Through Beethoven 2
 MUS 4202 Piano Literature Romantic Era-Present . . . 2
 MUS 4511 Piano Pedagogy I - Beginner 3
 MUS 4101 Counterpoint I, 3, or
 MUS 4115 Instrumentation, 3 3

Major large instrument or vocal ensemble
 choices are MUS 1005, GEMUS 1010, GEMUS 1055,
 GEMUS 4010, GEMUS 4025, GEMUS 4050 4
 Electives in the area 4

Option 5 Piano Pedagogy 61.5

MUS 1510 Piano I 8
 MUS 2222 Intro. to Music Literature II 2
 MUS 2300 Fundamentals of Conducting 3
 MUS 2515 Piano Accompanying 2
 MUS 3510 Piano II 10.5
¹⁰MUS 4060 Senior Recital 2
 MUS 4101 Counterpoint I 3
 MUS 4125 Form & Analysis 3
 MUS 4201 Piano Literature Through Beethoven 2
 MUS 4202 Piano Literature Romantic Era-Present . . . 2
 MUS 4511 Piano Pedagogy I - Beginner 3
 MUS 4512 Piano Ped. II - Intermediate Student 3
 MUS 4513 Piano Pedagogy III - Adv. Student 3
 MUS 4514 Piano Pedagogy IV - Seminar 3
 MUS 4515 Practice Teaching in Piano 6
 MUS 1095 Keyboard Ensemble, 1, or
 MUS 3095 Piano Accompanying Practicum, 1, 2
 Major large instrument or vocal ensemble
 choices are MUS 1005, GEMUS 1010, GEMUS 1055,
 GEMUS 4010, GEMUS 4025, GEMUS 4050 4

Option 6 Vocal 58

MUS 1610 Voice I 8
 MUS 1615 Opera Theatre 2
 MUS 2221 Intro. to Music Literature I 2
 MUS 2222 Intro. to Music Literature II 2
 MUS 2300 Fundamentals of Conducting 3
 MUS 2631 Diction for Singers I 1
 MUS 2632 Diction for Singers II 2
 MUS 3060 Junior Recital 1
 MUS 3610 Voice II 12
¹⁰MUS 4060 Senior Recital 2
 MUS 4125 Form & Analysis 3
 MUS 4235 Vocal Literature 3
 MUS 4600 Vocal Pedagogy 2
 MUS 4101 Counterpoint I, 3, or
 MUS 4115 Instrumentation, 3 3
 GEFREN 1202 Elementary French II, 3, or
 GEGER 1302 Elementary German II, 3 3
 Major large vocal ensemble 6
 Electives in music 3

Keyboard Competency is demonstrated by passing MUS 2502 Piano
 Class IV with a grade of B or better, or passing the piano proficiency
 examination.

GENERAL EDUCATION REQUIREMENTS (Option 1) 36

All students must complete a minimum of 42 credit hours in general
 education. See pages 46-49 for full listing of requirements. Hours
 listed in (I) are counted in the major or other hours and not in the general
 education hours. The following general education classes are required by
 this major:

GEMUS 1225 Music of the World's Cultures (3)
 GEMUS 3212 Music History 1750-Present (3)

GENERAL EDUCATION REQUIREMENTS (Option 2) 30

All students must complete a minimum of 42 credit hours in general
 education. See pages 46-49 for full listing of requirements. Hours
 listed in (I) are counted in the major or other hours and not in the general
 education hours. The following general education classes are required by
 this major:

GEMUS 1225 Music of the World's Cultures (3)
 GEMUS 1281 History & Development of Jazz (3)
 GEMUS 1450 Audio and Acoustics (3)
 GEMUS 3212 Music History 1750-Present (3)

GENERAL EDUCATION REQUIREMENTS (Option 3) 33

All students must complete a minimum of 42 credit hours in general
 education. See pages 46-49 for full listing of requirements. Hours
 listed in (I) are counted in the major or other hours and not in the general
 education hours. The following general education classes are required by
 this major:

GE/MUS 1225	Music of the World's Cultures	(3)
GE/MUS 1450	Audio and Acoustics	(3)
GE/MUS 3212	Music History 1750-Present	(3)
GE/ECON 1010	Principles of Macroeconomics	3

GENERAL EDUCATION REQUIREMENTS (Option 4) 36

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE/MUS 1225	Music of the World's Cultures	(3)
GE/MUS 3212	Music History 1750-Present	(3)

GENERAL EDUCATION REQUIREMENTS (Option 5) 36

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE/MUS 1225	Music of the World's Cultures	(3)
GE/MUS 3212	Music History 1750-Present	(3)
GE/PSY 1100	General Psychology	3

GENERAL EDUCATION REQUIREMENTS (Option 6) 36

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE/MUS 1225	Music of the World's Cultures	(3)
GE/MUS 3212	Music History 1750-Present	(3)

FREE ELECTIVES 0-4

MINIMUM TOTAL 120-122.5

¹⁰Competency 10 course

*This course has a prerequisite not listed in the program if admission by examination is not sufficient.

NOTE: MUS 1210 Experiencing Music cannot be counted in the Music Degree Major courses or General Education courses for this degree.

NOTE: Major large ensembles cannot count toward General Education for the Music Major.

MUSIC

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (483)

Sem. Hours

MINOR REQUIREMENTS 23

MUS 1000	Recital Attendance (4 semesters)	0
*MUS 1111	Theory I	3
MUS 1112	Theory II	3
MUS 1121	Aural Training I	1
MUS 1122	Aural Training II	1
GE/MUS 3212	Music History 1750-Present	3
MUS 2221	Intro. to Music Literature I, 2 or	
MUS 2222	Intro. to Music Literature II, 2	2
	Major instrument or voice	4
	Major large ensemble	4
	Departmentally approved electives	2

*This course has a prerequisite not listed in the program if admission by examination is not sufficient.

MUSIC EDUCATION

Major, Bachelor of Music Education Degree

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

- Understand the basic elements and structures of music history, theory, and performance literature.
- Understand music's relationship to the other arts, and how the arts relate to mankind.
- Use technology in appropriate music applications.

- Communicate the intellectual (thinking), emotional, and aesthetic (valuing) qualities of music to a diverse society.
- Teach essential elements of music and music performance at elementary and secondary school levels.
- Perform with appropriate tone, technique, and musicality in his/her primary performance medium.
- Demonstrate functional piano performance skills.

INSTRUMENTAL

Major Option, Bachelor of Music Education Degree

(45-440)

Certification to teach instrumental music in grades K-12.

Sem. Hours

MAJOR REQUIREMENTS 64.5

MUS 1000	Recital Attendance (7 semesters)	0
*MUS 1111	Theory I	3
MUS 1112	Theory II	3
MUS 1121	Aural Training I	1
MUS 1122	Aural Training II	1
GE/MUS 1225	Music of the World's Cultures	3
MUS 1390	Introduction to Music Education	2
MUS 1400	Computer Music Notation	0.5
GE/MUS 1450	Audio and Acoustics	3
MUS 1701	String Class	1
MUS 2111	Theory III	3
MUS 2112	Theory IV	3
MUS 2121	Aural Training III	1
MUS 2122	Aural Training IV	1
MUS 2300	Fundamentals of Conducting	3
MUS 2801	Woodwind Class I	1
MUS 2802	Woodwind Class II	1
MUS 2901	Brass Class I	1
MUS 2902	Brass Class II	1
MUS 2950	Percussion Class	1
MUS 3211	Music History to 1750	3
GE/MUS 3212	Music History 1750-Present	3
MUS 3308	Marching Band Techniques	1
MUS 3320	Instr. Conducting & Rehearsal Techniques	3
MUS 4115	Instrumentation	3
MUS 4381	Jazz Pedagogy	2
MUS 1410	Introduction to Sound Reinforcement, 0.5 or	
MUS 1420	Concert Recording, 0.5 or	
MUS 1430	Introduction to Audio Production, 0.5 or	
MUS 1440	Introduction to MIDI, 0.5	0.5
	Major instrument, 1000 level	4
	Major instrument, 3000 level	4.5
	Major large instrumental ensemble	7

BME Instrumental students are expected to be in a major large instrumental ensemble during every semester up to their student teaching semester, with a minimum of seven (7) separate semesters to include:

Woodwind, Brass & Percussion students:

3 semester hours (s.h.) in MUS 1005

4 combined s.h. in GE/MUS 1010, GE/MUS 4010, MUS 1081, MUS 4081 (up to 2 total s.h. of MUS 1081 & MUS 4081, may be applied toward degree), and GE/MUS 4025 (up to 2 s.h. may be applied toward degree).

String students:

6 s.h. in GE/MUS 4025 and 1 s.h. in MUS 1097.

Keyboard & Guitar majors must choose band or orchestra as their major large ensemble. Guitar majors may apply up to two (2) s.h. in MUS 4088 toward their major large ensemble requirements.

Keyboard competency is demonstrated by passing MUS 2502 (Piano Class IV) with a grade of B or better or passing the piano proficiency exam.

PROFESSIONAL EDUCATION REQUIREMENTS (page 90) 33

EDFL 2100	Foundations of Education	2
GE/EDFL 2240	Educational Psychology	3
EDFL 3500	Secondary Teaching & Behavioral Mgt.	3
EDSP 2100	Education of the Exceptional Child	2
FLDX 2150	Introductory Field Experience	1
FLDX 3550	Practicum in Secondary Instruction	1
MUS 3305	Meth. of Teaching Elementary School Music	3

MUS 3306	Meth. of Teaching Instrumental Music	3
GEPHY 4230	Psychology of Adolescence	3
Student Teaching semester		
FLDX 4468	Student Teaching Secondary II	4
FLDX 4595	Student Teaching Secondary I	5
¹⁰ MUS 4310	Methods of Teaching Music	1
MUS 4350	Secondary Field Experience II	2

GENERAL EDUCATION REQUIREMENTS 30

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GEMUS 1225	Music of the World's Cultures	(3)
GEMUS 1450	Audio and Acoustics	(3)
GEMUS 3212	Music History 1750-Present	(3)
GEPHY 4230	Psychology of Adolescence	(3)
GEPOLS 1510	American Government	3

MINIMUM TOTAL 127.5

For additional certification to teach vocal music with the INSTRUMENTAL Major Option, B.M.E. Degree, see the department chair.

¹⁰Competency 10 course

*This course has a prerequisite not listed in the program if admission by examination is not sufficient.

NOTE: MUS 1210 Experiencing Music cannot be counted in the Music Degree Major courses or General Education courses for this degree.

NOTE: Major Large Ensembles cannot count toward General Education for the Music Major.

VOCAL

Major Option, Bachelor of Music Education Degree

Certification to teach vocal music in grades K-12. (45-441)

Sem. Hours

MAJOR REQUIREMENTS 63.5

MUS 1000	Recital Attendance (7 semesters)	0
*MUS 1111	Theory I	3
MUS 1112	Theory II	3
MUS 1121	Aural Training I	1
MUS 1122	Aural Training II	1
GEMUS 1225	Music of the World's Cultures	3
MUS 1390	Introduction to Music Education	2
MUS 1400	Computer Music Notation	0.5
GEMUS 1450	Audio & Acoustics	3
MUS 1610	Voice I	4
MUS 2111	Theory III	3
MUS 2112	Theory IV	3
MUS 2121	Aural Training III	1
MUS 2122	Aural Training IV	1
MUS 2300	Fundamentals of Conducting	3
MUS 2632	Diction for Singers II	2
MUS 3211	Music History to 1750	3
GEMUS 3212	Music History 1750-Present	3
MUS 3310	Choral Conducting	3
MUS 3610	Voice II	4.5
MUS 4130	Choral Arranging	2
MUS 4230	Choral Literature	3
MUS 4320	Methods of Teaching Middle School Music	3
MUS 1410	Introduction to Sound Reinforcement, 0.5 or	
MUS 1420	Concert Recording, 0.5 or	
MUS 1430	Introduction to Audio Production, 0.5 or	
MUS 1440	Introduction to MIDI, 0.5	0.5
MUS 1615	Opera Theatre I, or	
MUS 1620	Musical Theatre Practicum I,	1
Large vocal ensemble		7

Keyboard Competency is demonstrated by passing MUS 2502 Piano Class IV with a grade of B or better, or passing the piano proficiency examination.

A student who wishes this degree and elects a keyboard performing

emphasis must have 4 hours of keyboard (1000 level), 4.5 hours of keyboard (3000 level), and 5 hours of voice or voice class in lieu of the required 8.5 hours of voice.

PROFESSIONAL EDUCATION REQUIREMENTS (page 90) 33

EDFL 2100	Foundations of Education	2
GEDFL 2240	Educational Psychology	3
EDFL 3500	Secondary Teaching & Behavioral Mgt.	3
EDSP 2100	Education of the Exceptional Child	2
FLDX 2150	Introductory Field Experience	1
FLDX 3550	Practicum in Secondary Instruction	1
MUS 3305	Meth. of Teaching Elementary School Music	3
MUS 3315	Choral Techniques	3
GEPHY 4230	Psychology of Adolescence	3
Student Teaching semester		
FLDX 4495	Student Teaching Elementary I	4
FLDX 4595	Student Teaching Secondary I	5
¹⁰ MUS 4310	Methods of Teaching Music	2
MUS 4350	Secondary Field Experience II	1

GENERAL EDUCATION REQUIREMENTS 30

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GEMUS 1225	Music of the World's Cultures	(3)
GEMUS 1450	Audio and Acoustics	(3)
GEMUS 3212	Music History 1750-Present	(3)
GEPHY 4230	Psychology of Adolescence	(3)
GEPOLS 1510	American Government	3

MINIMUM TOTAL 126.5

For additional certification to teach instrumental music with the VOCAL Major Option, B.M.E. Degree, see the department chair.

¹⁰Competency 10 course

*This course has a prerequisite not listed in the program if admission by examination is not sufficient.

NOTE: MUS 1210 Experiencing Music cannot be counted in the Music Degree Major courses or General Education courses for this degree.

NOTE: Major Large Ensembles cannot count toward General Education for the Music Major.

THEATRE AND DANCE

The Department of Theatre and Dance
 Martin 113
 660-543-4020
 ucmo.edu/theatre

DANCE

Minor for a Bachelor's Degree (863)

Sem. Hours

MINOR REQUIREMENTS 23

DANC 1110	Modern Dance I	1
DANC 1120	Ballet Dance I	1
DANC 1130	Tap Dance I	1
DANC 1140	Jazz Dance I	1
DANC 3110	Modern Dance II	1
DANC 3120	Ballet Dance II	1
DANC 3130	Tap Dance II	1
DANC 3140	Jazz Dance II	1
DANC 3210	Musical Theatre Dance	3
DANC 4210	Choreography I	3
THEA 1510	Stage Movement	3
THEA 1600	Stagecraft	3
Electives in DANC or THEA		3

MUSICAL THEATRE

Major, Bachelor of Fine Arts Degree
(47-586)

	Sem. Hours
MAJOR REQUIREMENTS	75
THEA 1100 Oral Interpretation	3
THEA 1400 Script Analysis	3
THEA 1500 Acting	3
THEA 1510 Stage Movement	3
THEA 1520 Stage Voice	3
THEA 1600 Stagecraft	3
THEA 1610 Stage Make-Up	3
THEA 2610 Design Fundamentals	3
THEA 3700 Directing	3
¹⁰ THEA 4400 Lit. & History of the Theatre I	3
THEA 4420 Lit. & History of the Theatre II	3
THEA 4430 American Musical Theatre History	3
THEA 4500 Advanced Acting	3
THEA 4510 Period Acting Styles	3
THEA 4910 Senior Showcase	1
DANC 1130 Tap Dance I	1
DANC 1140 Jazz Dance I	1
DANC 3130 Tap Dance II	1
DANC 3140 Jazz Dance II	1
DANC 3210 Musical Theatre Dance	3
DANC 4210 Choreography I	3
MUS 1100 Fundamentals of Music	3
MUS 1111 Theory I	3
MUS 1121 Aural Training I	1
MUS 1501 Piano Class I	1
MUS 1502 Piano Class II	1
MUS 1610 Voice I (1 hour for a total of 4 hours)	4
MUS 1615 Opera Theatre	1
MUS 3610 Voice II (1.5 hours for a total of 3 hours)	3
Select 2 hours from the following courses	2
DANC 1110 Modern Dance I	1
DANC 1120 Ballet Dance I	1
DANC 3110 Modern Dance II	1
DANC 3120 Ballet Dance II	1
Select 3 hours from 1 to 3 of the following courses	3
^{GE} MUS 1055 Collegiate Choir	1
^{GE} MUS 3070 Chamber Singers	1
MUS 3077 Vocal Jazz Ensemble	1
^{GE} MUS 4050 University Concert Choir	1
GENERAL EDUCATION REQUIREMENTS	36-39
All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:	
^{GE} THEA 1100 Oral Interpretation (3)	
FREE ELECTIVES	6-9
MINIMUM TOTAL	120
¹⁰ Competency 10 course	

SPEECH COMMUNICATION AND THEATRE

Major, Bachelor of Science in Education Degree
Certification to teach speech and theatre in grades 9-12.
(41-362)

The graduate with a Speech Communication and Theatre Bachelor of Science in Education degree (with a Theatre Major Option) will use the knowledge and skills obtained in the program to:

- Teach essential elements of speech communication and theatre at secondary school levels.
- Demonstrate knowledge and application of the fundamentals of Communication.
- Demonstrate knowledge and application of public speaking concepts and principles.

- Demonstrate knowledge and application of the theory and practice of argumentation and debate.
- Demonstrate an understanding of communication ethics.
- Demonstrate knowledge and application of school forensics through experiential co-curricular activities.
- Demonstrate knowledge and application of mass communication concepts, principles and basic techniques.
- Communicate and collaborate effectively in the interactive and creative process of theatre.
- Demonstrate a working knowledge of the historical, cultural, and stylistic dimensions of drama and theatre.
- Utilize critical thinking skills in order to analyze and interpret a script for the purpose of developing a concept and systematic plan for the production of a play.
- Form, communicate, and defend value judgments about quality and aesthetics in works of theatre.
- Demonstrate technical proficiency in the areas of acting and directing in order to create and present theatrical performances.
- Demonstrate a basic proficiency in the areas of theatre design and technology in order to create and present theatrical productions.
- Technically direct and direct one-act plays for public performance and successfully fulfill significant production assignments in the department's mainstage and/or children's theatre series.

	Sem. Hours
CORE REQUIREMENTS	36

THEA 1500 Acting	3
THEA 1600 Stagecraft	3
THEA 2610 Design Fundamentals	3
THEA 3630 Studio Theatre I	1
THEA 3700 Directing	3
THEA 4400 Lit. & History of the Theatre I	3
THEA 4730 Studio Theatre II	1
THEA 4930 Co-Curricular Practicum	2
^{GE} COMM 1000 Public Speaking	3
^{GE} COMM 1200 Introduction to Mass Communication	3
COMM2100 Introduction to Comm. Theory	3
COMM2330 Comm. in Small Groups/Teams	3
COMM2340 Argumentation & Debate	3
COMM3325 Nonverbal Communication	2

PROFESSIONAL EDUCATION REQUIREMENTS (page 90) **31**

EDFL 2100 Foundations of Education	2
^{GE} EDFL 2240 Educational Psychology	3
EDFL 3500 Secondary Teaching & Behavioral Mgt.	3
EDFL 4210 Teaching Reading in the Sec. School	2
EDFL 4300 Educational Assessment & Evaluation	2
EDSP 2100 Education of Exceptional Child	2
FLDX 2150 Introductory Field Experience	1
FLDX 3550 Practicum in Secondary Instruction	1
^{GE} PSY 4230 Psychology of Adolescence	3
THEA 4984 Methods of Teaching Speech & Theatre	2
Student Teaching semester	
¹⁰ FLDX 4468 Student Teaching Secondary II	6
FLDX 4595 Student Teaching Secondary I	5
THEA 4920 Secondary Field Experience II	1

GENERAL EDUCATION REQUIREMENTS **42**

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

^{GE} THEA 1100 Oral Interpretation	3
^{GE} HIST 1350 History of US to 1877, 3 or	
^{GE} HIST 1351 History US from 1877, 3	3
^{GE} POLS 1510 American Government	3
^{GE} THEA 2400 Discovering Theatre	3
^{GE} COMM 3000 Film Appreciation	3
^{GE} WGS 2000 Race, Class, & Gender	3

MINOR REQUIREMENTS **18-24**

MINIMUM TOTAL **126-132**

¹⁰Competency 10 course

SPEECH COMMUNICATION AND THEATRE

Minor, Bachelor of Science in Education Degree

Elementary education majors 1-6 may use this as an area of concentration.
(363)

	Sem. Hours
MINOR REQUIREMENTS	21
THEA 1500 Acting	3
THEA 1600 Stagecraft	3
THEA 3700 Directing	3
COMM2100 Foundations of Comm. Theory	3
COMM2330 Comm. in Small Groups/Teams	3
COMM2340 Argumentation & Debate	3
Elective in THEA or COMM	3

THEATRE

Major, Bachelor of Arts Degree

(42-364)

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

- Communicate and collaborate effectively in the interactive and creative process of theatre.
- Demonstrate a working knowledge of the historical, cultural, and stylistic dimensions of drama and theatre.
- Utilize critical thinking skills in order to analyze and interpret a script for the purpose of developing a concept and systematic plan for the production of a play.
- Form, communicate, and defend value judgments about quality and aesthetics in works of theatre.
- Demonstrate technical proficiency in the areas of acting and directing in order to create and present theatrical performances.
- Demonstrate a basic proficiency in the areas of theatre design and technology in order to create and present theatrical productions.
- Technical direct and direct one-act plays for public performance and successfully fulfill significant production assignments in the department's mainstage and/or children's theatre series.

	Sem. Hours
MAJOR REQUIREMENTS	35
THEA 1400 Script Analysis	3
THEA 1500 Acting	3
THEA 1510 Stage Movement	3
THEA 1520 Stage Voice	3
THEA 1600 Stagecraft	3
THEA 2610 Design Fundamentals	3
THEA 3630 Studio Theatre I	1
THEA 3700 Directing	3
THEA 4730 Studio Theatre II	1
¹⁰ THEA 4400 Lit. & History of the Theatre I	3
THEA 4420 Lit. & History of the Theatre II	3
THEA 3600 Scene Design, 3 or	
THEA 3610 Costume Design, 3 or	
THEA 3620 Lighting Design, 3	3
Electives in theatre	3

MINOR REQUIREMENTS18-25

GENERAL EDUCATION REQUIREMENTS 39

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

THEA 1100 Oral Interpretation	3
Modern Language	(3)

MODERN LANGUAGE REQUIREMENT3-9

Refer to Bachelor's Degree Requirements section for fulfillment options.

FREE ELECTIVES12-22

MINIMUM TOTAL 120

¹⁰Competency 10 course

THEATRE

Major, Bachelor of Fine Arts Degree

(47-366)

The graduate with a Bachelor of Fine Arts degree in Theatre will use the knowledge and skills obtained in the program to:

- Communicate and collaborate effectively in the interactive and creative process of theatre.
- Demonstrate a working knowledge of the historical, cultural, and stylistic dimensions of drama and theatre.
- Utilize critical thinking skills in order to analyze and interpret a script for the purpose of developing a concept and systematic plan for the production of a play.
- Form, communicate, and defend value judgments about quality and aesthetics in works of theatre.
- Demonstrate technical proficiency in the areas of acting and directing in order to create and present theatrical performances.
- Demonstrate a basic proficiency in the areas of theatre design and technology in order to create and present theatrical productions.
- Technical direct and direct one-act plays for public performance and successfully fulfill significant production assignments in the department's mainstage and/or children's theatre series.

	Sem. Hours
MAJOR REQUIREMENTS	61

Departmental Core requirements	28
THEA 1400 Script Analysis	3
THEA 1500 Acting	3
THEA 1600 Stagecraft	3
THEA 2610 Design Fundamentals	3
THEA 3700 Directing	3
THEA 4300 Professional Practices	3
THEA 4310 Principles of Theatre Management	3
¹⁰ THEA 4400 Lit. & History of the Theatre I	3
THEA 4910 Senior Showcase	1
THEA 4420 Lit. & History of the Theatre II	3
Performance	33
THEA 1510 Stage Movement	3
THEA 1520 Stage Voice	3
THEA 1610 Stage Make-Up	3
THEA 3500 Advanced Scene Study	3
THEA 4500 Advanced Acting	3
THEA 4510 Period Acting Styles	3
THEA 4710 Advanced Directing	3
THEA 4730 Studio Theatre II	1
DANC 1140 Jazz Dance I	1
DANC 1110 Modern Dance I, 1 or	
DANC 1120 Ballet Dance I, 1	1
Elect 9 hours from the following Design/Tech. courses ..	9
THEA 2620 Costume Technology	3
THEA 2630 Drafting for the Theatre	3
THEA 3600 Scene Design	3
THEA 3610 Costume Design	3
THEA 3620 Lighting Design	3
THEA 4600 Advanced Technical Theatre	3
THEA 4610 Adv. Stage Lighting & Sound	3
THEA 4620 Period Research	3

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements.

FREE ELECTIVES 17

MINIMUM TOTAL 120

¹⁰Competency 10 course

THEATRE**Minor for a Bachelor's Degree**

UCM does not confer teacher certification for this minor.
(365)

	Sem. Hours
MINOR REQUIREMENTS	23
THEA 1100 Oral Interpretation	3
THEA 1400 Script Analysis	3
THEA 1500 Acting	3
THEA 1600 Stagecraft	3
THEA 3700 Directing	3
THEA 4400 Lit. & History of the Theatre I, 3 or	
THEA 4420 Lit. & History of the Theatre II, 3	3
Electives in theatre	5

COLLEGE OF EDUCATION

The College of Education
Lovinger 2190
660-543-4272
Fax 660-543-4167
ucmo.edu/ced

The College of Education is comprised of:

- The Department of Career and Technology Education
- The Department of Educational Foundations and Literacy
- The Department of Educational Leadership and Human Development
- The Department of Elementary and Early Childhood Education
- Clinical Services and Certification
- Central Regional Professional Development Center
- Missouri Center for Career Education
- Midwest Center for Charter Schools and Urban Education
- Professional Development School Partnership
- THRIVE Program

Clinical Services and Certification
Lovinger 2170
660-543-8441
Fax 660-543-8655
ucmo.edu/cert

The back of this catalog includes course descriptions of all classes taught at the undergraduate level. Course descriptions can also be found online in MyCentral.

TEACHER EDUCATION

In addition to the College of Education, Teacher Education students may also be enrolled in programs through the College of Arts, Humanities, and Social Sciences and the College of Health, Science, and Technology.

The University of Central Missouri's Teacher Education Programs are accredited by the National Council for the Accreditation of Teacher Education (NCATE) (ncate.org). In Spring, 2016, UCM will have our first national review by the Council for the Accreditation of Educator Preparation (CAEP), for more information visit caepnet.org. UCM teacher certification programs have been approved by the Missouri Department of Elementary and Secondary Education (dese.mo.gov). Many UCM educator preparation programs are also nationally recognized by their specialized professional associations.

Conceptual Framework Information

The philosophical underpinnings of the UCM reflective practice model are described in the Conceptual Framework of the Teacher Education Program.

Belief Statement

The Central educator is a competent, caring, reflective practitioner committed to the premise that all can learn.

Mission Statement

As a cornerstone of the institution since 1871, the University of Central Missouri's Teacher Education Program develops teachers and

other school professionals who are well grounded in theory, display competence in content knowledge and instructional strategies, and possess the dispositions to ensure success for all learners. The Teacher Education Program prepares individuals as professional educators for an ever-changing, culturally diverse population. Faculty and candidates provide support and service to schools in meeting their present and future challenges by developing communities that learn through research and scholarly activities. Educator preparation is a campus-wide responsibility, a commitment that reflects the honor and worth of serving a vital profession.

Program Standards

All Teacher Education students seeking initial certification will be able to demonstrate the knowledge and skills obtained in the program to meet the candidate level of the Missouri Standards for Professional Educators listed below:

- Standard #1 - Content Knowledge, Including Varied Perspectives,**
Aligned with Appropriate instruction: The teacher understands the central concepts, structures and tools of inquiry of the discipline(s) and creates learning experiences that make these aspects of subject matter meaningful and engaging for students.
- Standard #2 - Student, Learning Growth and Development:** The teacher understands how students learn, develop, and differ in their approaches to learning. The teacher provides learning opportunities that are adapted to diverse learners and support the intellectual, social, and personal development of all students.
- Standard #3 - Curriculum Implementation:** The teacher recognizes the importance of long-range planning and curriculum development. The teacher develops, implements, and evaluates curriculum based upon standards and student needs.
- Standard #4 - Critical Thinking:** The teacher uses a variety of instructional strategies to encourage students' development and critical thinking, problem solving, and performance skills including instructional resources.
- Standard #5 - Positive Classroom Environment:** The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages active engagement in learning, positive social interaction and self-motivation.
- Standard #6 - Effective Communication:** The teacher models effective verbal, nonverbal, and media communication techniques with students, colleagues and parents to foster active inquiry, collaboration, and supportive interaction in the classroom.
- Standard #7 - Student Assessment and Data Analysis:** The teacher understands and uses formative and summative assessment strategies to assess the learner's progress, uses assessment data to plan ongoing instruction, monitors the performance of each student and devises instruction to enable students to grow and develop.
- Standard #8 - Professionalism:** The teacher is a reflective practitioner who continually assesses the effects of choices and actions on others. The teacher actively seeks out opportunities to grow professionally in order to improve learning for all students.
- Standard #9 - Professional Collaboration:** The teacher has effective working relationships with students, parents, school colleagues and community members.

Policies and Procedures

Certification

The teacher certification program offered by UCM is accredited nationally by the National Council for Accreditation of Teacher Education Programs (NCATE) and also meets certification requirements set by the Missouri Department of Elementary and Secondary Education (DESE).

Initial teacher certification may be earned at UCM in part by completing the Bachelor of Science in Education degree, the Bachelor of Music Education degree, or in certain instances the Bachelor of Science or Bachelor of Arts degree. The degree earned does not automatically lead to certification. Students may apply for certification upon completion of degrees with major and minor programs that are designated as meeting Missouri certification guidelines. Initial teacher certification may also be obtained through a post-baccalaureate program. In addition, UCM offers an alternative program for certification for individuals with degrees not in education who are otherwise eligible for immediate employment in a teaching position. See the Director of Clinical Services and Certification

for further information about both of these programs. The State of Missouri and UCM stipulate the following requirements for students seeking initial teacher certification:

1. admission to the UCM Teacher Education program;
2. admission to the professional education semester and student teaching;
3. a minimum cumulative grade point average of 2.75 on a 4-point scale on all college work attempted prior to initial certification;
4. a minimum grade point average of 3.0 on a 4-point scale in each initial certificate content area, and any additional area of endorsement;
5. a minimum grade point average for all professional education courses of 3.0, with no grade lower than C in any professional education course; those courses designated as Professional Education Courses for educator certification purposes are designated by a book symbol. Students must earn at least a C grade, and maintain at least a 3.0 GPA in all Professional Education Courses.
6. completion of the required Missouri subject area assessment with a score no lower than the minimum required for state licensure.

UCM offers undergraduate BSE, BME, BS, or BA degrees in the following majors, which lead to initial teacher certification:

- Art (K-12)
- Biology (9-12)
- Career and Technology Teacher Education, Business Teacher Education (9-12)
- Career and Technology Teacher Education, Family and Consumer Sciences Teacher Education (B-12)
- Career and Technology Teacher Education, Engineering and Technology Teacher Education (9-12)
- Chemistry (9-12)
- Earth Science (9-12)
- Elementary Education Early Childhood (B-3)
- Elementary Education Grades 1-6 (1-6)
- English (9-12)
- Mathematics (9-12)
- Middle School – Junior High School (5-9)
- Modern Languages, French (K-12)
- Modern Languages, Spanish (K-12)
- Music, Instrumental (K-12)
- Music, Vocal (K-12)
- Physical Education, Elementary-Secondary (K-12)
- Physics (9-12)
- Social Studies (9-12)
- Special Education- Early Childhood Special Education (B-3)
- Special Education- Cross-Categorical Disabilities (K-12)
- Special Education- Severely Developmentally Disabled (B-12)
- Speech, Communication, Theatre (9-12)

UCM offers minor programs that may lead to certification. Please see your academic advisor.

In addition UCM offers an added certification in Driver Education (9-12), ESOL (K-12), and Special Reading (K-12) requiring completion of a major teaching program.

NOTE: Many professional education courses include embedded field experience requirements. Check with your major department for specifics.

Admission To The Teacher Education Program

Students seeking an initial teaching certificate (as candidates for the Bachelor of Science in Education, the Bachelor of Science, Bachelor of Arts, the Bachelor of Music Education degrees, or as post-baccalaureate students) must gain admission to the University of Central Missouri

Teacher Education Program. Admission to Teacher Education is required before enrolling in courses identified as PROFESSIONAL EDUCATION REQUIREMENTS (with the exception of the courses listed below) as well as those courses identified by departments representing the major area of study in the preparation for teaching.

1. Apply for admission at ucmo.edu/cert and create an Educator Profile on DESE website at <https://k12apps.dese.mo.gov/weblogin/login.aspx>.
2. Provide evidence of having completed a minimum of 36 semester hours of college credit

3. Achieve a cumulative GPA of 2.75 or higher; content GPA of 3.0 or higher; Professional Education GPA of 3.0 or higher with no grade lower than a C.
4. Complete the following courses with a grade of C or better:
 - A. EDFL 2100, Foundations of Education
 - B. FLDX 2150 Introductory Field Experience
 - C. ~~EDFL~~ 2240, Educational Psychology
5. Obtain departmental recommendation for admission to your major program (which may include additional program-specific requirements).
6. Pass a background check through the approved DESE agent.
7. Pass all five sections of the Missouri General Education Assessment (MoGEA).
8. Complete the Missouri Educator Profile and meet with your advisor to discuss professional development.

Admission To The Professional Education Semester And Student Teaching

Approval for admission to the professional education semester, including student teaching, involves meeting the following minimum requirements:

1. Complete Admission to the Teacher Education Program.
2. Submit a completed Request to Student Teach for Undergraduate form by December 1 for the Fall Semester or May 1 for the Spring Semester. The application may be found at ucmo.edu/teach. Any application received by the Office of Clinical Services and Certification after the December 1 or May 1 due dates will be assessed an additional charge of \$100. No late application will be accepted after the last Preliminary Meeting for Student Teachers. Those meeting dates are posted in the semester calendars located on the ucmo.edu/teach website.
3. Complete all coursework prior to student teaching.
4. Achieve a cumulative GPA of 2.75 or higher; content GPA of 3.0 or higher; Professional Education GPA of 3.0 or higher with no grade lower than a C. Those courses designated as Professional Education Courses for educator certification purposes are designated by a book symbol. Students must earn at least a C grade, and maintain at least a 3.0 GPA in all Professional Education Courses.
5. Obtain departmental recommendation in each area of student teaching, from each department or area in which student teaching placement is requested.
6. Obtain a TB test, a doctor's certificate or other evidence of good health, IF required by district where student teaching placement is requested.
7. Meet the UCM Residence requirements prior to student teaching, as described in the UCM Undergraduate catalog – Standards and Regulations.
8. Possess a current background check, on file with DESE.
9. Take the required Pearson Content Exam required by Missouri for your area of certification. Designate UCM to receive your scores electronically; your application for certification cannot be processed without receipt of your official score report.

NOTE: The Director of Clinical Services and Certification will not sign an academic contract for an undergraduate student requesting permission to teach while under contract with a school district unless there are unusual or extreme circumstances. Contact the Office of Clinical Services and Certification for additional information.

NOTE: DESE requirements for certification, including state-wide required assessments are under development. Updates will be available through your academic advisor, faculty advisor, and the Office of Certification and Student Teaching.

PROFESSIONAL EDUCATION REQUIREMENTS FOR SECONDARY EDUCATION, B-12 EDUCATION and K-12 EDUCATION

Bachelor of Arts, Bachelor of Science, Bachelor of Science in Education and the Bachelor of Music Education degree programs include the following additional professional education courses as part of the degree requirements. Majors and minors leading to certification to teach are listed in the respective departments in this catalog. Professional education requirements listed here apply to secondary, B-12, or K-12 program, with exceptions as noted in certain majors. This does not apply to the BSE in Special Education.

Sem. Hours

MAJOR REQUIREMENTS 30-35

UCM offers certification as indicated under Certification (see page 89) in the College of Education.

ADDITIONAL PROFESSIONAL EDUCATION REQUIREMENTS for Secondary, B-12, K-12 29-35

EDFL	2100	Foundations of Education	2
EDFL	2240	Educational Psychology	3
EDFL	4210	Tchg. of Rdg. in the Sec. School	2
EDFL	4300	Ed. Assessment & Evaluation	2
EDSP	2100	Ed. of the Exceptional Child	2
FLDX	2150	Introductory Field Experience	1
EDPSY	4230	Psychology of Adolescence, 3 or	
PSY	3220	Life-Span Development, 3	3
EDFL	3500	Sec. Tchg. & Behavioral Mgt, 3 or	
PE	3500	Tchg. & Mgt. PK-12 PE (PE majors only), 3 . . .	3
FLDX	3550	Practicum in Secondary Instruction, 1 or	
PE	3550	Practicum in Pre-K PE (PE majors only), 1 . . .	1
		Special methods in major field	2-3
		Secondary Field Experience II in major field (may be combined with special methods class or some other class as determined by the major department.	1
		Student Teaching semester	
FLDX	4468	Student Teaching Secondary II	4-6
FLDX	4595	Student Tchg. Secondary I, 3, 5 or 6, or	
FLDX	4495	Student Tchg. Elementary I, 3, 5, 6 or 8 (B-12 and K-12 may take this)	3-8

MINOR REQUIREMENTS 0-27

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements.

FREE ELECTIVES 0-7

See program listings for specific information concerning requirements and options for your certification area.

MINIMUM TOTAL 120

¹⁰Competency 10 course

Clinical Experiences for Teacher Education Students

Professional Development Schools And Clinical Faculty

UCM's education majors may participate in a field experience with one of the Professional Development Schools' partners. The Teacher Education Program has formal partnership agreements with Warrensburg, Crest Ridge, Holden, Grain Valley, Kingsville, and Knob Noster School Districts. Additional districts may be added to the PDS program over time. Many of the public school faculty from the districts serve as clinical faculty for UCM, and work with interns in the P-12 classrooms or present on educational issues in the university courses.

Field Experience

Education students are required to participate in early field/clinical experiences prior to student teaching. All education majors enroll in a six hour block of educational foundations courses, scheduled to provide flexibility for off-campus time in field experiences, typically taken at the sophomore level. The field experience portion of this block is incorporated in FLDX 2150 Introductory Field Experience. Early childhood and elementary majors have a field experience in EDFL 3210 (Methods of Reading Instruction). Early childhood majors have additional field experiences in EDSP 3151 (Community and Family Resources Practicum), ECEL 4830 (Early Childhood Curriculum) and ECEL 4400 (Classroom Management and Interactions). Elementary education majors have additional field experiences in EDFL 4250 (Practicum in Reading) and ECEL 4400 (Classroom Management and Interactions). Middle school majors have additional field experience in EDFL 4130 (Fundamentals of Middle Level Education), EDFL 4135 (Middle Level Curriculum and Assessment) and EDFL 4340 (The Engaging Middle Level Classroom). Secondary majors, after FLDX 2150 Introductory Field Experience, complete their second field experience in FLDX 3550 (Practicum in

Secondary Instruction) and their third in Secondary Field Experience II in their major field which is offered in conjunction with the special methods course in the Professional Education Semester.

Professional Education Semester

Early childhood, elementary and middle school majors using this catalog are required to student teach for 16 weeks, earning 12 semester hours during the Professional Education Semester. Early Childhood and Elementary Education majors will also be enrolled in ECEL 4159 Student Teaching Professional Seminar. Majors in special education using this catalog are required to student teach for 16 weeks, earning 12 semester hours during the Professional Education Semester. Secondary and K-12 education majors must plan for a senior semester in which they enroll full-time in a professional block of courses which includes student teaching. The 16 week semester for English and Speech/theater majors consists of two parts, four weeks on campus in 3 semester hours of course work and twelve weeks of student teaching (all day, five days a week in a school setting). Secondary, B-12 and K-12 majors customarily enroll in Secondary Field Experience II in their major field and FLDX 4595 and FLDX 4468. See the appropriate department program listing any variations in this requirement. Students following programs not clearly covered by these general statements or the department program listing should see the Director of Clinical Services and Certification for information. Elementary majors with a special education area of concentration/minor will be assigned two additional hours of student teaching. Attendance of all professional education seminar activities is required

CAREER AND TECHNOLOGY EDUCATION

The Department of Career and Technology Education
Grinstead 120
660-543-4452
ucmo.edu/cte

CAREER AND TECHNOLOGY TEACHER EDUCATION

Major, Bachelor of Science in Ed. Degree

Certification to teach business education subjects in grades 9-12, family and consumer sciences from birth to grade 12, or engineering and technology education in grades 9-12. (41-564)

The graduate with a Bachelor of Science in Education degree with a major in Career and Technology Teacher Education will use the knowledge and skills obtained in the program to:

- Meet all Missouri Standards for Teacher Educators (MOSPE).
- Pass the PRAXIS II subject area exam at the level set by the Missouri Department of Elementary and Secondary Education.
- Use technology, research skills, problem solving, communication and critical thinking within the teaching profession.
- Display professional habits including involvement in professional associations related to Career and Technology Education, continuous learning, and collegiality.

Sem. Hours

MAJOR REQUIREMENTS 47-50

MAJOR CORE REQUIREMENTS 5

CTE 1000	Introduction to CTE	2
CTE 4145	Curriculum Construction CTE	3

Students select from one of the following areas
(see departmental faculty advisors) **42-45**

Area 1 Business Teacher Education certification 9-12, 42 hours

ACCT 2101	Principles of Financial Accounting	3
BLAW 2720	Legal Environment of Business	3
BTE 4241	Coordination of Coop. Ed. Programs	2
BTE 4535	Data Input Technologies	2
BTE 4536	Integrated Productivity Applications	3
BTE 4550	Publishing Applications for Business	2
CTE 3110	Financial Management Education	3
CTE 4280	Implementing CTE Prog. & Lab Mgt.	3

CTE 4501	Managng Classroom Technologies	2
ECON 1010	Principles of Macroeconomics	3
MGT 3315	Management of Organizations	3
MGT 3325	Business Communications	3
MKT 3405	Marketing Policy	3
BTE 4210	Methods of Teaching Business & Marketing Ed. (see Prof. Ed. below)(3)	
Electives	. . . . .	7

Area 2 Family Consumer Sciences

Teacher Education certification birth-12, 42-45 hours

CFD 1010	Individual & Family Relationships	3
CFD 1220	Child Development	3
CFD 3230	Family Systems & Lifespan Development	3
CFD 3240	Parent-Child Interaction	3
CTE 3110	Financial Management Education	3
D&N 3340	Nutrition	3
ECEL 3260	Practicum in Child Development	1
FAME 1450	Fund. Apparel Design & Construction	3
FAME 2442	Textile Science	3
FAME 4410	Materials for Interior Furnishings	3
FCSE 2000	FCS Student Organizations	1
FCSE 3120	Family Resource Management	3
FCSE 3710	Foundations of Family Consumer Sciences Education	3
FOOD 2322	Food Preparation	3
CFD 4220	Sexuality Across the Lifespan, 3 or	
HED 1100	Personal Health, 3 or	
HED 4320	Teaching Sexuality Ed. in the School, 3..	3
FCSE 4740	Meth. of Teaching Family & Consumer Sciences (see Prof. Ed. below)(3)	
Electives	. . . . .	1-4

Area 3 Engineering and Technology

Teacher Education certification 9-12, 44 hours

BTE 4241	Coordination of Coop. Ed. Programs	2
CTE 1300	Introduction to Engineering Design	3
CTE 2000	Technology and Society	3
CTE 4125	Methods of Teaching Problem-based Learning (see Prof. Ed. below)(3)	
CTE 4280	Implementing CTE Programs & Lab Mgt.	3
CADD 1105	Basic AutoCAD	1
CADD 1170	Introduction to Computer Aided Drafting	2
ENGT 1510	Introduction to Manufacturing Processes	3
ENGT 2515	Applied Manufacturing Processes	3
ET 1020	General Electronics	3
IGEN 3116	Creative Problem Solving	3
SOT 4570	Computer Graphics	3
Electives	. . . . .	15

PROFESSIONAL EDUCATION REQUIREMENTS 34

EDFL 2100	Foundations of Education	2
EEDFL 2240	Ed. Psychology	3
EDFL 3500	Secondary Teaching & Behavioral Mgt.	3
EDFL 4210	Teaching Reading in the Sec. School	2
EDFL 4300	Educational Assessment & Evaluation	2
EDSP 2100	Education of Exceptional Child	2
FLDX 2150	Introductory Field Experience	1
FLDX 3550	Practicum in Secondary Instruction	1
PSY 4230	Psychology of Adolescence	3
BTE 4210	Methods of Teaching Business & Marketing Education, 3 or	
FCSE 4740	Methods of Teaching Family & Consumer Sciences, 3 or	
CTE 4125	Methods of Teaching Problem-based Learning, 3	3
Student Teaching Semester for Area 1:		
BTE 4220	Secondary Field Experience II	1
CTE 4135	Professional Preparation CTE	2
¹⁰ FLDX 4468	Student Teaching Secondary II	4
FLDX 4595	Student Teaching Secondary I	5
Student Teaching Semester for Area 2:		
CTE 4135	Professional Preparation CTE	2
FCSE 4725	Secondary Field Experience II	1

¹⁰ FLDX 4468	Student Teaching Secondary II	4
FLDX 4595	Student Teaching Secondary I	5
Student Teaching Semester for Area 3:		
CTE 4135	Professional Preparation CTE	2
¹⁰ FLDX 4468	Student Teaching Secondary II	4
FLDX 4595	Student Teaching Secondary I	5
T&OE 4120	Secondary Field Experience II	1

GENERAL EDUCATION REQUIREMENTS for Area 1 39

All students must complete a minimum of 42 credits hours in general education. See pages 46-49 for full listing of requirements.

The following general education classes are required by this major:

GE/BTE 1210	Essentials of Managing Information	2
GE/HIST 1350	History of the United States to 1877, 3 or	
GE/HIST 1351	History of the United States from 1877, 3	3
GE/POLS 1510	American Government	3
GE/EDFL 2240	Educational Psychology	(3)

GENERAL EDUCATION REQUIREMENTS for Area 2 36-39

All students must complete a minimum of 42 credits hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE/CHEM 1104	Intro. to the Sciences: Chemistry	4
GE/HED 1100	Personal Health . . . (if chosen for Area 2) (4)	
GE/HIST 1350	History of the United States to 1877, 3 or	
GE/HIST 1351	History of the United States from 1877, 3	3
GE/POLS 1510	American Government	3
GE/EDFL 2240	Educational Psychology	(3)

GENERAL EDUCATION REQUIREMENTS for Area 3 36

All students must complete a minimum of 42 credits hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE/CTE 2000	Technology and Society	(3)
GE/PHYS 1104	Intro. to the Sciences: Physics	4
GE/HIST 1350	History of the United States to 1877, 3 or	
GE/HIST 1351	History of the United States from 1877, 3	3
GE/POLS 1510	American Government	3
GE/EDFL 2240	Educational Psychology	(3)

FREE ELECTIVES (for Area 2) 0-3

MINIMUM TOTAL 120-123

¹⁰Competency 10 course

OCCUPATIONAL EDUCATION

Major, Bachelor of Science Degree

This traditional program, or "2+2" program designed to build upon an Associate Degree, may complete Missouri DESE Career and Technical Education (CTE) certification requirements for alternatively certified CTE teachers, particularly Skilled Technical Sciences and Health Sciences Instructors. UCM does not confer teacher certification for this major. (43-249)

The graduate with a Bachelor of Science degree with a major in Occupational Education will use the knowledge and skills obtained in the program to:

- Meet the Missouri Standards for the Preparation of Educators (MoSPE) at the introductory level or above.
- Develop a thorough understanding of instructional materials and their development.
- Produce and implement authentic student assessments.
- Disaggregate assessment data for improved student learning and performance in the 3 primary domains of learning; cognitive, psychomotor, and affective.
- Learn methods and techniques for teaching CTE students, including exceptional children.
- Become effective CTE classroom and laboratory managers.
- Assist CTE students prepare for college and/or career readiness.

Sem. Hours

MAJOR REQUIREMENTS 77-78

Educator Specialty Area must total: 37-38

GE/CTE 2000	Technology & Society	3
GE/CTE 3060	Technical Writing	3
¹⁰ CTE 4022	Teaching/Administration Intern	3
CTE 4145	Curriculum Construction in Career & Technology Education	3
CTE 4160	Meth. of Tchg. Career & Tech. Ed.	3
CTE 4165	Performance Assessment in Career Tech. Ed.	3
GE/EDFL 2240	Educational Psychology	3
EDSP 2100	Education of the Exceptional Child	2
SOT 4570	Computer Graphics	3
IGEN 3116	Creative Problem Solving	3
CTE 4110	Foundations of Career & Tech. Ed, 3 or	
CTE 4140	New Teacher Institute, 3	3
CTE 4150	Vocational Guidance, 3 or	
BTE 4241	Coord. of Cooperative Ed. Prog., 2 . . . 2-3	
CTE 4180	Adult Education & Training, 3 or	
EDFL 3500	Secondary Teaching & Behav. Mgt., 3 . . 3	

Teaching Specialty Area: 40

Teaching Specialty Area: Skilled Technical Sciences, Health Sciences, or technical training content area or other approved technical electives.

GE/EDFL 2240 must be taught by a state-approved two-year or four-year institution. CTE 4110, CTE 4140, CTE 4145, CTE 4150, and CTE 4160 must be taught by a state-approved four-year institution.

GENERAL EDUCATION REQUIREMENTS 34

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE/CTE 2000	Technology & Society	(3)
GE/CTE 3060	Technical Writing	(3)
GE/EDFL 2240	Educational Psychology	(3)

ELECTIVES (one hour must be upper-level (3000/4000) if BTE 4241 is chosen in the major) 8-9

MINIMUM TOTAL 120

¹⁰Competency 10 course

NOTE: GE/CTE 2000 and IGEN 3116 must be taken at UCM.

ADMINISTRATIVE SUPPORT

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (548)

Sem. Hours

MINOR REQUIREMENTS 16

BTE 4535	Data Input Technologies	2
*BTE 4536	Integrated Productivity Applications	3
BTE 4550	Publishing Applications for Business	2
GE/CTE 3060	Technical Writing	3
ACCT 2101	Principles of Financial Accounting	3
CTE 3110	Financial Management Education, 3 or	
GE/FIN 1820	Personal Finance, 3	3

*This course has a prerequisite not listed in the program; see specific class listing in the catalog for additional requirements.

BUSINESS TEACHER EDUCATION

Minor for a Bachelor's Degree

Certification to teach Business Education in grades 5-9 with a middle school-junior high school major.

NOTE: See Director of Clinical Services and Certification. (284)

Sem. Hours

MINOR REQUIREMENTS 21

GE	BTE	1210	Essentials of Managing Information	2
	BTE	4535	Data Input Technologies	2
	BTE	4536	Integrated Productivity Applications	3
	BTE	4560	Emerging Technologies for Business	3
GE	CTE	3060	Technical Writing	3
	CTE	3110	Financial Management Education	3
	CTE	4501	Managing Classroom Technologies	2
	CTE	4280	Implementing CTE Program & Lab Mgt.	3

NOTE: BTE 4210 Methods Tchg Busns & Mktg Ed 3, will be taken as a requirement for the Middle School/Junior High School degree.

EDUCATIONAL FOUNDATIONS AND LITERACY

The Department of Educational Foundations and Literacy
 Lovinger 3155
 660-543-4802
 ucmo.edu/edfl

Teacher Education programs in the Educational Foundations and Literacy are accredited by the National Council for Accreditation of Teacher Education and the Missouri Department of Elementary and Secondary Education. In addition, our program has been nationally recognized by the specialized professional association as follows: The Association of Middle Level Education (amle.org).

FAMILY AND CONSUMER SCIENCES

Minor for a Bachelor's Degree

Middle school-junior high school major; elementary education majors may use this as an area of concentration.
 (850)

				Sem. Hours
MINOR REQUIREMENTS				22
	CTE	3110	Financial Management Education	3
	FCSE	3120	Family Resource Management	3
	CFD	1220	Child Development	3
	CFD	3230	Family Sys. & Lifespan Dev.	3
	ECEL	3260	Practicum in Child Development	1
*	FOOD	2322	Food Preparation	3
*	D&N	3340	Nutrition	3
	FAME	1450	Fund. Apparel Design & Construction	3

*This course has a prerequisite not listed in the program; see specific class listing in the catalog for additional requirements.

MIDDLE SCHOOL-JUNIOR HIGH SCHOOL

Major, Bachelor of Science in Education Degree

Certification to teach language arts, grades 5-9, in two selected subject area.
 (41-840)

The graduate with a Bachelor of Science in Education degree with a major in Middle School/Junior High School will use the knowledge and skills obtained in the program to:

- Understand young adolescent development, and they provide opportunities that support student development and learning.
- Apply the underlying philosophical foundations of developmentally responsive middle level programs and schools, and work successfully within these organizational components.
- Understands middle level curriculum and assessment, and they use this knowledge in their practice.
- Apply content in their chosen teaching fields, and they create meaningful learning experiences that develop all young adolescents' competence in subject matter and skills.
- Use effective instruction and assessment, and they employ a variety of strategies for a developmentally appropriate climate to meet the varying abilities and learning styles of all young adolescents.
- Work collaboratively with family and community members, and they use that knowledge to maximize the learning of all young adolescents.
- Understand the complexity of teaching young adolescents, and they engage in practices and behaviors that develop their competence as professionals.

Sem. Hours

MAJOR REQUIREMENTS **61-63**

MAJOR CORE REQUIREMENTS **14**

EDFL	3230	Intro. to Language, Literacy & Literature in the Middle Level Classroom, Block One	4
EDFL	3240	Application of Content Area Literacy for Middle Level Learners, Block Two	4
EDFL	4130	Fundamentals of Middle Level Ed.	3
EDFL	4135	Middle Level Curriculum & Assessment	3

SUBJECT AREAS. All Middle School-Junior High majors must choose two subject areas from the following: **23-25**

Business Education **24**

GE	BTE	1210	Essentials of Managing Information	2
	BTE	4210	Methods of Teaching Business & Marketing Ed.	3
	BTE	4535	Data Input Technologies	2
	BTE	4536	Integrated Productivity Applications	3
	BTE	4560	Emerging Technologies for Business	3
GE	CTE	3060	Technical Writing	3
	CTE	3110	Financial Management Education	3
	CTE	4280	Implementing CTE Program & Lab Mgt.	3
	CTE	4501	Managing Classroom Technologies	2

Engineering and Technology **24**

INSTRUCTIONAL TECHNOLOGY

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor.
 Preparation for teaching computer/technology literacy in schools.
 (287)

				Sem. Hours
MINOR REQUIREMENTS				21
GE	CTE	2000	Technology & Society	3
	CTE	4501	Managing Classroom Technologies	2
	IGEN	3116	Creative Problem Solving	3
	INST	4100	Integrating Technology into Teaching	3
	INST	4300	Principles of Online Instruction	3
	INST	4310	Fund. Development for Educational Tech.	1
	INST	4330	Technology Troubleshooting for Educators	2
	INST	4400	Design & Production of Media for Instruction	3
	INST	4920	Practicum in Instructional Technology	1

TECHNOLOGY & ENGINEERING EDUCATION

Minor, Bachelor of Science in Ed. Degree

Certification to teach technology education in grades 5-9 available only with a major in middle school-junior high school
 (622)

				Sem. Hours
MINOR REQUIREMENTS				21
	CTE	1300	Intro. to Engineering Design	3
	CTE	1500	Gateway to Engineering	3
GE	CTE	2000	Technology & Society	3
	ENGT	1510	Intro. Manufacturing Processes	3
	IGEN	3116	Creative Problem Solving	3
	SOT	3022	Internship in Technology	3
			Departmentally approved elective	3

CTE 4125 Methods of Teaching Problem-based Learning 3
 Selecte 21 hours from CTE 21

Language Arts 24

EDFL 4230 Response to Intervention for Middle School English Language Arts: Block Three 4
 EDFL 4235 Methods of Tchg. Middle Level English Language Arts 3
 EDFL 4240 Integrated English Language Arts Curriculum & Assessment for Middle Level Learners: Block Four 4
 GE ENGL 1020 Composition I 3
 GE ENGL 1030 Composition II 3
 GE ENGL 2200 American Literature To 1865, 3 or
 GE ENGL 2205 American Literature 1865 to Present, 3 or
 GE ENGL 2210 British Literature to 1798, 3 or
 GE ENGL 2215 British Literature 1798 to Present, 3 or
 GE ENGL 2220 World Masterpieces, 3 3
 Electives 4

Math 25

GE MATH 1620 Contemporary Mathematics 3
 MATH 2821 Elements of Algebra 3
 MATH 2822 Elements of Geometry 3
 MATH 2823 Intro. Infinite Processes 5
 MATH 3800 Intro. Teaching Elementary & MS Math 2
 MATH 3802 Concepts & Methods Middle School Math 3
 MATH 3840 Strategies in Teaching Middle School Mathematics 3
 MATH 4851 Probability & Statistics Mid/HS Math 3

Science 24

STCH 4050 Science Teaching Methods 3
 Any BIOL, CHEM, EASC, PHYS courses 21

Social Science 24

ECEL 3420 Tchg. Social Studies & Economics in Elementary & Middle Schools 3
 GE HIST 1350 History of US to 1877, 3, or
 GE HIST 1351 History of US from 1877 3
 GE POLS 1510 American Government 3
 Any ANTH, ECON, GEOG, HIST, POLS, SOC courses 15

Speech/Theatre 23

GE THEA 2400 Discovering Theatre 3
 THEA 4984 Methods of Teaching Speech & Theatre 2
 Any COMM, THEA courses 18

PROFESSIONAL EDUCATION REQUIREMENTS 28

EDFL 2100 Foundations of Education 2
 GEEDFL 2240 Educational Psychology 3
 EDFL 4300 Ed. Assessment & Evaluation 2
 EDFL 4340 The Engaging Middle Level Classroom 3
 EDSP 2100 Ed. of the Exceptional Child 2
 FLDX 2150 Introductory Field Experience 1
 GE*PSY 4230 Psychology of Adolescence 3

Teaching methods course required for each subject area (hours included in the subject areas above)

Business Teacher: BTE 4210 Methods Tchg. Business & Marketing Ed. (3)
 Language Arts: EDFL 4235 Methods of Tchg. Middle Level English Language Arts (3)
 Engineering and Technology: CTE 4125 Meth. Tchg. Problem-based Learning (3)
 Mathematics: MATH 3840 Strategies for Tchg. Middle School Math (3)
 Science: STCH 4050 Science Teaching Methods (3)
 Social Sciences: ECEL 3420 Teaching Soc. St. & Econ. Elem. School (3)
 Speech Comm. & Theatre: THEA 4984 Meth. Tchg. Speech & Theatre (2)

Student Teaching Semester:
¹⁰FLDX 4497 Student Teaching Middle School I 6

FLDX 4498 Student Teaching Middle School II 6

GENERAL EDUCATION REQUIREMENTS 18-36

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GEHIST 1350 History of the United States to 1877, 3 or
 GEHIST 1351 History of the United States from 1877, 3 3
 GEPOLS 1510 American Government 3
 GEEDFL 2240 Educational Psychology (3)

FREE ELECTIVES 0-6

MINIMUM TOTAL 120

¹⁰Competency 10 course

EDUCATIONAL LEADERSHIP AND HUMAN DEVELOPMENT

The Department of Educational Leadership and Human Development
 Lovinger 4101
 660-543-4341
 ucmo.edu/elhd

Undergraduate programs in this department include Child and Family Development and Special Education. Popular General Education courses offered by this department include GE/CFD 1010 Individual and Family Relations and GE/LIS1600 University Library and Research Skills.

Graduate programs in this department include College Student Personnel Administration, Counseling, Library Science and Information Services, School Administration, and Special Education. ELHD is home to the UCM cohort of the University of Missouri Doctoral program in Educational Leadership and Policy Analysis.

CHILD AND FAMILY DEVELOPMENT

CHILD AND FAMILY DEVELOPMENT

Major, Bachelor of Science Degree
 (43-121)

Students will be:

- Able to think critically about problems and issues facing children and families.
- Prepared to use developmentally appropriate practices to promote the optimal development of diverse children and families.
- Competent to assume leadership roles in programs providing direct and support services to children and families.
- Articulate advocates for justice for families and children in both public and private arenas.
- Aware of and sensitive to ethical implications in their professional relationships with diverse families and children.

Students must earn a grade of C or better in all courses with a CFD prefix.
 Sem. Hours

MAJOR REQUIREMENTS 48

CFD 1220 Child Development 3
 CFD 1230 Observation of Children 2
 CFD 3230 Family Sys. & Lifespan Development 3
 CFD 3240 Parent-Child Interaction 3
 CFD 3250 Org. & Adm. of Programs 3
 CFD 3260 Youth Culture & Development 3
 CFD 3710 Field Experience in Child & Family Dev. 3
 CFD 4220 Sexuality Across the Lifespan 3
 CFD 4260 Adulthood 3
 CFD 4710 Internship 3
¹⁰CFD 4745 Senior Seminar 3
 CFD 4850 Family Policy & Advocacy 3

SOC	2805	Introduction to Social Research	3
AE	1450	Valuing Differences	1
Electives from the following 6			
CFD	4250	Selected Issues in Child & Family Development	3
CFD	4510	Early Childhood Approaches	3
CFD	4520	Multicultural Study & Approaches with Families	3
CFD	4530	Transition to Marriage	3
CFD	4540	Addiction and the Family	3
CFD	4550	Health & Human Services	3
CFD	4560	Divorce	3
CFD	4570	Death, Loss, & Grief Across the Lifespan.	3
CFD	4580	Resilience in Children & Adolescents	3
CFD	4590	Health Issues Childhood & Adolescence	3
Elective from the following 3			
CTE	3110	Financial Management Education	3
FCSE	3120	Family Resource Management	3

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GE/CFD	1010	Individual & Family Relationships	3
GE/CEC	2110	Diversity & Social Justice	3
GE/HIST	1350	History of the United States to 1877, 3 or	
GE/HIST	1351	History of the United States from 1877, 3	3
GE/PSY	1100	General Psychology, 3 or	
GE/SOC	1800	General Sociology	3

FREE ELECTIVES (contact CFD faculty advisor for guidance). 30

MINIMUM TOTAL 120

¹⁰Competency 10 course

CHILD AND FAMILY DEVELOPMENT

Minor, Bachelor of Science Degree (571)

Sem. Hours

MINOR REQUIREMENTS 21

GE/CFD	1010	Individual & Family Relationships	3
CFD	1220	Child Development	3
CFD	3230	Family Systems & Lifespan Development	3
Electives from the following: 6			
CFD	3260	Youth Culture & Development	3
CFD	4250	Selected Issues in Child & Family Development	3
CFD	4520	Multicultural Study & Approaches with Families	3
CFD	4530	Transition to Marriage	3
CFD	4540	Addiction and the Family	3
CFD	4550	Health & Human Services	3
CFD	4560	Divorce	3
CFD	4570	Death, Loss, & Grief Across the Lifespan.	3
CFD	4580	Resilience in Children & Adolescents	3
CFD	4590	Health Issues Childhood & Adolescence	3
Electives in Child and Family Development 6			

LIBRARY SCIENCE AND INFORMATION SERVICES

This program offers a popular freshman-level course **CE LIS 1600** and other courses that may serve as electives in undergraduate programs. These are listed in the Course Descriptions section of this catalog. It also offers a graduate program leading to certification as school library media specialists (see Graduate Catalog for details).

CE LIS 1600 addresses General Education Competency 5, Skills-

Acquiring and Managing Information Strategies. Students learn how to use library resources and develop strategies for success in on-campus and online classes. Those who have taken **CE LIS 1600** are more likely to graduate on time.

SPECIAL EDUCATION

Accreditation

The Special Education program is accredited by the Council for Exceptional Children (CEC). The Council for Exceptional Children (CEC) is located at 1110 North Glebe Road, Suite 300, Arlington, VA 22201; phone 703-620-3660; email service@cec.sped.org; web page <http://cec.sped.org>.

Those courses designated as Professional Education Courses for educator certification purposes are designated by a book symbol. Students must earn at least a C grade, and maintain at least a 2.5 GPA in all Professional Education Courses.

SPECIAL EDUCATION

Major, Bachelor of Science in Education Degree

Certification to teach cross-categorical disabilities K-12; severely developmentally disabled B-12; or early childhood special education Birth-Grade 3. (41-784)

The graduate with a Bachelor of Science in Special Education will apply knowledge and skills obtained in the program to:

- Understand the philosophical, historical, and legal foundations of the field of special education.
- Identify the characteristics of exceptional learners in order to provide for accurate selection of programs and learning opportunities.
- Become proficient in the use of assessment devices enabling effective diagnosis, evaluation and programming for exceptional learners.
- Develop a thorough understanding of instructional content and best practices for children and youth with exceptional learning needs.
- Plan and manage the teaching and learning environment for students with disabilities in a variety of educational settings.
- Understand the causes of student behavior and social interaction skills.
- Develop effective communication and collaborative partnerships among educational professionals, parents, and stakeholders in the education of children and youth with exceptional learning needs
- Practice in the field of special education using established professional and ethical practices and resources for the enhanced learning of all children.

Sem. Hours

MAJOR REQUIREMENTS 52-57

CORE REQUIREMENTS – All Certification Areas. 26

EDSP	4140	Collaborating With Families of Exceptional Children	3
EDSP	4360	Behavioral Mgt. Techniques	2
EDSP	4361	Practicum in Behav. Mgt. Tech.	1
EDSP	4620	Eval. of Abilities & Achievement	3
EDSP	4700	IEP & the Law	3
HED	4330	First Aid & CPR	1
EDFL	3210	Methods of Reading Instruction	3
ECEL	2310	Computer/Technology in Education	2
ECEL	1310	Physics for Teachers, 3 or	
ECEL	1320	Biology for Teachers, 3	3
ART	3910	Art for Elementary Schools	2
MATH	3890	Concepts & Methods of Teaching for Special Education	3

Area of Certification Requirements 26-31

Area 1 Cross-Categorical Disabilities 26			
EDFL	3215	Teaching Reading in Content Fields	3
HED	3310	Meth. in Elem. School Health	2
EDSP	4150	Career Development for Students with Disabilities	2
EDFL	4220	Analysis & Correction of Reading Disabilities	2

EDFL	4250	Practicum in Reading	1
EDSP	4385	Introduction to Cross-Categorical Special Education	3
CD	4402	Language Acquisition for Children with Developmental Disabilities	2
EDSP	4421	Methods of Cross-Cat SE I: ID/OHI	3
EDSP	4422	Methods of Cross-Cat II: LD	3
EDSP	4423	Methods of Cross-Cat III: E/BD	3
MATH	4890	Math. for Special Education	2
Area 2 Severely Developmentally Disabled 28			
NUR	4060	Physical & Health Needs of the Medically Fragile Child	3
HED	3310	Meth. in Elem. School Health	2
EDSP	4310	Intro. to Students with Autism & Severe Developmental Disabilities	2
EDSP	4330	Curr. & Meth. for Tchg. Students with Autism & Severe Dev. Disabilities I.	3
PE	4340	Adapted Physical Education	3
EDSP	4350	Augmentative & Alter. Comm.	3
EDSP	4370	Screening, Diagnosing & Prescribing Instruction	3
CD	4402	Language Acquisition for Children with Dev. Disabilities	2
EDSP	4450	Curr. & Meth. for Tchg. Students with Autism & SDD II.	3
EDSP	4470	Perceptual Motor Training for Students with Disabilities	2
MATH	4890	Math. for Special Education	2
Area 3 Early Childhood Special Education 31			
EDSP	3150	Community & Fam. Resources	2
EDSP	3151	Community & Fam. Resources Practicum	1
EDSP	4320	Intro. to Early Child. Spec. Ed.	3
EDSP	4350	Augmentative & Alter. Comm.	3
EDSP	4370	Screening, Diagnosing & Prescribing Instruction	3
EDSP	4440	Curriculum & Methods in Tchg. Early Childhood Special Ed.	3
EDSP	4470	Perceptual Motor Training for Students with Disabilities	2
CD	2000	The Bases of Speech & Lang.	2
CFD	1220	Child Development	3
CFD	1230	Observation of Children	2
D&N	2310	Early Childhood Nutr. & Health	2
ECEL	3220	The Teaching of Language Arts	3
EDFL	3410	Children's Literature	2

PROFESSIONAL EDUCATION REQUIREMENTS – Cross-Categorical Disabilities and Severely Developmentally Disabled 23-26

EDFL	2100	Foundations of Education	2
EDFL	2240	Educational Psychology	3
EDSP	2100	Ed. of the Exceptional Child	2
FLDX	2150	Introductory Field Experience	1
PSY	2220	Child Psychology, 3 and	
PSY	4230	Psychology of Adolescence, 3 or Lifespan Development	3-6
Student Teaching semester			
FLDX	4395	Student Tchg. In Spec. Ed. I	8
FLDX	4468	Student Tchg. Secondary II	4

PROFESSIONAL EDUCATION REQUIREMENTS – Early Childhood Special Education 23-25

ECEL	3468	Community, School & Family Connections	3
EDFL	2100	Foundations of Education	2
EDFL	2240	Educational Psychology	3
EDSP	2100	Ed. of the Exceptional Child	2
FLDX	2150	Introductory Field Experience	1
Student Teaching semester			
FLDX	4395	Student Tchg. in Spec. Ed. I	6-8
FLDX	4396	Student Tchg. in Spec. Ed. II	6

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GE MATH	1620	Contemporary Mathematics	3
GE HIST	1350	History of the United States to 1877, 3 or	
GE HIST	1351	History of the United States from 1877, 3	3
GE POLS	1510	American Government	3
GE GEOG	2212	World Geography	3

FREE ELECTIVES 0-3

MINIMUM TOTAL 120

¹⁰Competency 10 course

SPECIAL EDUCATION/ELEMENTARY EDUCATION

Minor, Bachelor of Science in Education Degree

We encourage all teacher education majors who have a willingness to work with a diverse population of special needs children to declare a Special Education minor, with the understanding that this combination will not lead to DESE Certification in Special Education EXCEPT for Elementary Education 1-6 (41-285) majors. (854)

Sem. Hours

MINOR REQUIREMENTS 27

EDSP	4140	Collaborating With Families of Exceptional Children	3
EDSP	4150	Career Development for Students With Disabilities	2
EDSP	4360	Behavioral Mgt. Techniques	2
EDSP	4361	Practicum in Behavioral Management Techniques	1
EDSP	4620	Evaluation of Abilities & Achievements	3
EDSP	4700	IEP & the Law	3
EDSP	4385	Intro. to Cross Categorical Special Education	3
EDSP	4420	Methods of Cross-Categorical Special Education	3
CD	4402	Language Acquisition for Children with Dev. Disabilities	2
MATH	4890	Math for Special Education	2
PSY	3220	Lifespan Development, 3, or	
PSY	4230	Psychology of Adolescence, 3	3

NOTE: Student teaching hours are not part of the minor program, but Elementary Education 1-6 students will be enrolled in FLDX 4495 for 8 semester hours and FLDX 4396 for 6 semester hours. The student teaching placement for special education will be at the secondary level (grades 5-12).

ELEMENTARY AND EARLY CHILDHOOD EDUCATION

The Department of Elementary and Early Childhood Education

Lovinger 3300
660-543-4235
ucmo.edu/ecel

Teacher Education programs in the Department of Elementary and Early Childhood Education are accredited by the National Council for Accreditation of Teacher Education (NCATE) and the Missouri Department of Elementary & Secondary Education. Our programs have been nationally recognized by their specialized professional associations as follows: Early Childhood Education by the National Association for Education of Young Children (naeyc.org); Elementary Education by the Association for Childhood Education International (www.acei.org).

The BSE in Elementary Education leads to certification in Missouri to teach Grades 1-6 and the BSE in Early Childhood Education leads to certification in Missouri to teach Birth-Grade 3. The Elementary/Early Childhood dual certification program leads to certification in both of these levels and dual certification is also available for elementary with special education (k-12 cross-categorical). Students interested in two levels of certification other than the options listed should see the Director of Clinical Services and Certification, Lovinger 2170.

Two Pathways to Complete Major & Certification Requirements

Prior to entering Teacher Education, Elementary and Early Childhood Education majors must designate one of two program pathways through which to complete the junior and senior level coursework:

- The Clinical Pathway, which offers education courses in a series of integrated field-based blocks at the junior level and a full senior-year student teaching experience.
- The Traditional Pathway, which offers courses in a more traditional format.

All graduation and certification requirements will be met via either pathway.

Clinical Pathway

Elementary Education majors (Early Childhood B-3, Elementary 1-6, or dual certification Elementary 1-6 with an Early Childhood Education B-3 minor) can apply for the Clinical Pathway. Admission to the Clinical Pathway has two levels.

Level 1: A student can apply for the Clinical Pathway at any time prior to taking any methods courses in the core areas. The following criteria must be met:

- Completion of Clinical Pathway application online form
- Completion of and signature on Clinical Candidate Expectations Contract
- Cumulative GPA minimum of 2.75
- Major GPA minimum of 3.0
- Current and clear background check
- Grade of C or higher in specified professional education courses as specified by Admission to Teacher Education requirements

Level 2: The clinical candidate must be fully admitted into Teacher Education prior to entering the second clinical block of his/her program. The following criteria must be met:

- Cumulative GPA minimum of 2.75
- Major GPA minimum of 3.0
- Current and clear background check
- Passing score on all sections of the Entry Level General Knowledge and Skills Assessment required by DESE
- A B-average in first clinical block
- Satisfactory dispositions assessment completed during first clinical block

The junior and senior levels in the program are field-based blocks which integrate core content (language arts/literacy, math, science, and social studies). All courses are listed as co-requisites and are embedded within the context of practice in a UCM Partner School. Students who need to fulfill a part of a block need to consult with a departmental faculty advisor.

ELEMENTARY EDUCATION

Major, Bachelor of Science in Education Degree

EARLY CHILDHOOD, Birth-Grade 3

Major Option, Bachelor of Science in Education Degree

(41-286)

Certification to teach early childhood education, Birth-Grade 3.

Sem. Hours

MAJOR REQUIREMENTS Clinical Pathway 61

Junior Block I: Methods for the Early Learner (preK-K) 10	
ECEL 3100	Early Childhood Assessment & Screening 2
ECEL 3300	Literacy & Communication Arts for the Young Learner 1
ECEL 3400	Language Development 2
ECEL 3500	Social Studies for Early Childhood 1
ECEL 3600	Science for Early Childhood 1

ECEL 3800	Math for Early Childhood 1
ECEL 3150	Early Childhood Practicum 2
Junior Block II: Methods for the Young Learner (grades 1-3) 8	
ECEL 3151	Young Learner Practicum (1-3) 2
ECEL 3310	Literacy & Communication Arts for the Young Learner 2
ECEL 3510	Social Studies & Economics for the Young Learner 1
ECEL 3610	Science for the Young Learner 1
MATH 3810	Math for the Young Learner 2
Senior Block I: Senior Experience 12	
ECEL 4120	Curriculum Design & Assessment 3
ECEL 4140	Communication Arts Integration 5
ECEL 4400	Classroom Management & Interactions 3
MATH 4800	Curriculum Design & Assessment in Math 1
Non-block courses 31	
ART 3910	Art for Elementary Schools 2
CFD 1220	Child Development 3
CFD 3250	Org. & Adm. of Programs for Young Children 3
D&N 2310	Early Childhood Nutr. & Health 2
ECEL 2830	Early Childhood Principles & Observation 3
ECEL 3468	Community, School & Family Connections 3
EDFL 3410	Children's Literature 2
EDSP 3150	Community & Family Resources 2
EDSP 3151	Community & Family Resources Practicum 1
PE 2410	Movement Skills & Activities for Primary Grades 2
HED 3310	Meth. in Elem. School Health 2
HED 4330	First Aid & CPR 1
MUS 3301	Music for Elementary Schools 2
ECEL 1310	Physics for Teachers, 3 or 3
ECEL 1320	Biology for Teachers, 3 3

OR

Sem. Hours

MAJOR REQUIREMENTS Traditional Pathway 65

ART 3910	Art for Elementary Schools 2
CD 2000	The Bases of Speech & Lang. 2
CFD 1220	Child Development 3
CFD 3250	Org. & Adm. of Programs for Young Children 3
D&N 2310	Early Childhood Nutr. & Health 2
ECEL 2310	Computer/Technology in Education 2
ECEL 2830	Early Childhood Principles 3
ECEL 3260	Pract. in Child Development 1
ECEL 3220	The Teaching of Language Arts 3
ECEL 3420	Tchg. Social Studies & Economics in Elementary & Middle Schools 3
ECEL 3468	Community, School & Family Connections 3
ECEL 3850	Development & Learning Through Play 3
ECEL 4400	Classroom Management & Interactions 3
ECEL 4830	Early Childhood Curriculum 3
ECEL 4350	Elem. Science Tchg. Strategies 3
EDFL 3210	Methods of Reading Instruction 3
EDFL 3410	Children's Literature 2
EDSP 3150	Community & Family Resources 2
EDSP 3151	Community & Family Resources Practicum 1
EDSP 4370	Screening, Diagnosing & Prescribing Instructions 3
HED 3310	Meth. in Elem. School Health 2
HED 4330	First Aid & CPR 1
MATH 3800	Introduction to Teaching Elementary & Middle School Mathematics 2
MATH 3801	Concepts & Methods in Elementary School Mathematics 3
MUS 3301	Music for Elementary Schools 2
PE 2410	Movement Skills & Activities for Primary Grades 2

ECEL 1310	Physics for Teachers, 3 or	
ECEL 1320	Biology for Teachers, 3	3
PROFESSIONAL EDUCATION REQUIREMENTS (page 90) 23		
ECEL 4400	Classroom Management & Interactions	(3)
EDFL 2100	Foundations of Education	2
GEEDFL 2240	Educational Psychology	3
EDSP 2100	Education of the Exceptional Child	2
FLDX 2150	Introductory Field Experience	1
PSY 2220	Child Psychology, 3 or	
PSY 3220	Lifespan Development, 3	3
Student Teaching Semester:		
ECEL 4150	Student Teaching Professional Seminar	2
FLDX 4493	Student Teaching Early Childhood	6
¹⁰ FLDX 4496	Student Tchg. Elementary II	4

GENERAL EDUCATION REQUIREMENTS 39

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GECECEL 2110	Diversity and Social Justice	3
GEEDFL 2240	Educational Psychology	(3)
GEHIST 1350	History of US to 1877, 3 or	
GEHIST 1351	History US from 1877, 3	3
GE MATH 1620	Contemporary Mathematics	3
GE MATH 1820	Introduction to Mathematical Modeling	3
GE POLS 1510	American Government	3

MINIMUM TOTAL 123-127

¹⁰Competency 10 course

ELEMENTARY EDUCATION

Major, Bachelor of Science in Education Degree

GRADES 1-6

Major Option, Bachelor of Science in Education Degree (41-285)

Certification to teach elementary in grades 1-6.

MAJOR REQUIREMENTS Clinical Pathway 45

Junior Block II: Methods for the Young Learner (grades 1-3) 8		
ECEL 3151	Young Learner Practicum (1-3)	2
ECEL 3310	Literacy & Communication Arts for the Young Learner	2
ECEL 3510	Social Studies & Economics for the Young Learner	1
ECEL 3610	Science for the Young Learner	1
MATH 3810	Math for the Young Learner	2
Junior Block III: Methods for the Intermediate Learner (grades 4-6) 8		
ECEL 3152	Interm. Learner Practicum (Grades 4-6)	2
ECEL 3320	Literacy & Communication Arts for the Intermediate Learner	2
ECEL 3520	Social Studies and Economics for the Intermediate Learner	1
ECEL 3620	Science for the Intermediate Learner	1
MATH 3820	Mathematics for the Intermediate Learner	2
Senior Block I: Senior Experience 12		
ECEL 4120	Curriculum Design & Assessment	3
ECEL 4140	Communication Arts Integration	5
ECEL 4400	Classroom Management & Interactions	3
MATH 4800	Curriculum Design & Assessment in Math	1
Non-block courses 17		
ART 3910	Art for Elementary Schools	2
ECEL 3468	Community, School & Family Connections	3
EDFL 3410	Children's Literature	2
HED 3310	Meth. in Elem. School Health	2
HED 4330	First Aid & CPR	1
MUS 3301	Music for Elementary Schools	2
PE 3420	Elem. School Physical Ed. Activities	2
ECEL 1310	Physics for Teachers, 3 or	
ECEL 1320	Biology for Teachers, 3	3

OR

MAJOR REQUIREMENTS Traditional Pathway 45

ECEL 2310	Computer/Technology in Education	2
ECEL 3220	The Teaching of Language Arts	3
ECEL 3420	Tchg. Social Studies & Economics in Elementary & Middle Schools	3
ECEL 3468	Community, School & Family Connections	3
ECEL 4350	Elem. Science Tchg. Strategies	3
ECEL 4400	Classroom Management & Interactions	3
ART 3910	Art for Elementary Schools	2
EDFL 3210	Methods of Reading Instruction	3
EDFL 3215	Tchg. Reading in Content Fields	3
EDFL 3410	Children's Literature	2
EDFL 4220	Analysis & Corr. of Rdg. Disabil.	2
EDFL 4250	Practicum in Reading	1
HED 3310	Meth. in Elem. School Health	2
HED 4330	First Aid & CPR	1
MATH 3800	Introduction to Teaching Elementary & Middle School Mathematics	2
MATH 3801	Concepts & Methods in Elementary School Mathematics	3
MUS 3301	Music for Elementary Schools	2
PE 3420	Elem. School Phys. Ed. Activities	2
ECEL 1310	Physics for Teachers, 3 or	
ECEL 1320	Biology for Teachers, 3	3

Sem. Hours

TEACHING AREA OF CONCENTRATION REQUIREMENTS 15

A 15 hour block of teaching area of concentration in a teaching/specialty area is required for elementary majors. Students will work with their advisors and Department to choose to which 15 hours will meet this requirement (may overlap with general education)..... 15

OR

TEACHING AREA OF CONCENTRATION FOR A SECOND AREA OF CERTIFICATION OPTION 21-34

For elementary education gr 1-6 majors, one of the following areas may be completed as a second area of certification. Any of these options will add time and hours to completion:

- Early Childhood B-3rd grade (24 s.h.) - see below for Early Childhood Education minor for the Clinical or Traditional Pathway
- Health Education K-12th grade (30-32 s.h.), (cert in HED requires more than the minor coursework)
- Middle School 5-9 in a specified content area (Mathematics, Science, Social Studies, Speech Comm/Theater) (9 s.h.+23-25 s.h. in content area)
- Special Education K-12 cross-categorical** (24-27 s.h.), Modern Language (French or Spanish K-12th grade) (21 s.h.). See your advisor for dual certification plan of study for any of the above options.

**Note: Elementary majors with special education minor will be assigned two additional hours of student teaching

See your academic advisor for dual certification plan of study for any of the above options.

PROFESSIONAL EDUCATION REQUIREMENTS 23

ECEL 4400	Classroom Management & Interactions	(3)
EDFL 2100	Foundations of Education	2
GEEDFL 2240	Educational Psychology	3
EDSP 2100	Ed. of the Exceptional Child	2
FLDX 2150	Introductory Field Experience	1
PSY 2220	Child Psychology, 3 or	
PSY 3220	Lifespan Development, 3	3
Student Teaching semester		
ECEL 4150	Student Teaching Professional Seminar	2
FLDX 4495	Student Tchg. Elementary I	6
¹⁰ FLDX 4496	Student Tchg. Elementary II	4

GENERAL EDUCATION REQUIREMENTS 39

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GECECEL	2110	Diversity and Social Justice.	3
GEEDFL	2240	Educational Psychology.	(3)
GEHIST	1350	History of US to 1877, 3 or	
GEHIST	1351	History US from 1877, 3	3
GE MATH	1620	Contemporary Mathematics.	3
GE MATH	1820	Introduction to Mathematical Modeling	3
GE POLS	1510	American Government	3
MINIMUM TOTAL			122

¹⁰Competency 10 course

SCIENCE

Minor, Bachelor of Science in Education Degree

Elementary education majors 1-6 may use this as an area of concentration. This minor is not available for secondary or K-12 education majors. (821)

Sem. Hours

MINOR REQUIREMENTS 24

ECEL	1310	Physics for Teachers	3
ECEL	1320	Biology for Teachers	3
GE EASC	1004	Introduction to Geology	4
EASC	3010	Environmental Geology	3
EASC	3114	Meteorology	3
GE BIOL	1004	Intro. to the Sciences: Ecology	4
GE CHEM	1104	Intro. to the Sciences: Chemistry	4

EARLY CHILDHOOD EDUCATION

Minor, Bachelor of Science in Education Degree.

Certification to teach grades B-3 only with an elementary education major or as part of dual certification (B-6); available with no certification when used with other major areas.

(723)

Sem. Hours

Second Certification area requirements Clinical Pathway. 26

CFD	1220	Child Development	3
CFD	3250	Org. & Adm. of Programs for Young Children	3
D&N	2310	Early Childhood Nutr. & Health	2
ECEL	2830	Early Childhood Principles & Observation	3
EDSP	3150	Community & Family Resources.	2
EDSP	3151	Community & Family Resources Practicum	1
PE	2410	Movement Skills & Activities for Primary Grades, 2 or	
PE	3420	Elem. School Physical Ed. Activities, 2.	2
Junior Block I: Methods for the Early Learner (preK-K) 10			
ECEL	3100	Early Childhood Assessment & Screening	2
ECEL	3150	Early Childhood Practicum	2
ECEL	3300	Literacy & Comm. Arts for Early Childhood	1
ECEL	3400	Language Development	2
ECEL	3500	Social Studies for Early Childhood	1
ECEL	3600	Science for Early Childhood	1
ECEL	3800	Math for Early Childhood	1

Sem. Hours

Second Certification area requirements Traditional Pathway 28

ECEL	2830	Early Childhood Principles & Observation	3
ECEL	3260	Pract. in Child Development	1
ECEL	3850	Development & Learning Through Play	3
ECEL	4830	Early Childhood Curriculum	3
EDSP	3150	Community & Family Resources	2
EDSP	3151	Community & Family Resources Practicum	1
EDSP	4370	Screening, Diagnosing & Prescribing Instructions	3
CD	2000	The Bases of Speech & Lang.	2
CFD	1220	Child Development	3
CFD	3250	Org. & Adm. of Programs for Young Children	3
D&N	2310	Early Childhood Nutr. & Health	2
PE	2410	Movement Skills & Activities for Primary Grades, 2 or	
PE	3420	Elem. School Physical Ed. Activities, 2.	2

HARMON COLLEGE OF BUSINESS AND PROFESSIONAL STUDIES

The Harmon College of Business and Professional Studies

Ward Edwards 1600

660-543-4560

Fax 660-543-8350

ucmo.edu/hcbps

The Harmon College of Business and Professional Studies is comprised of:

- The School of Business Administration (SoBA)
 - The Department of Economics, Finance and Marketing
 - The Department of Management
 - The School of Accountancy and Computer Information Systems
- The School of Professional Studies
 - The Department of Aviation
 - The Department of Communication Disorders and Social Work
 - The Department of Criminal Justice
 - The Department of Military Science and Leadership
 - The Missouri Safety Center

The back of this catalog includes course descriptions of all classes taught at the undergraduate level. Course descriptions can also be found online in MyCentral.

NOTE: Business Teacher Education can be found with the College of Education degrees.

College Mission

We are a student-centered and professional community committed to continuous innovation and excellence in education, research and service.

SCHOOL OF BUSINESS ADMINISTRATION

The School of Business Administration is comprised of:

- The Department of Economics, Finance and Marketing
- The Department of Management
- The School of Accountancy and Computer Information Systems

Accreditation

The School of Business Administration and the Accountancy program are accredited by AACSB International located at 777 South Harbour Island Boulevard, Suite 750, Tampa, FL 33602; phone 813-769-6500; web page aacsb.edu.

Bachelor of Science in Business Administration Degree Program Statement of Policy

Admission to B.S.B.A. Programs. Acceptance and registration in business administration courses or the declaration of intent to complete

a business major do not guarantee admission to the B.S.B.A. programs. A student is not officially admitted to the B.S.B.A. until he/she is notified in writing by a representative of the SoBA. Only those students who have been officially admitted to the B.S.B.A. program may file for an application for graduation for the B.S.B.A. degree.

The desire of the faculty in the SoBA is for all UCM students to succeed. To facilitate and support (1) overall academic program quality, (2) student progress through his/her academic program at the desired rate and (3) to better ensure receiving the maximum benefit from the curriculum design, students who desire to earn a B.S.B.A. degree are to enroll and take courses that are specifically designed for their academic classification. This means that freshmen (those who have completed 0-29.5 semester hours of college credit) who take courses within the SoBA will enroll in 1000 level courses only, sophomores (completed 30-59.5 semester hours) will enroll in 2000 or 1000 level courses, juniors (completed 60-89.5 semester hours) will enroll in 3000, 2000, or 1000 level courses and seniors (all students who have completed 90 semester hours) will enroll in 4000 level courses or below.

All UCM students enrolled in business and economics courses are required to comply with prerequisites for those courses.

Students who have not been admitted to a B.S.B.A. degree program may not enroll in more than a total of 30 semester hours in courses with the following prefixes: ACCT, CIS, ESE, FIN, HRM, MKT, MGT. **

**Deviations from this limit must be approved in writing by the dean of the Harmon College of Business and Professional Studies.

Bachelor of Science in Business Administration Admission Requirements.

Admission to all B.S.B.A. degree programs is conditional upon the completion of the departmental requirements and the following prerequisites:

1. The following pre-admission courses:

ACCT 2101 Principles of Financial Accounting 3

ACCT 2102 Principles of Managerial Accounting . . . 3

BLAW 2720 Legal Environment of Business 3

GE/CIS 1600 Business Information Management 3

GE/ECON 1010 Principles of Macroeconomics 3

ECON 1011 Principles of Microeconomics 3

FIN 2801 Business Statistics I 3

GE/MATH 1111 College Algebra 3

2. All students pursuing a B.S.B.A degree must earn a letter grade of C or better in each preadmission course.

3. Attainment of a 2.25 or above (2.65 or above for admission to the School of Accountancy, 2.40 for Finance) grade-point average on a scale of 4.00 for credit hours completed at UCM and cumulative GPA and attainment of 2.25 or above (2.65 or above for admission to the School of Accountancy, 2.40 for Finance) grade-point on the 24 semester hours of pre-admission courses.

4. Transfer students from other colleges and universities must meet all degree program admission requirements. Transfer students may take appropriate additional course work to fulfill admission requirements.

5. Admission to the B.S.B.A. program is in addition to university admission. Students will be admitted to the B.S.B.A. program once all admission criteria is met. Students are responsible to ensure that they have met all pre-admission criteria and have been officially admitted to the B.S.B.A. program.

Additional Bachelor of Science in Business Administration Graduation Requirements.

In addition to specified major and other requirements, all students graduating with a B.S.B.A. degree must satisfy the following requirements:

1. Students are required to earn at least 50 percent of their required business major credit hours for a B.S.B.A. degree at UCM.
2. Students must achieve a minimum cumulative grade-point average of 2.25 (2.65 for Accountancy, 2.40 for Finance).

Transfer of Credit

Students planning to transfer to UCM should expect to complete most major business courses during their junior and senior years. A student from a two-year or four-year institution may transfer pre-admission courses equivalent to those required for the B.S.B.A. degree at UCM. Transfer

students from four-year institutions should obtain transfer information from the academic department offering the major.

Upper-level (3000/4000) courses cannot generally be transferred from a two-year institution and applied to a B.S.B.A. degree. However, the department chair responsible for the UCM course may elect to allow such a transfer for equivalent credit. Before the department chair may accept the transfer course for equivalent credit, the course must be "validated" through a departmentally administered examination or successful completion of a more advanced course in the discipline.

The specific validation requirement to be applied will be designated by the department chair. The validation policy for the SoBA is consistent with policies and guidelines at comparable business schools and is in effect for all students desiring to transfer courses completed at a community or junior college. Upper-level (3000/4000) course work transferred from a four-year institution must be reviewed by the department chair before such work can be applied to a B.S.B.A. degree. The department chair may choose to apply the validation requirement to such transfers.

**Bachelor of Science in Business Administration
Core Courses.**

All B.S.B.A. degree program students are required to successfully complete carefully selected and designed 3000 and 4000 level business core courses. Students may enroll in 3000 level core courses after successfully completing 59.5 semester hours and may enroll in 4000 level core courses after successfully completing 89.5 semester hours. Prerequisite course requirements are to be complied with at all levels of the core and in other UCM business and economics courses. Exception to these rules concerning core courses may be granted by the chair of the department in the SoBA in which the course is offered. SoBA 3000 and 4000 level core courses are listed as an integral part of departmental academic programs. Please refer to the following pages of this section of the UCM catalog for a complete listing of core and major courses required by the faculty in each department in the SoBA.

The SoBA Integrative Business Experience (IBE)

The School of Business Administration students at the University of Central Missouri have the option to participate in a program that links their learning to a real-world experience. (This program is required for Management, Entrepreneurship and Social Enterprise, Hospitality Management and CIS majors.) This program, called the Integrative Business Experience (IBE), was inspired by the MG101 program at Bucknell (Miller, 1991) and the Integrated Business Core (Michaelsen, 1999) program at the University of Oklahoma. IBE students will be required to create and manage two significant enterprises: an actual start-up company and a hands-on community service project. Thus, IBE students will have the opportunity to: 1) develop interpersonal and group-interaction skills in a work-like setting, and 2) learn from their experience of trying to apply key business concepts and analytical tools to solve a wide range of unstructured, but very real problems.

Participation in the IBE option, which will typically occur during the first semester of the junior year, will require students to enroll in a four-course block that includes three required junior-level core business courses and an Integrated Business Experience Practicum course*. The link between learning and experience occurs because the content coverage and many of the assignments in the core courses will be specifically sequenced to support students in organizing and managing their business and service ventures. As a result, IBE students will develop a clear "big-picture" understanding of business operations because, on an ongoing basis, they will be using concepts and tools from all three core courses to guide their decisions in the business and service organizations.

IBE Program Elements

1. Students must simultaneously enroll in three required junior-level core business courses; Management, Marketing, and Information Systems (Marketing - MKT 3405, Management - MGT 3315, and Information Systems - CIS 3630) plus a three-hour Integrated Business Experience Practicum (MGT 3385, MKT 3485 or CIS 3685). Students will be responsible for mastering the concepts and terminology of each of the core courses.
2. Students will learn in classes in which the instruction is delivered using Team-Based Learning®. Thus, instead of listening to lectures, most of their in-class time is spent working in a 7-member learning

team that remains stable across the core courses for the entire semester.

3. Students will work as an "employee" of a 25-30-member company that becomes a "laboratory" in which they apply concepts from the core business disciplines as they engage in two ventures - a start-up business and a service project on behalf of a non-profit community organization.
4. Students will spend the first 7 weeks developing a business plan for a start-up company whose profits will finance a hands-on community service project. The plan will then be presented to a loan review committee (First Community Bank officers and local entrepreneurs) to obtain the capital (real money up to \$5,000) needed to implement their plan.
5. Students will implement their business plan (i.e., they have 6-7 weeks to do enough business to pay off their loan and expenses and generate enough profit to finance their service work).
6. Students will create a program portfolio that contains reflections on their experience and includes a set of "artifacts" that will enable them to communicate their learnings to potential employers.

References

Michaelsen, L. K. (1999). Integrating the Core Business Curriculum: An Experience-based Solution. *Selections*, 15 (2), 9-17.
 Miller, J. A. (1991) Experiencing Management: A Comprehensive, "Hands-on" Model for the Introductory Management Course. *Journal of Management Education*, 15 (2), 151-173.
 Shinn, Sharon (2003). Junior Executives. *BizEd* 2(4) May/June, 48-51.
 Turk, Randall (2002). Risky Business. *Sooner Magazine*, 22(2), 22-26.

*Enrollment in IBE is limited and will be on a first-come first-enrolled basis.

ECONOMICS, FINANCE AND MARKETING

The Department of Economics, Finance and Marketing
 Dockery 300G
 660-543-4246
 ucmo.edu/efm

ECONOMICS

ECONOMICS

Major, Bachelor of Science in Business Administration Degree
 (46-611)

The graduate with a Bachelor of Science in Business Administration degree in Economics will use the knowledge and skills obtained in the program to:

- Use appropriate concepts and methods of analysis to identify and examine economic conditions and policies.
- Communicate effectively with consumers and producers of economic information and analysis.
- Select, collect, and manipulate data and interpret results.
- Consider the economic issues in the context of individual values, social values, and historical and global circumstances.
- Demonstrate quantitative and statistical knowledge and skills.

Sem. Hours

MAJOR REQUIREMENTS 60

*ACCT 2101	Principles of Financial Accounting	3
*ACCT 2102	Principles of Managerial Acct.	3
*BLAW 2720	Legal Environment of Business	3
CIS 3630	Management Information Systems	3
*ECON1011	Principles of Microeconomics	3
ECON 3010	Intermediate Macroeconomics	3
ECON 3030	Intermediate Microeconomics	3
ECON 4000	Senior Seminar in Economics	3
*FIN 2801	Business Statistics I	3
FIN 3801	Business Statistics II	3
FIN 3850	Principles of Finance	3

MKT	3405	Marketing Policy	3
MGT	3315	Management of Organizations	3
MGT	3325	Business Communications	3
MGT	3360	Production/Operations Management	3
¹⁰ MGT	4357	Organizational Policy & Strategy	3
Electives from the following			12
#ECON	3020	Money & Banking	3
ECON	3035	Internship In Economics	1-3
#ECON	3065	Labor Economics	3
#ECON	4010	International Economics	3
ECON	4020	Natural Resource Economics	3
#ECON	4050	Comparative Economic Systems	3
#ECON	4054	Sports Economics	3
ECON	4060	Game Theory Applications	3
ECON	4065	Managerial Economics	3
ECON	4075	Time Series Analysis	3
#ECON	4080	Econometrics I	3

GENERAL EDUCATION REQUIREMENTS 43

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

*GE/CIS	1600	Business Information Management	3
GE/COMM	1000	Public Speaking, 3 or	
GE/COMM	1050	Fund. of Oral Comm Competency, 3	3
*GE/ECON	1010	Principles of Macroeconomics	3
*GE/MATH	1111	College Algebra	3

FREE ELECTIVES 17

MINIMUM TOTAL 120

¹⁰Competency 10 course

#These online courses are part of the Missouri Association for Collaboration in Economics (MACE). Money & Banking and Labor Economics are taught by Northwest Missouri State University. Comparative Economic Systems and International Economics are taught by Southeast Missouri State University. Econometrics I and Sports Economics are taught by UCM. Students from UCM, SEMO, and NWMSU participate in all MACE classes.

*Students expecting to receive the B.S.B.A. degree must meet all pre-admission requirements to be admitted to this program. See page 99 for the Statement of Policy on Admission to a B.S.B.A. degree program. Pre-admission courses include: ACCT 2101, ACCT 2102, BLAW 2720, GE/CIS 1600, GE/ECON 1010, ECON 1011, FIN 2801, and GE/MATH 1111.

ECONOMICS

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (538)

Sem. Hours

MINOR REQUIREMENTS 20

GE/ECON	1010	Principles of Macroeconomics	3
ECON	1011	Principles of Microeconomics	3
Electives in economics**			14

**Must include at least one upper-level (3000/4000) course to meet graduation requirements.

FINANCE

FINANCE

Major, Bachelor of Science in Business Administration Degree (46-267)

The graduate with a Bachelor of Science degree 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.
- Accurately use theoretical frameworks to analyze, solve, evaluate, and

implement financial decisions in a systematic manner.

- Recognize international issues when evaluating/implementing financial decisions.
- Effectively communicate analyses/decisions to a wide variety of audiences, in a variety of professional contexts.
- Recognize and apply maximization principle: Maximize value of the firm/shareholders' wealth.
- Examine risk and return impacts of the firm's investment and financing decisions.
- Make sound financial decisions, using fundamental financial economic models, in a systematic manner.
- Comprehend the role of financial intermediation and function of global financial markets.
- Appreciate legal and ethical considerations.

For admission to the finance major, a student must have a cumulative GPA of 2.4 or above (on a 4.0 scale) on all completed undergraduate college credit and a 2.4 GPA (or above) on the 24 semester hours of B.S.B.A. preadmission courses. To graduate with a B.S.B.A., major in finance, a student must have a cumulative GPA of 2.4 or higher.

Sem. Hours

MAJOR REQUIREMENTS 72

*ACCT	2101	Principles of Financial Accounting	3
*ACCT	2102	Principles of Managerial Acct.	3
*BLAW	2720	Legal Environment of Business	3
CIS	3630	Management Information Systems	3
*ECON	1011	Principles of Microeconomics	3
ECON	3020	Money & Banking	3
ECON	3030	Intermediate Microeconomics	3
*FIN	2801	Business Statistics I	3
FIN	3801	Business Statistics II	3
+FIN	3850	Principles of Finance	3
+FIN	3861	Financial Management I	3
+FIN	3881	Financial Institutions & Markets	3
+FIN	3891	Security Analysis	3
+FIN	3893	Credit & Financial Statement Analysis	3
MGT	3315	Management of Organizations	3
MGT	3325	Business Communications	3
MGT	3360	Production/Operations Management	3
¹⁰ MGT	4357	Organizational Policy & Strategy	3
MKT	3405	Marketing Policy	3
Electives from the following			15
FIN	3835	Internship in Finance	3
FIN	4803	Principles of Insurance	3
FIN	4804	Emp. Benefits & Ret. Plan	3
FIN	4815	Investment Portfolio Admin.	3
FIN	4817	Managing Financial Derivatives	3
FIN	4820	International Finance	3
FIN	4821	Professional Financial Analysis	3
FIN	4831	Student Managed Investment Fund	3
FIN	4862	Financial Management II	3
FIN	4880	Bank Management	3
Business Elective (3000-4000 level)			3

GENERAL EDUCATION REQUIREMENTS 43

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

*GE/CIS	1600	Business Information Management	3
GE/COMM	1000	Public Speaking, 3 or	
GE/COMM	1050	Fund. of Oral Comm Competency, 3	3
*GE/MATH	1111	College Algebra	3
*GE/ECON	1010	Principles of Macroeconomics	3

FREE ELECTIVES 5

MINIMUM TOTAL 120

¹⁰Competency 10 course

+FIN 3850, FIN 3861, FIN 3881, FIN 3891 and FIN 3893 must be completed with a grade of C or better to receive the B.S.B.A.-Finance degree.

*Students expecting to receive the B.S.B.A. degree must meet all pre-admission requirements to be admitted to this program. See page 99 for the Statement of Policy on Admission to a B.S.B.A. degree program. Pre-admission courses include: ACCT 2101, ACCT 2102, BLAW 2720, **GE**CIS 1600, **GE**ECON 1010, ECON 1011, FIN 2801, and **GE**MATH 1111.

FINANCE

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (541)

	Sem. Hours
MINOR REQUIREMENTS	24
ACCT 2101 Principles of Financial Accounting	3
FIN 2801 Business Statistics I	3
FIN 3801 Business Statistics II	3
FIN 3850 Principles of Finance	3
FIN 3861 Financial Management I	3
FIN 3881 Financial Institutions & Markets	3
FIN 3891 Security Analysis	3
Finance Elective from the following	3
FIN 4803 Principles of Insurance	3
FIN 4804 Empl. Benefits & Retirement Planning	3
FIN 4815 Investment Portfolio Admin.	3
FIN 4817 Managing Financial Derivatives	3
FIN 4820 International Finance	3
FIN 4821 Professional Financial Analysis	3
FIN 4862 Financial Management II.	3
FIN 4880 Bank Management	3

MARKETING

MARKETING

Major, Bachelor of Science in Business Administration Degree

(46-269)

The graduate with a B.S.B.A. degree with a major in Marketing will use the knowledge and skills obtained in the program to:

- Understand the marketing concepts in consumer behavior, personal selling, marketing research, marketing analysis, strategy development and global decision-making.
- Communicate effectively in both individual and team situations using both oral and written communication.
- Interact effectively with others to analyze situations and solve marketing problems.
- Understand the valuing process as it relates to making optimal decisions in the global business environment.
- Apply analysis and problem solving skills to assess marketing situations and develop strategies for implementation.

	Sem. Hours
MAJOR REQUIREMENTS	69
*ACCT 2101 Principles of Financial Accounting	3
*ACCT 2102 Principles of Managerial Acct.	3
*BLAW 2720 Legal Environment of Business	3
CIS 3630 Management Information Systems	3
*ECON1011 Principles of Microeconomics	3
*FIN 2801 Business Statistics I	3
FIN 3801 Business Statistics II	3
FIN 3850 Principles of Finance	3
MGT 3315 Management of Organizations	3
MGT 3325 Business Communications	3
MGT 3360 Production/Operations Mgt.	3
¹⁰ MGT 4357 Organizational Policy & Strategy	3
MKT 3405 Marketing Policy	3
MKT 3430 Professional Sales	3
MKT 3480 Consumer Behavior	3
MKT 4460 International Marketing	3
MKT 4470 Marketing Research	3
MKT 4490 Marketing Management	3

Marketing electives from the following	15
MKT 1400 Orientation to Marketing	1
MKT 3410 Retail Management	3
MKT 3420 Principles of Advertising	3
MKT 3435 Internship in Marketing	1-6
MKT 3450 Digital Marketing	3
MKT 3460 Advanced Professional Sales	3
MKT 4420 Sales Management	3
MKT 4430 Marketing Distribution	3
MKT 4440 Seminar in Marketing	3
MKT 4450 Integrated Marketing Comm.	3
MKT 4454 Sports Marketing	3
MKT 4480 Special Projects in Marketing	1-3

GENERAL EDUCATION REQUIREMENTS

GENERAL EDUCATION REQUIREMENTS	43
All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:	
* GE CIS 1600 Business Information Management.	3
GE COMM 1000 Public Speaking, 3 or	
GE COMM 1050 Fund. of Oral Comm Competency, 3.	3
* GE MATH 1111 College Algebra	3
* GE ECON 1010 Principles of Macroeconomics	3

FREE ELECTIVES

FREE ELECTIVES	8
MINIMUM TOTAL	120

¹⁰Competency 10 course

*Students expecting to receive the B.S.B.A. degree must meet all pre-admission requirements to be admitted to this program. See page 99 for the Statement of Policy on Admission to a B.S.B.A. degree program. Pre-admission courses include: ACCT 2101, ACCT 2102, BLAW 2720, **GE**CIS 1600, **GE**ECON 1010, ECON 1011, FIN 2801, and **GE**MATH 1111.

MARKETING

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor.

(512)

	Sem. Hours
MINOR REQUIREMENTS	18
MKT 3405 Marketing Policy	3
MKT 3430 Professional Sales	3
MKT 3480 Consumer Behavior	3
Marketing elective from the following	9
BLAW 2720 Legal Environment in Business.	3
GE ECON 1010 Principles of Macroeconomics	3
MKT 3410 Retail Management	3
MKT 3420 Principles of Advertising	3
MKT 3450 Digital Marketing.	3
MKT 3460 Advanced Professional Sales	3
MKT 4454 Sports Marketing	3

BUSINESS ADMINISTRATION

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor.

Not available to students pursuing a B.S.B.A. degree.

(545)

	Sem. Hours
MINOR REQUIREMENTS	18
ACCT 2101 Principles of Financial Accounting	3
GE ECON 1010 Principles of Macroeconomics	3
BLAW 2720 Legal Environment in Business	3
MGT 3315 Mgt. of Organizations	3
MKT 3405 Marketing Policy	3
GE CIS 1600 Business Information Management	3

MANAGEMENT

The Department of Management
 Dockery 400D
 660-543-4026
 ucmo.edu/management

ENTREPRENEURSHIP AND SOCIAL ENTERPRISE Major, Bachelor of Science in Business Administration Degree (46-331)

In the B.S.B.A. in Entrepreneurship and Social Enterprise major, our students will use knowledge and skills from the program to:

- Interact with others to create business solutions and innovations with a social conscience, develop technology that is environmentally sustainable and tackle social problems with profitable solutions.
- Design, launch and/or grow new businesses in a variety of sectors, return home to assist family businesses, or take on business development roles at growth-oriented companies.
- Apply analysis and problem solving skills to provide meaningful and sustainable service to the University, community, citizens of Missouri and the world.
- Develop skills and attitudes required for life-long learning and serving others.

	Sem. Hours
MAJOR REQUIREMENTS	63
*ACCT 2101 Principles of Financial Accounting	3
*ACCT 2102 Principles of Managerial Acct.	3
*BLAW 2720 Legal Environment of Business	3
**CIS 3630 Management Information Systems	3
*ECON 1011 Principles of Microeconomics	3
ESE 3710 Entrepreneurial Business Planning	3
ESE 3715 Entrepreneurial Business Planning Lab	1
ESE 3720 Social Enterprise for Entrepreneurs	3
ESE 3725 Social Enterprise Lab	1
ESE 4710 Commercialization	3
ESE 4715 Commercialization Lab	1
*FIN 2801 Business Statistics I	3
FIN 3801 Business Statistics II	3
FIN 3850 Principles of Finance	3
**MKT 3405 Marketing Policy	3
**MGT 3315 Management of Organizations	3
MGT 3325 Business Communications	3
MGT 3360 Production/Operations Mgt.	3
¹⁰ MGT 4357 Organizational Policy & Strategy	3
**MGT 3385 Integrative Bus. Exp. Pract, 3 or	
**MKT 3485 Integrative Bus. Exp. Pract, 3 or	
**CIS 3685 Integrative Bus. Exp. Pract, 3	3
Choose 9 hours from the following courses	9
BLAW 3721 Law of Business Transactions	3
ESE 1300 Intro. to Entrepreneurship & Business	3
ESE 4850 Entrepreneurial or Social Venture Start-up	3
HM 4820 Sustainability & Operations Mgt.	3
HM 4845 Senior Seminar	3
MGT 3320 Systems, Teams & Org. Behavior	3
MGT 4310 Quality & Innovation	3
MGT 4320 Leading & Managing Teams & Org.	3
MGT 4370 Supply Chain Management	3
MKT 3410 Retail Management	3
MKT 3430 Professional Sales	3
MKT 3480 Consumer Behavior	3
MKT 4470 Marketing Research	3
Other pre-approved courses	1-6
GENERAL EDUCATION REQUIREMENTS	43

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

*GE/CIS 1600 Business Information Management	3
GE/COMM 1000 Public Speaking, 3 or	

GE/COMM 1050 Fund. of Oral Comm Competency, 3	3
*GE/MATH 1111 College Algebra	3
*GE/ECON 1010 Principles of Macroeconomics	3
FREE ELECTIVES	14
MINIMUM TOTAL	120

¹⁰Competency 10 course

*Students expecting to receive the B.S.B.A. degree must meet all pre-admission requirements to be admitted to this program. See page 99 for the Statement of Policy on Admission to a B.S.B.A. degree program. Pre-admission courses include: ACCT 2101, ACCT 2102, BLAW 2720, GE/CIS 1600, GE/ECON 1010, ECON 1011, FIN 2801, and GE/MATH 1111.

**Students must enroll in IBE Practicum (MGT 3385 or MKT 3485 or CIS 3685) concurrently with the IBE sections of MGT 3315, MKT 3405 and CIS 3630.

ENTREPRENEURSHIP AND SOCIAL ENTERPRISE Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor.
 (332)

	Sem. Hours
MINOR REQUIREMENTS	19-24

Required courses	16
#ESE 3710 Entrep. Business Planning, 3 and	
#ESE 3715 Entrep. Business Planning Lab, 1	4
IBE Block: all 4 must be taken during the same semester	12
**MGT 3315 Management of Organizations	3
**MKT 3405 Marketing Policy	3
**+CIS 3630 Management Information Systems	3
**MGT 3385 Integ. Business Exp. Practicum, 3 or	
**MKT 3485 Integ. Business Exp. Practicum, 3 or	
**CIS 3685 Integ. Business Exp. Practicum, 3	3
Elective(s) from the following	3-8
(7-8 hours for BSBA majors, 3-4 hours for non-BSBA majors)	
#ESE 3720 Social Enterprise for Entrep., 3 and	
#ESE 3725 Social Enterprise Lab, 1	4
#ESE 4710 Commercialization, 3 and	
#ESE 4715 Commercialization Lab, 1	4
ESE 4850 Entrep. or Social Venture Start-up	3
**Students must enroll in IBE Practicum (MGT 3385 or MKT 3485 or CIS 3685) concurrently with the IBE sections of MGT 3315, MKT 3405 and CIS 3630.	
#ESE 3710, ESE 3720 and ESE 4710 each have a one hour required concurrent lab as listed.	
+This course has prerequisites not listed in the program; see specific class listing in the catalog for additional requirements.	

HOSPITALITY MANAGEMENT

Major, Bachelor of Science in Business Administration Degree

(46-613)

The graduate with a Bachelor of Science in Business Administration degree in Hospitality Management will understand the hospitality industry and its demands through:

- A customer service focus.
- Apply critical thinking, problem solving, communicating and investigating skills specific to hospitality management.
- Develop skills and attitudes required for life-long learning and serving others.
- Organize activities and analyze financial information to implement decisions.
- Further develop career and professional skills gained through work experience and internships.

	Sem. Hours
MAJOR REQUIREMENTS	74

*ACCT 2101 Principles of Financial Accounting	3
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*ACCT	2102	Principles of Managerial Acct.	3
*BLAW	2720	Legal Environment of Business	3
**CIS	3630	Management Information Systems	3
*ECON	1011	Principles of Microeconomics	3
*FIN	2801	Business Statistics I	3
FIN	3801	Business Statistics II	3
FIN	3850	Principles of Finance	3
HM	1800	Intro. to Hospitality	3
HM	2830	Hospitality Management Case Analysis (1 credit, take 2 times)	2
HM	3800	Lodging Management	3
HM	3825	Events Management	3
HM	3844	Restaurant Operations	3
***HM	3880	Internship	3
HM	4820	Sustainability & Operations Mgt.	3
HM	4830	Tourism Marketing	3
HM	4845	Senior Seminar	3
HRM	3920	Human Resource Management	3
**MKT	3405	Marketing Policy	3
**MGT	3315	Management of Organizations	3
MGT	3320	Systems, Teams & Org. Behavior	3
MGT	3325	Business Communications	3
MGT	3360	Production/Operations Mgt.	3
¹⁰ MGT	4357	Organizational Policy & Strategy	3
**MGT	3385	Integrative Bus. Exp. Pract, 3 or	
**MKT	3485	Integrative Bus. Exp. Pract, 3 or	
**CIS	3685	Integrative Bus. Exp. Pract, 3	3

GENERAL EDUCATION REQUIREMENTS 43

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

*GECIS	1600	Business Information Management.	3
GECOMM	1000	Public Speaking, 3 or	
GECOMM	1050	Fund. of Oral Comm Competency, 3.	3
*GEMATH	1111	College Algebra	3
*GEECON	1010	Principles of Macroeconomics	3

FREE ELECTIVES 3

MINIMUM TOTAL 120

- ¹⁰Competency 10 course
- *Students expecting to receive the B.S.B.A. degree must meet all pre-admission requirements to be admitted to this program. See page 99 for the Statement of Policy on Admission to a B.S.B.A. degree program. Pre-admission courses include: ACCT 2101, ACCT 2102, BLAW 2720, GECIS 1600, GEECON 1010, ECON 1011, FIN 2801, and GEMATH 1111.
- **Students must enroll in IBE Practicum (MGT 3385 or MKT 3485 or CIS 3685) concurrently with the IBE sections of MGT 3315, MKT 3405 and CIS 3630.
- ***The internship is a requirement of this degree program. Students in the BSBA in Hospitality Management major must have an overall cumulative GPA (4.00 scale) of 2.5 (or above) before they can attempt the internship requirement. Students must also complete the following BEFORE they can enroll and participate in the 3 credit Hospitality Management Internship (HM 3880).

- 400 hours minimum hospitality/retail/or other related experience that entails significant customer interaction/service component in job.
 - Of the 400 hours listed above, at least 250 hours must be with one employer; all 400 may be from one employer. The purpose of this is to ensure that the student can develop a relationship with a single employer for at least 6 weeks at full-time status.
- 21 UCM credit hours completed (minimum).
- 60 credit hours of university credit (minimum) – a requirement of UCM HCBPS Internship Office.
- 2.5 overall GPA (minimum) – a requirement of UCM HCBPS Internship Office .
- Complete pre-internship paperwork and processes with HCBPS Internship Office and HM faculty.

HOTEL AND RESTAURANT ADMINISTRATION

Major, Bachelor of Science Degree (43-275)

The graduate with a Bachelor of Science degree in Hotel and Restaurant Administration will understand the hospitality industry and its demands through:

- A customer service focus.
- Leading in diverse environments.
- Using critical thinking, problem solving, communicating and investigating skills specific to hospitality management.
- Analyzing and making decisions based on financial information.
- Career and professional development gained through work experience and internships.

Sem. Hours

MAJOR REQUIREMENTS 56

HM	1800	Intro. to Hospitality	3
HM	2830	Hospitality Management Case Analysis (1 credit, take 3 times)	3
HM	3800	Lodging Management	3
HM	3810	Intnrshp Hotel & Restaurant Management	3
HM	3825	Events Management	3
HM	3844	Restaurant Operations.	3
HM	3845	Hospitality Operations Analysis	3
HM	4810	Internship	5
HM	4820	Sustainability & Operations Mgt.	3
HM	4830	Tourism Marketing	3
¹⁰ HM	4845	Senior Seminar	3
FOOD	2322	Food Preparation	3
FOOD	3332	Quantity Food Prod. & Service	3
ACCT	2101	Principles of Financial Accounting	3
BLAW	2720	Legal Environment of Business.	3
HRM	3920	Human Resource Management	3
MGT	3320	Systems, Teams & Org. Behavior	3
MGT	3325	Business Communications	3

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GECHEM	1104	Intro. to the Sciences: Chemistry	4
GEECON	1010	Principles of Macroeconomics	3
GECOMM	1000	Public Speaking, 3 or	
GECOMM	1050	Fund. of Oral Comm Competency, 3.	3
GEEOG	2212	World Geography	3

FREE ELECTIVES 22

MINIMUM TOTAL 120

- ¹⁰Competency 10 course

MANAGEMENT

Major, Bachelor of Science in Business Administration Degree (46-268)

In the B.S.B.A. in Management major, our students will be give the opportunity to:

- Become more effective decision makers.
- Organize activities to implement decisions.
- Deliver effective oral presentations and written communications.
- Lead others effectively.
- Develop skills and attitudes required for life-long learning and serving others.

Sem. Hours

MAJOR REQUIREMENTS69-70

*ACCT	2101	Principles of Financial Accounting	3
*ACCT	2102	Principles of Managerial Acct.	3
*BLAW	2720	Legal Environment of Business	3
**CIS	3630	Management Information Systems	3
*ECON	1011	Principles of Microeconomics	3
*FIN	2801	Business Statistics I	3
FIN	3801	Business Statistics II	3

FIN	3850	Principles of Finance	3
HRM	3920	Human Resource Management	3
**MGT	3315	Management of Organizations	3
MGT	3320	Systems, Teams & Org. Behavior	3
MGT	3325	Business Communications	3
MGT	3360	Production/Operations Mgt.	3
MGT	4310	Quality & Innovation.	3
MGT	4320	Leading & Managing Teams & Org.	3
MGT	4325	Management Communication	3
¹⁰ MGT	4357	Organizational Policy and Strategy	3
**MKT	3405	Marketing Policy	3
**MGT	3385	Integrative Bus. Experience Pract., 3 or	
**MKT	3485	Integrative Bus. Experience Pract., 3 or	
**CIS	3685	Integrative Bus. Experience Pract., 3	3

Management global perspective: 6-7

#MGT	3345	International Management	1 or 3
#Must take MGT 3345 for at least 1 hour.			
May take MGT 3345 for 3 hours.			
May take MGT 3345 only once.			
HM	4820	Sustainability & Operations Mgt.	3
MGT	4370	Supply Chain Management	3

Exhibiting leadership: 6

Choose from:

MGT	1320	Introduction to Leading & Managing	3
MGT	2350	Special Projects in Management	1-3
MGT	3335	Internship in Management	1-6
MGT	3350	Special Projects in Management	1-3
ESE	3720	Social Enterprise for Entrepreneurs, 3 and	
ESE	3725	Social Enterprise Lab, 1,	4
ISP	4000	Study Abroad	3
International Study Tour (seek Management Chair approval). 3			

NOTE: Managerial work experience may waive 3 credits of this requirement. However, students must earn 120 hours to graduate from UCM. See Management Chair for further information.

GENERAL EDUCATION REQUIREMENTS 43

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

¹⁰ GE/CIS	1600	Business Information Management	3
GE/COMM	1000	Public Speaking, 3 or	
GE/COMM	1050	Fund. of Oral Comm Competency, 3.	3
¹⁰ GE/ECON	1010	Principles of Macroeconomics	3
¹⁰ GE/MATH	1111	College Algebra	3

FREE ELECTIVES 7-8

MINIMUM TOTAL 120

¹⁰Competency 10 course

*Students expecting to receive the B.S.B.A. degree must meet all pre-admission requirements to be admitted to this program. See page 99 for the Statement of Policy on Admission to a B.S.B.A. degree program. Pre-admission courses include: ACCT 2101, ACCT 2102, BLAW 2720, GE/CIS 1600, GE/ECON 1010, ECON 1011, FIN 2801, and GE/MATH 1111.

**Students must enroll in IBE Practicum (MGT 3385 or MKT 3485 or CIS 3685) concurrently with the IBE sections of MGT 3315, MKT 3405 and CIS 3630.

MANAGEMENT

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (510)

MINOR REQUIREMENTS 18

MGT	3315	Management of Organizations	3
MGT	3320	Systems, Teams & Org. Behavior	3
MGT	3325	Business Communications	3
HRM	3920	Human Resource Management	3
Electives from the following 6			

MGT	3335	Internship in Management	3-6
MGT	3360	Production/Operations Mgt.	3
MGT	4310	Quality & Innovation	3
MGT	4320	Leading & Managing Teams & Org.	3
MGT	4325	Management Communication	3
MGT	4370	Supply Chain Management	3

SCHOOL OF ACCOUNTANCY AND COMPUTER INFORMATION SYSTEMS

The School of Accountancy and Computer Information Systems

Dockery 400
660-543-4631
ucmo.edu/acct

LEGAL STUDIES

Minor for a Bachelor's Degree (555)

Sem. Hours

MINOR REQUIREMENTS 21

*CJ	2300	Criminal Law & Procedure	3
BLAW	2720	Legal Environment of Business	3
POLS	2580	Public Law & Judicial Process	3
Electives from the following 12			

No more than 6 hours from any one discipline and at least 6 hours must be upper-level (3000/4000).

*ACCT	3130	Introduction To Income Tax	3
*ACCT	4130	Advanced Income Tax	3
AE	1240	LSAT Test Preparation	1
AVIA	4090	Aviation Law	3
BLAW	2750	Legal & Ethical Decision Making in the Workplace	3
*BLAW	3721	Law of Business Transactions	3
*BLAW	4740	Employment Law	3
COMM	2340	Argumentation & Debate	3
*COMM	4250	The Law & Digital Media	3
*CJ	3310	Law of Corr. & Prisoners Rights	3
CJ	3398	International Human Rights & CJ	3
CJ	4300	Critique Crim. Law & Crim. Proc.	3
CJ	4302	Evidence & Courtroom Procedure	3
*CJ	4321	Civil Remedies in CJ	3
*CJ	4330	CJ & the Mental Health Systems	3
CJ	4352	International Criminal Law	3
CJ	4390	The Death Penalty	3
CJ	4701	Juvenile Law & Policy	3
*EDSP	4700	IEP & the Law	3
FIN	4804	Emp. Benefits & Ret. Plan.	3
HM	4840	Legal Aspects of Hotel & Res. Mgt.	3
INDM	4015	Legal Aspects of Industry	3
PE	4740	Legal Liability in Fitness/Wellness, Physical Education, Recreation, & Sports Settings	3
PHIL	1400	Deductive Logic	3
GE/PHIL	1410	Critical Thinking	3
GE/PHIL	2300	Ethics	3
GE/POLS	2581	Trial Advocacy	3
POLS	4530	International Law	3
POLS	4580	American Constitutional Law	3
POLS	4581	Civil Rights & Liberties	3
POLS	4583	First Amendment	3
*REL	4520	Legal Issues & Religions	3
*SAFE	4020	Legal Aspects of Safety & Health	3
*SAFE	4425	Safety & Health Legislation & Standards	3
*SAFE	4430	Workers Comp Legislation	3

* This course has a prerequisite not listed in the program; see specific class listing in the catalog for additional requirements.

ACCOUNTANCY

School of Accountancy Statement of Policy

All students must refer to page 100 for the Statement of Policy on Admission to a B.S.B.A. degree program.

The School of Accountancy offers the following degree options:

- B.S.B.A.- Accountancy
- M.A.- Accountancy (for details about this degree see the graduate catalog)
- A combined 150-hour B.S.B.A./M.A. in Accountancy
- A concentration in Accountancy in the HCBPS's M.B.A. degree (for details about this degree see the graduate catalog).

A minor in accountancy is also offered.

For admission to the accountancy major, a student must have a cumulative GPA of 2.65 (4.00 scale) or higher on all completed undergraduate college credit and a 2.65 GPA (or above) on the 24 semester hours of B.S.B.A. preadmission courses. To graduate with a BSBA, major in Accountancy, a student must have a cumulative GPA of 2.65 or higher. Any exceptions to this policy must be approved by the School of Accountancy Chair.

A minimum grade of C must be earned in the following courses if they are to be applied toward the fulfillment of an accountancy major or minor: ACCT 2101, ACCT 2102, ACCT 3110, ACCT 3111, ACCT 3112, ACCT 3120, ACCT 3130, and ACCT 3160.

A student with an accountancy major or minor may enroll in a course offered by the School of Accountancy only if a grade of at least C is earned in each of the course's accounting prerequisites.

For admission to the 150-hour Bachelor of Science in Business Administration/Master of Arts Degree, a student must have a cumulative GPA of 3.00 (4.00 scale) or higher for the first 60 hours of undergraduate college credit, a GPA of 3.00 (or above) for the 24 semester hours of B.S.B.A. preadmission courses, and a grade of B or higher in ACCT 2101, ACCT 2102, and ACCT 3110. A student must earn a minimum grade of C in all other accounting and business courses. A student must have an overall 3.00 GPA in all graduate courses to be awarded the MA in Accountancy. A student must apply for admission to the 150-hour Bachelor of Science in Business Administration/Master of Arts program when enrolled in the first 3000-level accounting course.

ACCOUNTANCY

Major, Bachelor of Science in Business Administration Degree (46-259)

The design of the undergraduate degree for accounting students is to provide students with sufficient technical and professional accounting knowledge as well as the skills that form the foundation for a career in accounting and to engage in a life-long learning process. The School of Accountancy has identified three professional knowledge and skill areas, which are 1) professional accounting knowledge; 2) professional accounting skills; and 3) professional orientation. Within each of these three key areas, key program outcomes are identified.

Professional Accounting Knowledge - each student can demonstrate the ability to apply professional accounting knowledge in the following areas:

- Measurement, recording, analysis, validation, interpretation, and communication of financial, managerial and other business information.
- Ethical and regulatory environments in which accountants work.
- Business processes and internal control.
- Risk assessment and assurance for financial and non-financial reporting.
- Tax policy and compliance for individuals.
- Tax policy and compliance for taxable and non-taxable entities.

Professional Accounting Skills - each student can demonstrate basic professional skills in the following areas:

- Written communication.

- Use of information technology to support business processes and decision-making.
 - Problem solving / critical thinking skills.
 - Researching appropriate resources to resolve accounting related issues.
- Professional Orientation** - students can demonstrate an awareness of the following professional areas associated with success in the accounting profession:
- Complexities of the global business environment.
 - Expectations of professional and ethical conduct and the need for continuing education.
 - Roles and responsibilities of accountants to insure the integrity of financial and other business information.

Sem. Hours

MAJOR REQUIREMENTS 75

*ACCT 2101	Principles of Financial Accounting	3
*ACCT 2102	Principles of Managerial Acct.	3
ACCT 3110	Inter. Financial Accounting I	3
ACCT 3111	Inter. Financial Accounting II	3
ACCT 3112	Inter. Financial Accounting III	3
ACCT 3120	Cost & Managerial Accounting	3
ACCT 3130	Introduction to Income Tax	3
ACCT 3160	Acct. Information Systems	3
ACCT 4100	Advanced Accounting I	3
ACCT 4105	Auditing	3
ACCT 4130	Advanced Income Tax	3
*BLAW 2720	Legal Environment of Business	3
BLAW 3721	Law of Business Transactions	3
CIS 3650	Database Management Systems	3
*ECON1011	Principles of Microeconomics	3
*FIN 2801	Business Statistics I	3
FIN 3801	Business Statistics II	3
FIN 3850	Principles of Finance	3
MGT 3315	Management of Organizations	3
MGT 3325	Business Communications	3
MGT 3360	Production/Operations Mgt.	3
¹⁰ MGT 4357	Organizational Policy & Strategy	3
MKT 3405	Marketing Policy	3
	3000- or 4000-level Non-Accounting Business Electives	6

GENERAL EDUCATION REQUIREMENTS 43

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

*GECIS 1600	Business Information Management.	3
GECOMM 1000	Public Speaking, 3 or	
GECOMM 1050	Fund. of Oral Comm Competency, 3.	3
*GEECON 1010	Principles of Macroeconomics	3
*GEMATH 1111	College Algebra	3

NON-ACCOUNTING ELECTIVES 5

This program requires at least 90 hours of courses without the ACCT prefix. All business and free electives must be non-ACCT courses.

MINIMUM UNDERGRADUATE TOTAL 123

¹⁰Competency 10 course

* Students expecting to receive the B.S.B.A. degree must meet all pre-admission requirements to be admitted to this program. See page 99 for the Statement of Policy on Admission to a B.S.B.A. degree program. Pre-admission courses include: ACCT 2101, ACCT 2102, BLAW 2720, GECIS 1600, GEECON 1010, ECON 1011, FIN 2801, and GEMATH 1111.

ACCOUNTANCY

Major, BSBA/MA Degree (46-621)

NOTE: At the completion of the 150-hour program, and not before, the student will earn both a BSBA and an MA degree in Accountancy.

The 150-Hour BSBA/MA program for accounting students combines the Bachelor of Science in Business Administration degree (accounting major) with the Master of Arts in Accountancy, providing the student with

a seamless path to complete the 150 hours required to sit for the Certified Public Accountant exam. The 150-hour program reduces the hours needed to complete each degree separately by 6.

In addition to the technical and professional accounting knowledge and skills provided as part of the BSBA, the School of Accountancy has identified the following graduate Student Learning Outcomes.

Professional Accounting Knowledge - Each student can demonstrate the ability to apply professional accounting knowledge in the following areas:

- Audit procedures and programs.
- Tax policy and compliance for taxable and non-taxable entities.
- The evolution of accounting theory.

Professional Accounting Skills - Each student can demonstrate application of professional skills as follows:

- Research complex accounting-related issues and utilize findings in decision making.
- Gather and analyze data for problem solving and decision making.
- Communicate effectively (orally and in writing) in an accounting context.

Professional Orientation - Students can demonstrate an application within the following areas associated with success in the accounting profession.

- Complexities of the global business environment.
- Expectations of professional and ethical conduct and the need for continuing education.
- Roles and responsibilities of accountants to insure the integrity of financial and other business information.

The M.A. in Accountancy program is designed to provide advanced level of study in accounting. The program provides graduate exposure to the traditional areas of accounting (financial accounting, income tax, and auditing) through the accounting core. The specialization allows sufficient flexibility in course work to permit advanced study in specific areas such as tax, financial planning, auditing or accounting systems. Completion of the program qualifies the graduate to sit for the CPA examination in Missouri.

UCM students enrolled in their first 3000 level accounting course may consult with the School of Accountancy Graduate Advisor and complete a departmental application to declare the 150-hour BSBA/MA major in accountancy. A cumulative GPA of 3.00 (4.00 scale) or higher for the first 60 hours of undergraduate college credit and a GPA of 3.00 (or above) on the 24 semester hours of BSBA preadmission courses, and a grade of B or higher in ACCT 2101, ACCT 2102, and ACCT 3110 is required for admittance. Prior to beginning the graduate portion of the program, students in the 150-hour program will need to apply to the UCM Graduate School for formal admittance to the Accelerated BSBA/MA program.

Sem. Hours

UNDERGRADUATE REQUIREMENTS 120

MAJOR REQUIREMENTS 72-75

*ACCT 2101	Principles of Financial Accounting	3
*ACCT 2102	Principles of Managerial Acct.	3
ACCT 3110	Inter. Financial Accounting I	3
ACCT 3111	Inter. Financial Accounting II	3
ACCT 3112	Inter. Financial Accounting III	3
ACCT 3120	Cost & Managerial Accounting	3
ACCT 3130	Introduction to Income Tax	3
ACCT 3160	Acct. Information Systems	3
ACCT 4100	Advanced Accounting I	3
ACCT 4105	Auditing	3
ACCT 4130	Advanced Income Tax	3
CIS 3650	Database Management Systems	3
*ECON1011	Principles of Microeconomics	3
*FIN 2801	Business Statistics I	3
FIN 3801	Business Statistics II	3
FIN 3850	Principles of Finance	3
MGT 3315	Management of Organizations	3
MGT 3325	Business Communications	3
MGT 3360	Production/Operations Mgt.	3
¹⁰ MGT 4357	Organizational Policy & Strategy	3
MKT 3405	Marketing Policy	3
*BLAW 2720	Legal Environment of Business	3
BLAW 3721	Law of Business Transactions	3
3000- or 4000-level Non-Accounting Business Electives		3-6

GENERAL EDUCATION REQUIREMENTS 43

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

*GECIS 1600	Business Information Management	3
GECOMM 1000	Public Speaking, 3 or	
GECOMM 1050	Fund. of Oral Comm Competency, 3	3
*GEECON 1010	Principles of Macroeconomics	3
*GEMATH 1111	College Algebra	3

NON-ACCOUNTING ELECTIVES 2-5

This program requires at least 90 hours of courses without the ACCT prefix. All business and free electives must be non-ACCT courses.

GRADUATE REQUIREMENTS 30

GR ACCOUNTING CORE	9	
ACCT 5120	Seminar in Accounting Theory	3
ACCT 5130	Seminar in Tax Research and Planning	3
ACCT 5150	Advanced Auditing	3
SPECIALIZATION	21	

To be selected with approval of the accounting adviser. (Twelve of the 21 hours must be at the 5000 or 6000 level. At least 9 hours must be in Accounting, of which 6 hours must be at the 5000 or 6000 level. At least 9 hours must be outside of accounting.

MINIMUM TOTAL 150

¹⁰Competency 10 course

*Students expecting to receive the B.S.B.A. degree must meet all pre-admission requirements to be admitted to this program. See page 99 for the Statement of Policy on Admission to a B.S.B.A. degree program. Pre-admission courses include: ACCT 2101, ACCT 2102, BLAW 2720, GECIS 1600, GEECON 1010, ECON 1011, FIN 2801, and GEMATH 1111.

ACCOUNTANCY

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (326)

Sem. Hours

MINOR REQUIREMENTS 21

ACCT 2101	Principles of Financial Accounting	3
ACCT 2102	Principles of Managerial Acct.	3
ACCT 3110	Inter. Financial Accounting I	3
ACCT 3111	Inter. Financial Accounting II	3
ACCT 3112	Inter. Financial Accounting III	3
ACCT 3130	Introduction to Income Tax	3
ACCT 4100	Advanced Accounting	3

COMPUTER INFORMATION SYSTEMS

COMPUTER INFORMATION SYSTEMS

Major, Bachelor of Science in Business Administration Degree (46-266)

The graduate with a Bachelor of Science degree in Business Administration with a major in Computer Information Systems will use the knowledge and skills obtained in the program to:

- Analyze technology-related, business problems and design solutions by applying appropriate analysis processes, methodologies and tools.
- Design, develop, and maintain application software, to be deployed on various devices, using suitable software engineering and design methodologies, programming languages, and web-development tools commonly adopted by businesses and other organizations.
- Design, implement and manage enterprise information technology systems and networks supporting mobile computing platforms, web-sites, and servers.
- Design, develop, and maintain databases using current database management systems.

- Design user interaction to facilitate the user's task and experience.
- Analyze risks and implement security measures for organizational computing environments.
- Apply project management skills and use project management software when creating a business solution; work collaboratively with others showing leadership, as appropriate.
- Use productivity software effectively.
- Communicate effectively in oral and written form; participate fully in group discussion and activities.
- Demonstrate knowledge of professional and ethical expectations in the work place.

Sem. Hours

MAJOR REQUIREMENTS 77

CIS 2605	Programming with Visual C#	3
CIS 2615	Introduction to JAVA	3
CIS 2665	Prin. of Data Comm. & LAN	3
**CIS 3630	Management Information Systems	3
CIS 3650	Database Management Systems	3
CIS 3660	Anlys. & Des. of Comp. Infor. Sys.	3
CIS 4690	Systems Architecture & Development	3
*ACCT 2101	Principles of Financial Accounting	3
*ACCT 2102	Principles of Managerial Acct.	3
*BLAW 2720	Legal Environment of Business.	3
*ECON 1011	Principles of Microeconomics	3
*FIN 2801	Business Statistics I	3
FIN 3801	Business Statistics II	3
FIN 3850	Principles of Finance	3
**MGT 3315	Management of Organizations	3
MGT 3325	Business Communications	3
MGT 3360	Production/Operations Mgt.	3
¹⁰ MGT 4357	Organizational Policy & Strategy	3
**MKT 3405	Marketing Policy	3
**CIS 3685	Integrative Bus. Exp. Pract., 3 or	
**MKT 3485	Integrative Bus. Exp. Pract., 3 or	
**MGT 3385	Integrative Bus. Exp. Pract., 3,	3

Three courses from one of the two following areas 9

Software Development

CIS 3670	User Experience Design	3
CIS 4680	Data Resource Mgt.	3
CIS 4660	Appl. Dev. Using JAVA, 3 or	
CIS 4670	Appl. Dev. Using Visual C#, 3	3

Networking

CIS 3665	Data Comm. Technologies	3
CIS 4665	Data Comm. & Dist. Data Proc.	3
CIS 4685	Network Planning, Design & Security	3

Electives 8

CIS 3695	Intern. in Comp. Infor. Sys.	3
CIS 4610	Special Projects	1-3
CIS 4635	Seminar in Bus. Comp. Appl.	3
CIS 4640	Web Application Development	3
CIS 4645	Network and System Security	3
CIS 4655	Software Engineering	3

Any CIS course in the tracks (prerequisites apply).
Any ET courses approved by the department.

GENERAL EDUCATION REQUIREMENTS 43

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

*GECIS 1600	Business Information Management.	3
GECIS 1612	Ethics in Information Technology	3
GECOMM 1000	Public Speaking, 3 or	
GECOMM 1050	Fund. of Oral Comm Competency, 3.	3
*GEECON 1010	Principles of Macroeconomics	3
*GEMATH 1111	College Algebra	3

MINIMUM TOTAL 120

¹⁰Competency 10 course

*Students expecting to receive the B.S.B.A. degree must meet all pre-admission requirements to be admitted to this program. See

page 99 for the Statement of Policy on Admission to a B.S.B.A. degree program. Pre-admission courses include: ACCT 2101, ACCT 2102, BLAW 2720, GECIS 1600, GEECON 1010, ECON 1011, FIN 2801, and GEMATH 1111.

**Students must enroll in IBE Practicum (MGT 3385 or MKT 3485 or CIS 3685) concurrently with the IBE sections of MGT 3315, MKT 3405 and CIS 3630.

COMPUTER INFORMATION SYSTEMS

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (535)

Sem. Hours

MINOR REQUIREMENTS 21

GECIS 1600	Business Information Management.	3
CIS 2605	Programming with Visual C#	3
CIS 2615	Introduction to JAVA	3
CIS 2665	Principles of Data Communication & Local Area Networking	3
CIS 3650	Database Mgt. Systems, 3 or	
CIS 3660	Analysis & Design of Computer Information Systems, 3	3
ACCT 2101	Principles of Financial Accounting	3
ACCT 2102	Principles of Managerial Acct.	3

SCHOOL OF PROFESSIONAL STUDIES

The School of Professional Studies is comprised of:

- The Department of Aviation
- The Department of Communication Disorders and Social Work
- The Department of Criminal Justice
- The Department of Military Science and Leadership
- The Missouri Safety Center

AVIATION

The Department of Aviation
TR Gaines 210
660-543-4969
ucmo.edu/aviation

Department of Aviation Statement of Policy

Department of Aviation requires a 2.25 GPA for all AVIA prefixed courses. Students pursuing flight training in their program must hold a 1st, 2nd or 3rd Class FAA Medical Certificate prior to starting flight lessons.

NOTE: Pending MDHE approval.

AERONAUTICS

Certificate

(10-861)

Required Courses	12-13
AVIA 1020 Aeronautics	2
AVIA 4060 Aerospace Education	2
AVIA 4070 Aviation History.	3
AVIA 4330 Sport Aviation	2
General Education ¹ or Graduate Level Preparation ²	3-4
² AVIA 4090 Aviation Law	3
² AVIA 4500 Aviation Safety	3
¹ GEECON1010 Principles of Macroeconomics	3
¹ GENGL 1020 Composition I	3

GE MATH 1111 College Algebra3
 GE PHYS 1104 Intro. to the Sciences: Physics4

Note: AVIA 4090 and AVIA 4500 are intended for students who wish to enter our graduate degree program.

AVIATION MAINTENANCE MANAGEMENT 2+2

Major, Bachelor of Science Degree
 (43-562)

This "2+2" program is designed to build upon an Associate Degree. The graduate with a Bachelor of Science degree in Aviation Maintenance Management 2+2 major transfer program will use the knowledge and skills obtained in the program to:

- Demonstrate an accurate understanding of the principles of Aviation Maintenance Management.
- Apply the skills necessary to implement required management principles for an Aviation Maintenance Manager.
- Demonstrate proficient skills required of conceptualizing and undertaking of projects related to Aviation Maintenance Management.
- Demonstrate effective skills required to balance technical, operational, and commercial factors related to Aviation Maintenance Management.
- Demonstrate the skills, knowledge, and personal traits required for employment and advancement in the Aviation Maintenance Management field.
- Demonstrate that they have the skills and knowledge required to function as an aviation maintenance technician.
- Communicate effectively both written and orally.
- Apply general education skills required to become a productive member of the profession, society and country.

Sem. Hours

MAJOR REQUIREMENTS78-79

Associate Degree Technical Courses.42

A technology related Associate in Aviation Maintenance from an accredited community college or technical institute in this field of study will be accepted. Forty-two hours of the degree transferred should apply towards the major and the remainder towards General Education. The General Education requirements transferred must be equivalent to UCM's requirements. In addition, the Federal Aviation Administration's A&P certificate is required for entry into the program.

Requirements23

AVIA 3710 Professional Ethics in Aviation2
 AVIA 4090 Aviation Law3
 AVIA 4500 Aviation Safety3
¹⁰AVIA 4999 Integrative Studies Capstone3
 MGT 3325 Business Communications3
 AVIA 4042 Aviation Maintenance Mgt., 3 or
 AVIA 4040 Aviation Management, 33
 AVIA 4420 Air Transportation, 3 or
 AVIA 4430 Corporate Aviation Management, 33
 MGT 3315 Management of Organizations, 3 or
 INDM 4210 Industrial Management, 33
 Choose one area. 12-13

Area 1 Management Focus - 12 hours

AVIA 4010 Aerodynamics3
 ACCT 2101 Principles of Financial Accounting3
 BLAW 2720 Legal Environment of Business.3
 *HRM 3920 Human Resource Management, 3 or
 INDM 4260 Organizational Dynamics, 33
 *Need to contact the department for permission.

Area 2 Maintenance Focus - 12 hours

AVIA 1215 General A&P Applications.3
 AVIA 1218 FAA Maintenance Regulations3
 AVIA 1216 Airframe Applications, 3 or
 AVIA 1217 Powerplant Applications, 33
 Elective – Any AVIA course.3

NOTE: Area 2 does not fulfill the university's minimum number of required upper-level (3000/4000) hours.

Area 3 Flight Focus - 13 hours

AVIA 1310 FAA Private Requirements.3

AVIA 3325 FAA Instrument Requirements3
 AVIA 4350 Aviation Weather3
 FLYA 1320 Private Flight A1
 FLYA 1321 Private Flight B1
 FLYA 3313 Instrument Flight A1
 FLYA 3314 Instrument Flight B1

NOTE: Students who enter the program with their Private Pilot Certificate will be awarded 5 credit hours (for AVIA1310/FLYA1320/FLYA1321) after they have completed their Instrument rating. See department for credit.

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GECON 1010 Principles of Macroeconomics3
 GEENGL 1030 Composition II3
 GE MATH 1131 Applied Calculus3
 GE PHYS 1104 Intro. to the Sciences: Physics4
MINIMUM TOTAL120-121
¹⁰Competency 10 course

AVIATION MANAGEMENT

Major, Bachelor of Science Degree
 (43-570)

The graduate with a Bachelor of Science degree with a major in Aviation Management will:

- Have knowledge of the overall structure of management operations, including regulations, domestic and international interactions and operations.
- Have knowledge of the various components involved in management including organizational behavior, change, leadership, finance, revenue management, cost structure, marketing, training, standardization, safety management, security, project management, environment compliance and human resources
- Have knowledge of safety management systems, risk management, crisis and emergency management.
- Have knowledge of aviation law, litigation, and liability issues.
- Prepare strategic and tactical plans consistent with best practices within the aviation industry.
- Complete an applicable capstone course or internship.

Sem. Hours

MAJOR REQUIREMENTS 75

Aviation Department Core 28

AVIA 1020 Aeronautics2
 AVIA 4010 Aerodynamics3
 AVIA 4040 Aviation Management3
 AVIA 4090 Aviation Law3
 AVIA 4310 Air Traffic Control.2
 AVIA 4420 Air Transportation3
 AVIA 4500 Aviation Safety3
¹⁰AVIA 4999 Integrative Studies Capstone3
 MGT 3325 Business Communications3
 MGT 3315 Management of Organizations, 3 or
 INDM 4210 Industrial Management, 33

Major Specialization (Aviation Management). 26

AVIA 3710 Professional Ethics in Aviation2
 AVIA 4430 Corporate Aviation Management3
 ACCT 2101 Principles of Financial Accounting3
 BLAW 2720 Legal Environment of Business.3
 COMM26203
 Introduction to Public Relations3
 FIN 2801 Business Statistics I3
 FIN 3850 Principles of Finance.3
 HRM 3920 Human Resource Management.3
 MKT 3405 Marketing Policy3

Select one of the two areas. 21

Option 1 Flight Operations Management - 21 hours

AVIA 1310	FAA Private Requirements	3
AVIA 3325	FAA Instrument Requirements	3
AVIA 4350	Aviation Weather	3
AVIA 4380	Flight Operations Management	3
FLYA 1320	Private Flight A	1
FLYA 1321	Private Flight B	1
FLYA 3313	Instrument Flight A	1
FLYA 3314	Instrument Flight B	1
Electives		5

NOTE: Students who enter the program with their Private Pilot Certificate will be awarded 5 credit hours (for AVIA1310/FLYA1320/FLYA1321) after they have completed their Instrument rating. See department for credit.

Option 2 Airport Management - 21 hours

AVIA 3022	Aviation Internship	3
AVIA 4045	Airport Management	3
ATM 3010	Transportation Systems	3
CADD 1105	Basic AutoCAD	1
CADD 1110	Fundamentals of Drafting	3
CADD 1170	Introduction to Computer Aided Drafting	2
AVIA 3620	Prin. of Aviation Accident Causation, 3 or	
SAFE 3000	Prin. of Accident Causation & Prevention	3
Electives		3

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GECON 1010	Principles of Macroeconomics	3
GENGL 1030	Composition II	3
GMATH 1131	Applied Calculus	3
GEPHYS 1104	Intro to the Sciences: Physics	4

FREE ELECTIVES 3

MINIMUM TOTAL 120

¹⁰Competency 10 course

NOTE: Pending MDHE approval.

GENERAL AVIATION MAINTENANCE TRANSITION Certificate (10-878)

Required Courses		12
AVIA 1215	General A&P Applications	3
AVIA 1218	FAA Maintenance Regulations	3
AVIA 1216	Airframe Applications, 3 or	
AVIA 1217	Powerplant Applications, 3	3
Any AVIA elective		3

PROFESSIONAL PILOT

Major, Bachelor of Science Degree (43-554)

The graduate with a Bachelor of Science degree in Professional Pilot will use the knowledge and skills obtained in the program to:

- Demonstrate an ability to apply knowledge of mathematics, science, and applied sciences as a professional pilot.
- Analyze and interpret data relating to aviation.
- Function on multi-disciplinary teams as a professional pilot.
- Exhibit an understanding of ethical and professional responsibility of aviation professionals.
- Communicate effectively, including both written and verbal forms.
- Recognize the need for, and an ability to engage in, life-long learning.
- Exhibit knowledge of contemporary issues relating to professionals in the aviation field.
- Demonstrate an ability to use the techniques, skills, and modern technology necessary for professional aviators.
- Analyze the national and international aviation environment.
- Apply pertinent knowledge in identifying and solving problems confronting professional pilots.

Sem. Hours

MAJOR REQUIREMENTS 75

Aviation Department Core 28

AVIA 1020	Aeronautics	2
AVIA 4010	Aerodynamics	3
AVIA 4040	Aviation Management	3
AVIA 4090	Aviation Law	3
AVIA 4310	Air Traffic Control	2
AVIA 4420	Air Transportation	3
AVIA 4500	Aviation Safety	3
¹⁰ AVIA 4999	Integrative Studies Capstone	3
MGT 3325	Business Communications	3
MGT 3315	Management of Organizations, 3 or	
INDM 4210	Industrial Management, 3	3

Major Specialization (Professional Pilot) 20

AVIA 2310	Propulsion Systems	3
AVIA 2340	Aircraft Systems & Components	3
AVIA 3610	Human Factors	3
AVIA 4220	Transport Aircraft Systems	2
AVIA 4250	Flight Management Systems	3
AVIA 4370	Advanced Flight Crew Management	3
ATM 4032	Hydraulics & Pneumatics	3

Intro to Flying 8

AVIA 1310	FAA Private Requirements	3
AVIA 4350	Aviation Weather	3
FLYA 1320	Private Flight A	1
FLYA 1321	Private Flight B	1

NOTE: Students who enter the program with their Private Pilot Certificate will be awarded 5 credit hours (for AVIA1310/FLYA1320/FLYA1321) after they have completed their Instrument rating. See department for credit.

Elect one of the 2 areas 19

Area 1 Airplane - 19 hours

AVIA 3305	FAA Commercial Requirements	3
AVIA 3325	FAA Instrument Requirements	3
FLYA 3310	Commercial Flight A	1
FLYA 3311	Commercial Flight B	1
FLYA 3312	Commercial Flight C	1
FLYA 3313	Instrument Flight A	1
FLYA 3314	Instrument Flight B	1
FLYA 3315	Commercial Flight D, 1 or	
FLYA 3415	Commercial Flight D Multiengine, 1	1
FLYA 3316	Commercial Flight E, 1 or	
FLYA 3416	Commercial Flight E Multiengine, 1	1
FLYA 3317	Commercial Flight F, 1 or	
FLYA 3417	Commercial Flight F Multiengine, 1	1
FLYA 3330	Multi-Engine Certificate, 1 or	
FLYA 3430	Single-Engine Add-On, 1	1
Electives		4

NOTE: Area 1 is FAA Approved for the Restricted ATP. Contact the Chief Flight Instructor for more details.

Area 2 Helicopter - 19 hours

AVIA 1330	Principles of Helicopter Flight	2
AVIA 3305	FAA Commercial Requirements	3
AVIA 3325	FAA Instrument Requirements	3
FLYH 1320	Private Helicopter Flight A Add-on	1
FLYH 1321	Private Helicopter Flight B Add-on	1
FLYH 3310	Commercial Flight A Helicopter	1
FLYH 3311	Commercial Flight B Helicopter	1
FLYH 3312	Commercial Flight C Helicopter	1
FLYH 3315	Commercial Flight D Helicopter	1
FLYH 3316	Commercial Flight E Helicopter	1
FLYH 3317	Commercial Flight F Helicopter	1
Electives		3

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GECON 1010	Principles of Macroeconomics	3
GENGL 1030	Composition II	3
GMATH 1131	Applied Calculus	3
GEPHYS 1104	Intro to the Sciences: Physics	4

FREE ELECTIVES 3
 MINIMUM TOTAL 120

¹⁰Competency 10 course

AVIATION

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor.
 (157)

Sem. Hours

MINOR REQUIREMENTS 21

AVIA 1020	Aeronautics, 2 or	
AVIA 1310	FAA Private Requirements, 3	2-3
Approved electives in aviation**		19

**Must include at least one upper-level (3000/4000) course to meet graduation requirements.

NOTE: Students majoring in any Aviation Department major are not eligible for this minor.

Air Force Reserve Officer Training Corps (AFROTC) Program

University of Central Missouri offers an Air Force Reserve Officer Training Corps (AFROTC) program in cooperation with the University of Missouri - Columbia. Students enroll in one course per semester at UCM and participate in the program one day per week on the University of Missouri - Columbia campus. Credits earned in the program can count as free elective credit toward any degree program at UCM, however not all programs require free electives. Courses are taught by active duty Air Force officers assigned as ROTC faculty on the University of Missouri - Columbia campus. All undergraduate and graduate students are eligible to enroll in Air Force ROTC courses. For additional information contact the Aviation Department Chair.

COMMUNICATION DISORDERS AND SOCIAL WORK

The Department of Communication Disorders and Social Work
 Wood 005
 660-543-4407
 ucmo.edu/cdsw

COMMUNICATION DISORDERS

Overview of Program

The primary purpose of the B.S. Degree in Speech-Language Pathology is to prepare students for possible admission to graduate programs in either Speech-Language Pathology or Audiology. Completion of the B.S. Degree in Speech-Language Pathology does not provide the qualifications that students will need for employment as a speech-language pathologist or audiologist, nor does it guarantee admission to a graduate program in Speech-Language Pathology or Audiology; however, the undergraduate degree can lead to employment opportunities in a variety of related fields. The Master's degree is considered the entry level degree to enter the field of Speech-Language Pathology. The clinical doctorate (AuD), not currently offered at UCM, is the entry level degree to enter the field of Audiology. The Communication Disorders program at the University of Central Missouri is accredited by the Council on Academic Accreditation of the American Speech-Language Hearing Association (ASHA) in Speech-Language Pathology.

Undergraduate Student Learning Outcomes

The graduate with a Bachelor of Science in Speech-Language Pathology will use the knowledge and skills obtained in the program to:

1. Demonstrate knowledge of information regarding prevention,

- assessment and intervention concerning communication differences and disorders and swallowing or other upper aerodigestive disorders.
2. Provide prevention, assessment and intervention services to children and adults across a wide range of speech and language disorders and differences in a closely supervised setting.
3. Demonstrate emerging skills in oral and written language to achieve effective clinical and professional interaction.
4. Begin to exhibit professional behavior as defined in the cardinal documents of the American Speech-Language-Hearing Association (ASHA) including but not limited to Certification Standards for the Certificate of Clinical Competence in Speech-Language Pathology, ASHA Scope of Practice in Speech-Language Pathology, ASHA Code of Ethics and ASHA Preferred Practice Patterns for the Profession of Speech-Language Pathology.
5. Collaborate with professionals and provide counseling to individuals and their families regarding speech and language differences and disorders in a closely supervised setting.
6. Begin to integrate classroom-based knowledge, clinical experience and technological resources to support Evidence-Based Practice in a guided clinical setting.

Undergraduate Admission Policies and Procedures

Student enrollment is limited to the following Communication Disorders courses unless the student is either provisionally or fully admitted to the undergraduate functional major in speech-language pathology: CD 1000, CD 1800, CD 2000, CD 2301, CD 3301, CD 4401, CD 4402, CD 4900. If the student is not provisionally or fully admitted to the undergraduate program, enrollment in Communication Disorders courses other than the ones listed above, shall be determined in conference with the director of undergraduate studies in the program.

Students who have been admitted to the undergraduate program and have not enrolled in Communication Disorders' courses for three consecutive semesters will be dropped from the undergraduate program. These students must reapply for admission to the undergraduate program prior to enrollment in any additional courses in Communication Disorders.

I. Admission of Non-Transfer Students

A. Admission Criteria:

1. Must have a minimal overall GPA of 3.20.
2. Must have earned a minimum of 30 university credit hours, applicable to graduation, including a grade of C or better in ~~ENGL~~ ENGL 1020 and ~~ENGL~~ ENGL 1030 or ~~ENGL~~ ENGL 1080.
3. Must have made a grade of C or better and a 3.20 GPA or better in the following CD courses: CD 1000, CD 1800, CD 2301, CD 3301.
4. Students may enroll in the four courses listed under I.A.3. a maximum of two times.
5. Students must complete a speech, language and hearing screening.
6. Students must submit a formal application for admission to the undergraduate Communication Disorders program.
7. Students who do not meet requirements I. A. 1-6. are ineligible for admission to the undergraduate Communication Disorders program.

B. Maintenance Criteria:

1. The first semester the student's overall GPA drops below a 3.20 after being admitted to the undergraduate program in Communication Disorders, the student will receive a letter of written academic warning from the Communication Disorders program.
2. Any student under academic warning whose overall GPA falls below a 3.20 for any subsequent semester will become ineligible to continue taking courses in the Communication Disorders program and/or to re-apply for admission to the undergraduate program.
3. Any student who receives a grade below C in any CD course or whose GPA drops below a 3.20 in CD courses will receive a letter of warning. Students must obtain a grade of C or better and a 3.20 GPA or better in all CD courses taken prior to completing an undergraduate major in Communication Disorders. Students may enroll in any CD course a maximum of 2 times.
4. Students must maintain a cumulative GPA of 3.20 or higher.

II. Admission of Undergraduate Transfer Students

- A. Admission Criteria:
 1. Transfer students must meet requirements I.A. 1-7.
 2. Students who are transferring two or more of the courses listed in I.A.3. and meet other criteria listed in I.A. will be provisionally admitted and must take an additional six semester hours of Communication Disorders courses at the University of Central Missouri before applying for full admission.
 3. Transfer students must demonstrate the competencies required for the UCM equivalent for any courses being transferred before applying for full admission to the undergraduate program.
- B. Maintenance Criteria:
 1. Same as for non-transfer students.
- C. Other
 1. A minimum letter grade of a C or better and a 3.20 GPA or better must be obtained for the six semester hours under II.A.2. for the transfer student to be able to apply for full admission to the undergraduate program. Those courses in which the undergraduate transfer student makes a grade below a C can be retaken only once. If this requirement is not met, the student becomes ineligible to continue taking courses in the Department of Communication Disorders and Social Work and/or to apply for full admission to the undergraduate major in speech-language pathology.

III. Post-Baccalaureate Students

Post-Baccalaureate Students must have permission of the program director to enroll in any Communication Disorders course.

IV. Clinical Practicum Requirements

Undergraduate students will complete the following practicum requirements as described below:

Orientation Policies and Procedures

All first-semester clinicians must enroll in CD 4802: Undergraduate Clinical Practicum I. Students will pay a one-time fee for a Clinic Shirt and name tag.

CPR 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.

Immunizations

Students must be tested yearly for Tuberculosis (TB) and submit results of testing to the Director of Clinical Services prior to beginning clinic each year. Additionally, students must submit proof of having initiated the three shot series of immunization against Hepatitis B prior to beginning clinical practicum.

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.

All immunizations that are required by the University of Central Missouri and recommended by the Centers for Disease Control and Prevention (CDC) and the Missouri Department of Health and Senior Services must be up to date prior to beginning clinical practicum. People who are not properly immunized pose a public health risk to their patients, co-workers and themselves.

If immunizations and TB tests are not up to date [for example, by virtue of an exemption], you may not be accepted at medical and/or educational clinical rotation sites, etc. This could prevent you from participating in a variety of clinical experiences which would ultimately prevent you from graduating.

Seasonal flu shots are being required by many external clinical sites and will not accept student clinicians who have not had this immunization.

Criminal Background Check

Prior to beginning clinic, students will receive the most recent criminal background check procedures from the Director of Clinical Services. If a background check is unsatisfactory, placement in clinic may not be possible. A student unable to be placed in clinic will not be able to complete the program.

Grades

Students who are under academic warning from the department may not enroll in any clinical practicum courses.

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 our clinic. These meetings are scheduled as needed throughout the semester.

Knowledge and Skills Acquisition (KASA)

The Bachelor 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 III, Program of Study-Knowledge Outcomes and IV, Program of Study-Skill Outcomes. These required knowledges and skills are delineated on the KASA. To understand the procedures associated with the KASA documentation, students are required to attend KASA trainings offered each semester. Students will be expected to demonstrate competency related knowledges and skills throughout their undergraduate program through formative and summative assessments. For all courses listed on the KASA, students must achieve a grade of C or better. Students' successful demonstration of the acquisition of knowledges and skills will be documented on the KASA. Students not demonstrating the achievement of course and practicum related knowledges and skills will be required to successfully complete remediation procedures that will then allow those knowledges and skills to be documented on the KASA. The faculty of the Communication Disorders Program has determined a grade of "B" or competency of a "4" or "5" on the KASA demonstrates specific knowledge and/or skills have been acquired for clinical practicum. In cases where the student's progression in the acquisition of knowledge and/or skill does not meet expectations within the semester, a plan for clinical remediation may be established. Remediation plans are designed to improve a student's knowledge and skills in a specific area of weakness. Successful completion of remediation procedures does not alter the final course grade.

SPEECH-LANGUAGE PATHOLOGY

Major, Bachelor of Science Degree
(43-273)

Sem. Hours

MAJOR REQUIREMENTS		56
AT	1625 CPR/AED for Health Care Professionals	1
CD	1000 Intro. to Comm. Disorders	3
CD	1800 Observ. of Clinical Practicum in Communication Disorders	1
CD	2301 American Phonetics	3
CD	3301 Anatomy & Physiology of Speech & Swallowing	2
CD	3304 Speech Science	3
CD	3503 Principles of Clinical Mgt.	3
CD	4102 Counseling Persons with Comm. Disorders & Their Families	2
CD	4103 Introduction to Evidence Based Practice in Comm. Disorders	2
CD	4401 Language Development	3
CD	4501 Basic Neuroscience for Speech- Language Pathologists	2
CD	4504 Introduction to Articulation & Phonological Disorders	3
CD	4505 School-age Issues in Lang. & Literacy	3
CD	4510 Multicultural Issues in Comm. Disorders	2
CD	4512 Best Practices in Early Ch. Intervention	3
CD	4701 Introduction to Audiology	3

CD	4706	Hearing Measurement	3
CD	4708	Aural Rehabilitation	3
CD	4802	Undergraduate Clinical Practicum I	1
¹⁰ CD	4803	Undergraduate Clinical Practicum II	1
EDSP	4700	IEP & the Law	3
PSY	3220	Life-Span Development	3
PSY	4520	Statistics for the Behavioral Sciences	3

GENERAL EDUCATION REQUIREMENTS **42**

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GE CD	1401	American Sign Language 1	3
GE COMM	1000	Public Speaking	3
GE PSY	1100	General Psychology	3
GE BIOL	1003	Intro. to the Sciences: Ecology, 3 or	
GE BIOL	1004	Introduction to the Sciences: Ecology, 4	3-4

FREE ELECTIVES **22**

MINIMUM TOTAL **120**

¹⁰Competency 10 course

SOCIAL WORK

Social Work Statement of Policy

Admission Policy

Students entering UCM as freshmen should indicate a social work major. Transfer students must meet all requirements. Admission to the social work program is conditional upon the successful completion of all necessary requirements.

Requirements for Admission to the Social Work Program

1. Completion of General Education courses listed as requirements of the social work major with a C or better.
2. Cumulative grade-point average of 2.00.
3. A minimum grade of C for courses listed as curriculum requirements of the social work major.
4. Completion of ~~GE~~PSY 1100, ~~GE~~SOC 1800, ~~GE~~BIOL 2010, ~~GE~~SOWK 2600, and SOWK 3601.
5. Students must complete a social work prefix course in residence prior to applying for admission into the social work program.
6. Submission of:
 - a. Application for Admission to social work program.
 - b. Transcript of all university work.
 - c. Three references including one from the volunteer supervisor.
 - d. Autobiographical statement.

The Admissions Packet will be distributed during an informational meeting scheduled for the students enrolled in SOWK 3601. Assistance will be provided as needed by faculty advisors.
7. Successful completion of an interview with Social Work Admissions Committee.
8. Provisional admission to the program requires the student to successfully complete a plan of corrective action and a subsequent interview with the Admissions Committee.

Criteria for Retention

Social Work students will be permitted to continue in the Social Work major by meeting certain "Criteria for Retention" as established by the program.

1. An earned grade of C or better in all courses listed as requirements of the social work major.
2. Students failing to earn a grade of C or better in either SOWK 4660 Field Practicum or SOWK 4661 Field Practicum Seminar are not permitted to repeat these courses.
3. Adherence to the National Association of Social Workers' Code of Ethics.
4. Demonstrate professional demeanor and maintain social functioning that allows for effective beginning level generalist social work practice. Social Functioning refers to students' ability to cope with the demands generated by interaction with their environment, including school, work,

- family, and personal and professional relationships.
5. Demonstration of effective verbal and written communication skills.
6. Continued enrollment as a student in good standing at UCM.

Accreditation

The principal educational objective of the Bachelor of Social Work program is to prepare students for generalist social work practice. The Bachelor of Social Work program is accredited by the Council on Social Work Education, a specialized accrediting body recognized by the Council for Higher Education Accreditation (CHEA). The Council on Social Work Education (CSWE) is located at 1725 Duke Street, Suite 500, Alexandria, VA 22314-3457; phone 703-683-8080; email info@cswe.org.

SOCIAL WORK

Major, Bachelor of Social Work Degree
(48-847)

The graduate with a Bachelor of Social Work degree will use the knowledge and skills obtained in the program to:

- Identify as a professional social worker and conduct one's self accordingly.
- Apply social work ethical principles to guide professional practice.
- Apply critical thinking to inform and communicate professional judgments.
- Engage diversity and differences in practice.
- Advance human rights and social and economic justice.
- Engage in research-informed practice and practice-informed research.
- Apply knowledge of human behavior and the social environment.
- Engage in policy practice to advance social and economic well-being and to deliver effective social work services.
- Respond to contexts that shape practice.
- Engage, assess, intervene, and evaluate with individuals, families, groups, organizations, and communities.

Sem. Hours

MAJOR REQUIREMENTS **51**

SOC	2805	Introduction to Social Research	3
SOC	3825	Race & Ethnic Relations	3
GE SOWK	2600	Intro. to Soc. Welfare & Social Work	3
SOWK	3601	Soc. Work Practice & Agency Experience	3
SOWK	3605	Methods of Inquiry & Evaluation for Social Workers	3
SOWK	3610	Social Work Practice: Basic Skills	3
SOWK	3612	Human Behavior Across the Lifespan	3
SOWK	4610	Special Topics in Social Work 3, or	
SOWK	4620	Social Services & Policy with Older Adults, 3	3
SOWK	4612	Human Behavior Social Systems	3
SOWK	4630	Social Work Practice: Intervention with Families & Groups	3
SOWK	4640	Social Work Practice: Intervention with Communities & Org.	3
SOWK	4650	Social Policy & Economic Justice	3
SOWK	4660	Field Practicum	9
¹⁰ SOWK	4661	Field Practicum Seminar	3
PSY	4440	Abnormal Psychology	3

GENERAL EDUCATION REQUIREMENTS **42**

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GE BIOL	2010	Human Biology	3
GE PSY	1100	General Psychology	3
GE SOC	1800	General Sociology	3

FREE ELECTIVES **27**

MINIMUM TOTAL **120**

¹⁰Competency 10 course

CRIMINAL JUSTICE

The Department of Criminal Justice
 Humphreys 300
 660-543-4950
 ucmo.edu/cj

Only courses with a grade of C or better (including transfer courses) may be used to fulfill a requirement in any major or minor offered exclusively by the Department of Criminal Justice. Students taking CJ courses to meet the requirements of majors/minors in other departments may use a D grade to fulfill requirements, unless stipulated by that department.

CRIMINAL JUSTICE

Major, Bachelor of Science Degree
 (43-842)

The graduate with a Bachelor of Science degree in Criminal Justice will use the knowledge and skills obtained in the program to:

- Discern the basic components of the criminal justice system and understand the interrelationship within and between these components.
- Specify how justice institutions operate within society, as well as how they differ.
- Read and utilize articles from academic journals.
- Recognize personal assumptions, as well as basic American assumptions in analyzing positions on justice issues.
- Communicate effectively both in written and oral form.
- Conduct and report basic research procedures in accord with the scholarly practices of the discipline of Criminal Justice, including the principles of documentation, the acquisition of resources and do so in line with the ACJS Code of Ethics.
- Create reasonable linkages between empirical evidence and theory utilizing both inductive and deductive forms of logic.
- Recognize the complexity, ambiguity, and uncertainty that are present in the use of knowledge to address crime problems.

Sem. Hours

MAJOR REQUIREMENTS 36

GE/CJ	1000	Introduction to Criminal Justice	3
CJ	1605	Orientation to the CJ Major	1
CJ	2300	Criminal Law & Procedure	3
CJ	3006	Corrections	3
CJ	3010	Policing a Democratic Society	3
CJ	3600	Intro. to Crim. Justice Research & Stat.	3
CJ	3605	Junior Seminar in Criminal Justice	1
¹⁰ CJ	4605	Senior Sem. in Criminal Justice	1
CJ	4503	Dynamics of Criminal Behavior.	3
		Criminal Justice electives	15

GENERAL EDUCATION REQUIREMENTS 39

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE/CJ	1000	Introduction to Criminal Justice (3)
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FREE ELECTIVES 45

MINIMUM TOTAL 120

¹⁰Competency 10 course

CRIMINAL JUSTICE

Major, Accelerated Bachelor of Science and Master of Science Degree
 (43-614)

Sem. Hours

UNDERGRADUATE MAJOR REQUIREMENTS 30

GE/CJ	1000	Introduction to Criminal Justice	3
CJ	1605	Orientation to the CJ Major	1
CJ	2300	Criminal Law & Procedure	3
CJ	3006	Corrections	3

CJ	3010	Policing a Democratic Society	3
CJ	3600	Intro. to Crim. Justice Research & Stat.	3
CJ	3605	Junior Seminar in Criminal Justice	1
¹⁰ CJ	4605	Senior Seminar in Criminal Justice	1
CJ	4503	Dynamics of Criminal Behavior.	3
		Undergraduate Criminal Justice electives	9

GENERAL EDUCATION REQUIREMENTS 39

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE/CJ	1000	Introduction to Criminal Justice (3)
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UNDERGRADUATE FREE ELECTIVES 38

MINIMUM UNDERGRADUATE HOUR TOTAL 107

¹⁰Competency 10 course

REQUIRED GRADUATE COURSES 21

CJ	5000	CJ Philosophy & Policy	3
CJ	5003	Causes of Crime	3
CJ	5006	Comparative & International CJ Systems	3
CJ	5102	Administration in Criminal Justice	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

GRADUATE RESEARCH 12

- Thesis Option -

CJ	6600	Thesis	6
		Department approved Graduate electives.	6

OR

- Non-Thesis Option -

CJ	5600	Individual Research	3
		Department approved Graduate electives.	9

MINIMUM GRADUATE HOUR TOTAL 33

MINIMUM DUAL DEGREE PROGRAM HOUR TOTAL 140

CRIMINAL JUSTICE

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor.
 (829)

Sem. Hours

MINOR REQUIREMENTS 21

GE/CJ	1000	Introduction to Criminal Justice	3
CJ	2300	Criminal Law & Procedure	3
CJ	3006	Corrections	3
CJ	3010	Policing a Democratic Society	3
CJ	4503	Dynamics of Criminal Behavior.	3
		Elective in criminal justice	6

CORRECTIONS

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor.
 (709)

Sem. Hours

MINOR REQUIREMENTS 24

GE/CJ	1000	Introduction to Criminal Justice	3
CJ	2000	History of Corrections & Penal Inst.	3
CJ	3006	Corrections	3
CJ	3104	Institutional Operations	3
CJ	3310	Law of Corr. & Prisoners Rights	3
CJ	4006	Probation, Parole & Community Corrections	3

CJ	4330	Criminal Justice & the Mental Health Systems	3
CJ	4503	Dynamics of Criminal Behavior.	3

INTERNATIONAL JUSTICE

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor.
(855)

			Sem. Hours
MINOR REQUIREMENTS			21
CJ	3020	Comparative Justice Systems	3
CJ	3398	International Human Rights & Criminal Justice	3
CJ	4352	International Criminal Law	3
POLS	3530	International Organizations	3
POLS	4530	International Law	3
Electives in Criminal Justice/Geography/Political Science/Sociology			6
CJ	2405	International Policing	3
CJ	4444	Terrorism	3
CJ	4703	International Juvenile Justice	3
SOC	3885	Globalization & the Future	3
POLS	3520	Asian Government & Politics, 3 or	
GEOPOLS	3522	Modern East Asia, 3 or	
POLS	4520	Politics of Developing Nations, 3 or	
POLS	4521	Culture & Politics of the Middle East, 3 or	
POLS	4550	Politics in Europe, 3	3
GEOG	3200	Geography of Europe, 3 or	
GEOG	3225	Geography of Latin America, 3 or	
GEOG	3310	Geography of Africa, 3 or	
GEOG	4230	Geography of Asia, 3 or	
GEOG	4235	Geography of the Former Soviet Union, 3 or	
GEOG	3314	Geography of North Africa/ Southwest Asia, 3	3

Three credit hours may be granted for study in a UCM
approved program or study tour in a foreign country
which focuses on the justice structures of the country. 3

LEGAL STUDIES

Minor for a Bachelor's Degree

(555)

			Sem. Hours
MINOR REQUIREMENTS			21
*CJ	2300	Criminal Law & Procedure	3
BLAW	2720	Legal Environment Of Business	3
POLS	2580	Public Law & Judicial Process	3
Electives from the following			12
No more than 6 hours from any one discipline and at least 6 hours must be upper-level (3000/4000)			
*ACCT	3130	Introduction To Income Tax.	3
*ACCT	4130	Advanced Income Tax	3
AE	1240	LSAT Test Preparation	1
AVIA	4090	Aviation Law	3
BLAW	2750	Legal & Ethical Decision Making in the Workplace.	3
*BLAW	3721	Law Of Business Transactions	3
*BLAW	4740	Employment Law	3
COMM	2340	Argumentation & Debate	3
*COMM	4250	The Law & Digital Media	3
*CJ	3310	Law of Corr. & Prisoners Rights	3
CJ	3398	International Human Rights & CJ	3
CJ	4300	Critique Crim. Law & Crim. Proc.	3

CJ	4302	Evidence & Courtroom Procedure	3
*CJ	4321	Civil Remedies in CJ	3
*CJ	4330	CJ & the Mental Health Systems	3
CJ	4352	International Criminal Law	3
CJ	4390	The Death Penalty	3
CJ	4701	Juvenile Law & Policy	3
*EDSP	4700	IEP & the Law	3
FIN	4804	Emp. Benefits & Ret. Plan.	3
HIM	4840	Legal Aspects of Hotel & Res. Mgt.	3
INDM	4015	Legal Aspects of Industry	3
PE	4740	Legal Liability in Fitness/Wellness, Physical Education, Recreation, & Sports Settings	3
PHIL	1400	Deductive Logic.	3
GEPHIL	1410	Critical Thinking	3
GEPHIL	2300	Ethics.	3
GEPOLS	2581	Trial Advocacy	3
POLS	4530	International Law	3
POLS	4580	American Constitutional Law	3
POLS	4581	Civil Rights & Liberties.	3
POLS	4583	First Amendment	3
*REL	4520	Legal Issues & Religions.	3
*SAFE	4020	Legal Aspects of Safety & Health	3
*SAFE	4425	Safety & Health Legislation & Standards	3
*SAFE	4430	Workers Comp Legislation.	3

*This course has a prerequisite; see specific class listing in the catalog for
additional requirements.

CONSERVATION ENFORCEMENT

**Major, Bachelor of Science Degree,
Conservation Enforcement Studies option**

See requirements as outlined in the Department of Biology and Agriculture.

FORENSIC SCIENCE

Minor for a Bachelor's Degree

See requirements as outlined in the Department of Biology and Agriculture.

MILITARY SCIENCE AND LEADERSHIP

The Department of Military Science and Leadership

Humphreys 101

660-543-4866

ucmo.edu/rotc

The Army Reserve Officers Training Corps (ROTC) selects, trains, retains, develops, and commissions high quality future leaders for the United States Army and the nation. Our vision is to be one of the Nation's premier ROTC programs by continuing to develop adaptive warrior leaders that can successfully lead our most treasured commodity - the United States Army Soldier. Courses offered by this department are designed to offer qualified students an opportunity to become a commissioned Army officer. The curriculum provides opportunities for leadership training and experience that are not duplicated in other college courses. Instruction encourages the development of resource management skills, self-assurance, confidence, personal discipline, executive abilities, personal responsibility, professional ethics, physical stamina, bearing, and other fundamental qualities required of an Army officer. These same qualities will enhance any civilian career.

Our Freshman (Military Science I) and Sophomore (Military Science II) level courses are available to anyone who is interested, and any student may enroll in them without meeting any military prerequisites or incurring any obligations. This is an excellent way to learn more about the Army, gain some leadership training, and/or decide if the Army might be a career they would like to pursue. Additionally, this counts as a free elective in their degree program and all books are provided free of charge.

Army ROTC **Scholarships** are available for two, three, and four years to college freshmen, sophomores, and graduate students. The scholarships provide financial assistance for the education and training of motivated students who desire to serve as Army officers after graduation from college. If awarded a scholarship, the Army will pay full tuition, provide \$1,200 a year for books and lab fees, and provide a \$300 to \$500 per month stipend while school is in session.

The Simultaneous Membership Program (SMP) is a volunteer officer training program that allows Army National Guard and Army Reserve enlisted members to participate in the Advance ROTC Program. Upon completion of Basic Training, a reserve component soldier that is an academic sophomore can join ROTC and earn a commission as an officer in the United States Army upon graduation.

Qualified cadets may attend Airborne School, Air Assault School, Drill Cadet Leader Training, and ROTC nurse summer training. Additionally, Advanced Course cadets may attend Cadet Troop Leadership Training (CTLT), serving up to four-weeks with an active Army unit.

To qualify for a commission as a Second Lieutenant, a student must comply with all terms of his/her contract; successfully complete Basic Military Science or equivalent; successfully complete MS 3310, MS 3320, MS 3330, MS 3340, MS 4410, MS 4420, MS 4430, MS 4440 and MS 4510; complete all University requirements for a bachelor's degree; meet the physical standards of current U.S. Army regulations and agree to accept an Active Army, Army National Guard or Army Reserve duty assignment. Additionally, candidates for a commission must complete a Military History course.

More information can be obtained by contacting John Wolfmeyer at 660-543-4863 or our Facebook page at <https://www.facebook.com/pages/FightingMulesBattalionUCMArmyROTC/>

MILITARY SCIENCE

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor (201)

	Sem. Hours
MINOR REQUIREMENTS	32-34
MS 3310 Adaptive Tactical Leadership	3
MS 3320 Leadership in Changing Environments	3
MS 3330 Intro. to the Army Physical Fitness Program	2
MS 3340 Concepts in Fitness Training Dev.	2
MS 4410 Developing Adaptive Leaders	3
MS 4420 Leadership in a Complex World	3
MS 4430 Mgt. of the Unit Fitness Program	2
MS 4440 The Army Master Fitness Training Program	2
MS 4510 Advanced Summer Camp	3
Elective from the following	3
MS 2500 History of the US Army	3
HIST 4316 The American Military Experience	3
Equivalent Military History Course (chair approval)	3
Electives from the following	6-8
MS 1110 Leadership & Personal Development	2
MS 1120 Introduction to Tactical Leadership	2
MS 2210 Innovative Team Leadership	2
MS 2220 Found. of Tactical Leadership, 2 or	
MS 2510 Basic Summer Camp, 3	2-3
Departmentally approved electives	3-6
Active duty or reserve forces basic training	3

MISSOURI SAFETY CENTER

The Missouri Safety Center
 Humphreys 200
 660-543-4830
ucmo.edu/safetycenter/

CENTRAL MISSOURI POLICE ACADEMY

These five classes constitute the curriculum of the Central Missouri Police Academy (CMPA); a basic 600 hour Class-A academy licensed by the Missouri Department of Public Safety's Peace Officer Standards and Training (POST) Program. Students who graduate from the academy and successfully pass the POST exam are eligible to be licensed Peace Officers and will receive 15 hours of elective credit toward a Bachelor's degree. **These courses are not open enrollment;** applicants must first be approved by the CMPA Director.

REQUIREMENTS	Sem. Hours
MSC 2110 Police Academy I	3
MSC 2120 Police Academy II	3
MSC 2130 Police Academy III	3
MSC 2140 Police Academy IV	3
MSC 2150 Police Academy V	3
	15

CRISIS & DISASTER MANAGEMENT

Major, Bachelor of Science Degree

(43-248; 43-250; 43-251, 43-886)

The graduate with a Bachelor of Science degree in Crisis and Disaster Management will use the knowledge and skills obtained in the programs to:

- Demonstrate a knowledge and application of the four phases of emergency management; preparedness, mitigation, response and recovery.
- Evaluate the roles, responsibilities and relationships between the private sector, public sector and non-governmental organizations in the response and recovery phases of an event.
- Select methods to identify and evaluate risk exposures from internal and external hazards and to implement cost effective programs to maintain continuity of operations.
- Employ effective communication skills, knowledge of program management, organizational skills and critical thinking.
- Select technology to organize information, to communicate and to manage all phases of emergency management.
- Recognize societal concerns, legal, professional and ethical responsibilities in the field.
- Value the importance of continuous professional development in the discipline.

CRISIS AND DISASTER MANAGEMENT

Bachelor of Science Degree

	Sem. Hours
MAJOR REQUIREMENTS	36
CDM 3000 Intro. Crisis & Disaster Management	3
CDM 3400 Community Mitigation & Recovery	3
CDM 4200 Disaster Management Technology	3
CDM 4400 Research Issues in Crisis & Disaster Management	3
¹⁰ CDM 4800 Integrated Emergency Management	3
CDM 4900 Technology Application Studies	3
CDM 4910 Field Exercise Project	3
CDM 4990 Practicum in Crisis & Disaster Mgmt.	3
Select one of the following areas	12

BUSINESS CONTINUITY AREA

(43-251)

CDM 4715 Business Continuity Planning	3
CDM 4735 Critical Infrastructure	3
CDM 4745 Crisis Management	3
Departmentally approved technical elective	3

EMERGENCY MANAGEMENT AREA

(43-248)

CDM 3035 Emergency Response Planning	3
CDM 4015 Catastrophic Readiness	3
CDM 4035 Disaster & Society	3
Departmentally approved technical elective	3

EMERGENCY SERVICES MANAGEMENT AREA

(43-886)

CDM 4515	Safety & Health for Emer. Responders . . .	3
CDM 4535	Emergency Services Mgt.	3
CDM 4575	Emergency Services Personnel Mgt.	3
	Departmentally approved technical elective	3

ENVIRONMENTAL HAZARDS AREA

(43-250)

CDM 3225	Hazardous Materials Emer. Response . . .	3
CDM 4215	Environmental Disasters	3
CDM 4245	Managerial Issues in Haz. Materials . . .	3
	Departmentally approved technical elective	3

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

CHEM 1103	Intro. to the Sciences: Chemistry, 3 or	
CHEM 1104	Intro. to the Sciences: Chemistry, 4	3-4

FREE ELECTIVES 42

MINIMUM TOTAL 120

¹⁰Competency 10 course

DRIVER EDUCATION

The Missouri Department of Elementary and Secondary Education requires successful completion of the following courses to receive a Driver Education Instructor endorsement on a teaching certificate for grades 9-12. The first two courses (2010 & 2020) are taught on-line during the Spring Semester. The remaining two courses (2030 & 2040) are offered during the Summer Semester and have mandatory on-site commitments of 15 hours each for a total of 30 hours. These hours must be scheduled during the Missouri Safety Center's Summer High School Driver Education program, typically during the month of June each year. If a student has been fully admitted to a bachelor's degree, master's degree, education specialist degree, or teaching certification program offered at UCM, financial aid can normally be used to help pay the cost to enroll for the above classes.

(213) Sem. Hours

REQUIREMENTS 12

DRED 2010	Introduction to Safety Education	3
DRED 2020	Driver Task Analysis	3
DRED 2030	Dev. Vehicle Operation Skills & Competencies	3
DRED 2040	Developing Classroom Knowledge	3

CERTIFICATES

BUSINESS CONTINUITY CERTIFICATE (10-591) 12

CDM 3000	Intro. to Crisis and Disaster Management . . .	3
CDM 4715	Business Continuity Planning	3
CDM 4735	Critical Infrastructure	3
CDM 4745	Crisis Management	3

EMERGENCY MANAGEMENT CERTIFICATE (10-592) 12

CDM 3000	Intro. to Crisis and Disaster Management . . .	3
CDM 3035	Emergency Response Planning	3
CDM 4015	Catastrophic Readiness	3
CDM 4035	Disaster and Society	3

NOTE: Pending MDHE approval.

EMERGENCY SERVICES MANAGEMENT CERTIFICATE (10-887) . 12

CDM 3000	Intro. to Crisis and Disaster Management . . .	3
CDM 4515	Safety & Health for Emer. Responders	3
CDM 4535	Emergency Services Management	3
CDM 4575	Emergency Services Personnel Mgt.	3

ENVIRONMENTAL HAZARDS CERTIFICATE (10-593) 12

CDM 3000	Intro. to Crisis and Disaster Management . . .	3
CDM 3225	Hazardous Materials Emergency Response . . .	3
CDM 4215	Environmental Disasters	3
CDM 4245	Managerial Issues in Hazardous Materials . . .	3

COLLEGE OF HEALTH, SCIENCE, AND TECHNOLOGY

The College of Health, Science, and Technology
Administration 105
660-543-4450
Fax 660-543-8031
ucmo.edu/chst

The College of Health, Science, and Technology is comprised of:

- The Department of Biology and Agriculture
- The Department of Mathematics and Computer Science
- The Department of Nursing
- The Department of Nutrition and Kinesiology
- The Department of Psychological Science
- The School of Environmental, Physical and Applied Sciences
- The School of Technology

The back of this catalog includes course descriptions of all classes taught at the undergraduate level. Course descriptions can also be found online in MyCentral.

College of Health, Science, and Technology Pre-Professional Programs

Students interested in the premedical, pre-osteopathy, and pre-veterinary medicine program should plan to attend the University for four years and graduate with a Bachelor of Science degree. The student should major in biology and minor in chemistry or major in chemistry and minor in biology. Additional electives are required depending upon the student's needs and interest area.

Students interested in pre-dental, pre-occupational therapy pre-optometry, and pre-physical therapy should plan to attend the University two or more years to meet the minimum requirements in biology, chemistry, mathematics, physics, and pre-engineering required by the professional school. Additional electives are required depending upon the student's needs and interest area.

Students interested in the pre-pharmacy program should consult the Chair of the School of Environmental, Physical and Applied Sciences for suggested curriculum.

BIOLOGY AND AGRICULTURE

The Department of Biology and Agriculture
W.C. Morris 306
660-543-4933
ucmo.edu/biology

AGRICULTURE

AGRICULTURE

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor.
(110)

Sem. Hours

MINOR REQUIREMENTS	24
AGRI 1310 Agronomy I: Row Crops	2
AGRI 1420 Introduction to Animal Science	3
AGRI 2330 Introduction to Soil Science	3
AGRI 3120 Dist. & Mkt. Agri. Products	3
GE/CHEM 1104 Intro. to the Sciences: Chemistry	4
*ECON 1011 Principles of Microeconomics	3
AGRI 1200 Agriculture Mechanics, 3 or	
AGRI 3200 Farm Power & Machinery, 3	3
AGRI 1600 Introductory Horticulture Science	3

* This course has prerequisites not listed in the program; see specific class listing in the catalog for additional requirements.

NOTE: Pending MDHE approval.

AGRICULTURAL SCIENCE

Major, Bachelor of Science Degree
(43-890)

The graduate with a Bachelor of Science degree in Agricultural Science will use the knowledge and skills obtained in the program to:

- Use language and concepts of agricultural science effectively in written and oral communications.
- Demonstrate computer literacy.
- Demonstrate an understanding of theories and principles of economics and agricultural science appropriate to the agri-business firm.
- Demonstrate an understanding of the basic practices and theory of agricultural production (agricultural literacy.)
- Provide evidence of an international-global perspective of agriculture.
- Demonstrate appropriate and effective social interactions.
- Demonstrate ability to analyze situations and solve problems in an agricultural science context.
- Demonstrate knowledge of how national and international policies impacting agriculture are developed.

Sem. Hours

MAJOR REQUIREMENTS . . . . .	.60-66
CORE	39
AGRI 1100 Introduction to Agriculture	1
AGRI 1420 Introduction to Animal Science	3
AGRI 1600 Introductory Horticulture Science	3
AGRI 2330 Introduction to Soil Science	3
AGRI 2425 Introduction to Animal Production	3
AGRI 3110 Agri-Business Management	3
AGRI 3120 Dist. & Mktg. Agri. Products	3
AGRI 3610 Agriculture Pest Management	3
AGRI 3810 Internship In Agriculture	3
¹⁰ AGRI 4101 Agriculture Capstone Experience	3
AGRI 4300 Soil Fertility & Fertilizers	3
AGRI 1310 Agronomy I: Row Crops, 2 or	
AGRI 2315 Agronomy II: Forages, 2	2
AGRI 3410 Animal Breeding, 3 or (required for Area 2)	
AGRI 4310 Plant Breeding & Genetics, 3	3
ECON 1011 Principles of Microeconomics	3
Elect one of the 4 areas	21-27

Area 1 Agribusiness Management - 27 hours

AGRI 3140 Agriculture Analysis & Statistics	3
AGRI 4110 Agricultural Futures Trading	3
AGRI 4120 International Agriculture	3
AGRI 4140 Agricultural Policy	3
AGRI 4150 Natural Resource Economics	3
BLAW 2720 Legal Environment of Business	3
MGT 3325 Business Communications	3
MKT 3430 Professional Sales	3
ACCT 2100 Survey of Accounting, 3, or	
ACCT 2101 Principles of Financial Accounting, 3	3

Area 2 Animal Sciences - 21 hours

AGRI 3415 Meat Science	3
AGRI 3420 Animal Nutrition	3
AGRI 4110 Agricultural Futures Trading	3
AGRI 4415 Reproduction of Farm Animals	3

Sem. Hours

AGRI	4430	Animal Science: Beef	3
AGRI	4435	Animal Science: Pork	3
AGRI	4410	General Veterinary Science	3
Area 3 Agronomy - 21 hours			
AGRI	2331	Soils	3
AGRI	3210	Soil and Water Management	3
AGRI	3320	Field Crop Management	3
AGRI	4110	Agricultural Futures Trading	3
AGRI	4120	International Agriculture	3
AGRI	4340	Agricultural Sprays & Chemicals	3
GEOG	4220	Geographic Information Systems I	3
Area 4 Horticultural Science - 21 hours			
AGRI	3620	Residential Landscape Design	3
AGRI	3640	Horticultural Propagation Materials	3
AGRI	4000	Special Projects in Agriculture	3
AGRI	4340	Agricultural Sprays & Chemicals	3
AGRI	4600	Horticultural Plants I: Woody	3
AGRI	4605	Horticultural Plants II: Herbaceous	3
AGRI	4610	Turfgrass Science	3
GENERAL EDUCATION REQUIREMENTS 42			
All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:			
GEAGRI	2130	Global Agriculture	3
GECOMM	1000	Public Speaking	3
GECHEM	1104	Introduction to Sciences: Chemistry	4
GECON	1010	Principles of Macroeconomics	3
GEIS	1600	Univ. Library & Research Skills	2
GE MATH	1111	College Algebra	3
FREE ELECTIVES 12-18			
MINIMUM TOTAL 120			
¹⁰ Competency 10 course			

BIOLOGY

NOTE: Careers in professional specialties in biology generally require preparation through at least the masters degree. The biology programs at UCM provide preparation for students who plan professional work in the following biological specialties:

- Biomedical Sciences
- Conservation Enforcement
- Entomology
- Environmental Biology
- Fisheries and Estuarine Ecology
- Forest Biology
- Marine Biological Sciences
- Oceanography
- Plant Science
- Systematic Botany
- Wildlife Conservation

BIOLOGY

Major, Bachelor of Science Degree (43-380)

The graduate with a Bachelor of Science degree in Biology will use the knowledge and skills obtained in the program to:

- Apply fundamental biological principles from major areas of biology (ecology and evolutionary biology, organismal biology, and cellular and molecular biology) to solve problems in wildlife and natural resources conservation, health/biomedical fields, conservation enforcement and life science.
- Use discipline appropriate laboratory/field techniques and/or instruments with understanding, accuracy, precision and safety in order to answer biological questions.
- Use the language and concepts of Biology to communicate effectively in oral and written form.
- Exhibit the ethical use of knowledge, materials and procedures that demonstrates an impact on society.

MAJOR REQUIREMENTS 51-61

CORE		7
BIOL	1000	The Discipline of Biology & Earth Science 1
BIOL	1110	Principles of Biology 3
¹⁰ BIOL	4222	The Biological Perspective 3

Elect one of the 7 areas 44-54

Area 1

General Biology		47
BIOL	1111	Plant Biology 4
BIOL	1112	Animal Biology 4
BIOL	2020	General Ecology 3
BIOL	2512	Cell Biology 3
BIOL	3511	Genetics 4
BIOL	3611	Microbiology 4
BIOL	3712	Field Natural History 4
BIOL	4013	Intro. to Exp. Design & Analysis 3
BIOL	4102	Evolution 3
BIOL	3431	Animal Physiology, 4 or
BIOL	4411	Plant Physiology, 4 4
BIOL	4001	Ecology Senior Seminar, 1 or
BIOL	4002	Life Science Senior Seminar, 1 1
GE/CHEM	1131	General Chemistry I 5
CHEM	1132	General Chemistry II 5

Area 2

Ecology and Evolutionary Biology		51
BIOL	1111	Plant Biology 4
BIOL	1112	Animal Biology 4
BIOL	2020	General Ecology 3
BIOL	3711	Plant Identification 4
BIOL	4001	Ecology Senior Seminar 1
BIOL	4013	Intro. to Exp. Design & Analysis 3
BIOL	4102	Evolution 3
BIOL	4709	Plant Ecology 4
BIOL	4711	Animal Ecology 4
GE/CHEM	1131	General Chemistry I 5
CHEM	1132	General Chemistry II 5
Electives from the following		8
BIOL	3709	Dendrology 4
BIOL	4210	Ichthyology 4
BIOL	4221	Mammology 4
BIOL	4223	Ornithology 4
BIOL	4232	Herpetology 4
BIOL	4312	Entomology 4
BIOL	4953	Field Ecology 1-6
Elective from the following		3
AGRI	2330	Introduction to Soils 3
AGRI	4150	Natural Resource Economics 3
GE/CTE	3060	Technical Writing 3
ECON	4020	Natural Resource Economics 3
GEOG	4220	Geographic Info. Systems I 3
GEOG	4291	Conservation of Nat. Resources 3

Area 3

Wildlife and Natural Resource Conservation		45-51
BIOL	1111	Plant Biology 4
BIOL	1112	Animal Biology 4
BIOL	2020	General Ecology 3
BIOL	3711	Plant Identification 4
BIOL	4001	Ecology Senior Seminar 1
BIOL	4013	Intro. to Exp. Design & Analysis, 3 or
GE/MATH	1300	Basic Statistics 3
BIOL	4102	Evolution, 3
OR		
GE/BIOL	2510	Basic Genetics, 3
OR		
BIOL	3511	Genetics, 4 and
GE/CHEM	1131	General Chemistry I, 5 3-9
Physical Science Electives (9 hours from 2 disciplines)		9
GE/CHEM	1131	General Chemistry I 5
GEASAC	1004	Introduction to Geology 4
EASC	3111	Geomorphology 3

GEPHYS 1101	College Physics I	4	BIOL 2512	Cell Biology	3
AGRI 2330	Introduction to Soils	3	BIOL 3511	Genetics	4
Wildlife Management and Conservation Electives		6	BIOL 3611	Microbiology	4
BIOL 3721	Wildlife Management	3	BIOL 4002	Life Science Senior Seminar	1
BIOL 4722	Conservation Biology	3	BIOL 4514	Molecular Biology	3
BIOL 4919	Wildlife Policy & Law	3	BIOL 4515	Molecular Technology Lab	2
GEOG 4291	Conservation of Natural Resources	3	GECHEM 1131	General Chemistry I	5
Wildlife and Habitat Biology Electives		8	CHEM 1132	General Chemistry II	5
BIOL 3709	Dendrology	4	BIOL 4411	Plant Physiology, 4 or	
BIOL 3712	Field Natural History	4	BIOL 3431	Animal Physiology, 4,	4
BIOL 4210	Ichthyology	4	Electives from the following		7-8
BIOL 4221	Mammalogy	4	BIOL 3413	Immunology	3
BIOL 4223	Ornithology	4	BIOL 4311	Parasitology	4
BIOL 4232	Herpetology	4	BIOL 4516	Hematology/Virology	3
BIOL 4312	Entomology	4	BIOL 4517	Serology Lab	1
BIOL 4411	Plant Physiology	4	AGRI 4310	Plant Breeding & Genetics	3
BIOL 4709	Plant Ecology	4	AGRI 4320	Plant Diseases	3
Area 4			CHEM 3341	Organic Chemistry I	4
Integrative Biology		50-52	CHEM 3421	Intermediate Biochemistry	3
BIOL 2020	General Ecology	3	GEPHYS 1101	College Physics I	4
BIOL 2512	Cell Biology	3	Area 6		
BIOL 3511	Genetics	4	Pre-Med., Pre-Dental, Pre-Vet.		54
BIOL 4102	Evolution	3	BIOL 1112	Animal Biology	4
GECHEM 1131	General Chemistry I	5	BIOL 2512	Cell Biology	3
CHEM 1132	General Chemistry II	5	BIOL 3511	Genetics	4
GEPHYS 1101	College Physics I	4	BIOL 3611	Microbiology	4
BIOL 4001	Ecology Senior Seminar, 1 or		BIOL 4002	Life Science Senior Seminar	1
BIOL 4002	Life Science Senior Seminar, 1	1	BIOL 3211	Comparative Anatomy, 4 and	
Choose Plant Biology or Animal Biology emphasis			BIOL 3431	Animal Physiology, 4,	
Plant Biology emphasis		22-24	OR		
BIOL 1111	Plant Biology	4	BIOL 3401	Human Anatomy, 3 and	
BIOL 3711	Plant Identification	4	BIOL 3402	Human Physiology, 5,	8
BIOL 4411	Plant Physiology	4	GECHEM 1131	General Chemistry I	5
BIOL 4709	Plant Ecology	4	CHEM 1132	General Chemistry II	5
Electives from the following		6-8	CHEM 3341	Organic Chemistry I	4
BIOL 3611	Microbiology	4	CHEM 3342	Organic Chemistry II	4
BIOL 4312	Entomology	4	GEPHYS 1101	College Physics I	4
BIOL 4514	Molecular Biology	3	Electives from the following		8
BIOL 4515	Molecular Technology Lab	2	BIOL 3213	Embryology of Vertebrates	3
EASC 3010	Environmental Geology	3	BIOL 3413	Immunology	3
AGRI 2330	Introduction To Soil Science	3	BIOL 3414	Histology	3
AGRI 2331	Soils	3	BIOL 4013	Intro. to Exp. Design & Analysis	3
AGRI 4310	Plant Breeding & Genetics	3	BIOL 4102	Evolution	3
AGRI 4320	Plant Diseases	3	BIOL 4311	Parasitology	4
GEOG 4220	Geographic Information Systems I	3	BIOL 4400	Endocrinology	2
Animal Biology emphasis		22-24	BIOL 4514	Molecular Biology	3
BIOL 1112	Animal Biology	4	BIOL 4515	Molecular Technology Lab	2
BIOL 3211	Comparative Anatomy	4	BIOL 4516	Hematology/Virology	3
BIOL 3431	Animal Physiology	4	BIOL 4517	Serology Lab	1
BIOL 4711	Animal Ecology	4	CHEM 3421	Intermediate Biochemistry	3
Electives from the following		6-8	PHYS 1102	College Physics II	4
BIOL 3213	Embryology Of Vertebrates	3	Area 7		
BIOL 3413	Immunology	3	Conservation Enforcement		44-45
BIOL 3414	Histology	3	BIOL 1111	Plant Biology	4
BIOL 3611	Microbiology	4	BIOL 1112	Animal Biology	4
BIOL 4210	Ichthyology	4	BIOL 2020	General Ecology	3
BIOL 4221	Mammalogy	4	BIOL 3711	Plant Identification	4
BIOL 4223	Ornithology	4	BIOL 4001	Ecology Senior Seminar	1
BIOL 4232	Herpetology	4	BIOL 4919	Wildlife Policy & Law	3
BIOL 4311	Parasitology	4	COMM 2620	Introduction to Public Relations	3
BIOL 4312	Entomology	4	GE CJ 1000	Introduction to Criminal Justice	3
BIOL 4400	Endocrinology	2	CJ 2300	Criminal Law & Procedure	3
BIOL 4514	Molecular Biology	3	CJ 4302	Evidence & Courtroom Procedure	3
BIOL 4515	Molecular Technology Lab	2	GE CTE 3060	Technical Writing	3
EASC 3010	Environmental Geology	3	Electives from the following		4
GEOG 4220	Geographic Information Systems I	3	BIOL 3712	Field Natural History	4
Area 5			BIOL 4210	Ichthyology	4
Biomedical/Cellular and Molecular Biology		46-47	BIOL 4221	Mammalogy	4
BIOL 1111	Plant Biology	4	BIOL 4223	Ornithology	4
BIOL 1112	Animal Biology	4	BIOL 4232	Herpetology	4
			BIOL 4312	Entomology	4
			Electives from the following		3

GE BIOL	2510	Basic Genetics	3
BIOL	4102	Evolution	3
BIOL	4722	Conservation Biology	3
Electives from the following			3-4
BIOL	3721	Wildlife Management	3
BIOL	4709	Plant Ecology	4
BIOL	4711	Animal Ecology	4

GENERAL EDUCATION REQUIREMENTS 32-38

All students must complete a minimum of 42 credit hours in general education. Depending on major area and courses selected, some hours in the major may count in general education. See pages 46-49 for full listing of requirements.

FREE ELECTIVES, MINOR OR AREA OF EMPHASIS 24-36

MINIMUM TOTAL 120

¹⁰Competency 10 course

BIOLOGY

Major, Bachelor of Science in Education Degree

Unified science certification to teach any of the beginning sciences, i.e., Physics I, Chemistry I, etc., and all levels of biology, grades 9-12. (41-487)

The graduate with a Bachelor of Science in Education degree in Biology will use the knowledge and skills obtained in the program to:

- Collect, analyze and apply information to solve problems (managing information & higher-order thinking).
- Use various laboratory techniques and/or instruments with understanding, accuracy, precision and safety (technology).
- Think logically within a Biology framework and be receptive to new ideas and concepts (higher-order thinking).
- Use the language and concepts of Biology to communicate effectively in oral and written form, to follow detailed instructions, and to function in independent and collaborative settings (communicating and interacting).
- Exhibit the ethical use of knowledge, materials and procedures that demonstrate an impact on society (valuing).
- Manage a secondary education program in Biology that has a laboratory emphasis, with confidence, enthusiasm, efficiency, and safety.

Sem. Hours

MAJOR REQUIREMENTS 60

BIOL	1000	The Discipline of Biology & Earth Science	1
BIOL	1111	Plant Biology	4
BIOL	1112	Animal Biology	4
BIOL	2020	General Ecology	3
BIOL	2512	Cell Biology	3
BIOL	3511	Genetics	4
BIOL	3611	Microbiology	4
BIOL	3431	Animal Physiology, 4 or	
BIOL	4411	Plant Physiology, 4	4
BIOL	3712	Field Natural History	4
GE EASC	1004	Introduction to Geology	4
GE CHEM	1131	General Chemistry I	5
STCH	4050	Science Teaching Methods	3
*GE PHYS	1101	College Physics I, 4 or	
GE PHYS	1104	Intro. to Sciences (Physics), 4 or	
GE PHYS	2121	University Physics I, 5	4-5
GE CTE	2000	Technology & Society	3
Electives (selected from courses listed below).			
Hours of electives taken must bring the total in the major to 60 hours			9-10
PSY	4520	Stat. for Behavioral Sciences	3
*CHEM	1132	General Chemistry II	5
CHEM	1604	Elem. Org. & Biochemistry	4
CHEM	3212	Quantitative Analysis	3
CHEM	3341	Organic Chemistry I	4
CHEM	3342	Organic Chemistry II	4
CHEM	4421	Advanced Biochemistry	3
EASC	3010	Environmental Geology	3

EASC	3112	Astronomy	3
*EASC	3114	Meteorology	3
EASC	3320	Mineralogy	4
*EASC	4010	Special Problems in Geology	1
*PHYS	1102	College Physics II, 4 or	
PHYS	2122	University Physics II, 5	4-5
PHYS	3511	Modern Physics I	3
PHYS	3611	Optics	3
PHYS	4312	Electricity & Magnetism	3
PHYS	3080	Adv. Physics Laboratory	1-2

Departmentally approved electives in Biology 9-10

UNIFIED SCIENCE CERTIFICATION - The starred (*) courses above must be taken as part of the elective credits for Unified Science certification in biology - certification to teach any of the beginning sciences (i.e., Chemistry I, Physics I, etc.) and all levels of biology, grades 9-12.

PROFESSIONAL EDUCATION REQUIREMENTS (page 90) 34

EDFL	2100	Foundations of Education	2
GE EDFL	2240	Educational Psychology	3
EDFL	3500	Secondary Teaching & Behavioral Mgt.	3
EDFL	4210	Teaching Reading in Secondary School	2
EDFL	4300	Educational Assessment & Evaluation	2
EDSP	2100	Education of the Exceptional Child	2
FLDX	2150	Introductory Field Experience	1
FLDX	3550	Practicum in Secondary Instruction	1
GE PSY	4230	Psychology of Adolescence	3
STCH	4050	Science Teaching Methods	3
Student Teaching semester:			
FLDX	4595	Student Teaching Secondary I	5
¹⁰ FLDX	4468	Student Teaching Secondary II	4
STCH	4080	Teaching Secondary Science	3

GENERAL EDUCATION REQUIREMENTS 30

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in (I) are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE CHEM	1131	General Chemistry I	(5)
GE CTE	2000	Technology & Society	(3)
GE EASC	1004	Introduction to Geology	(4)
GE HIST	1350	History of US to 1877, 3 or	
GE HIST	1351	History US from 1877, 3	3
GE POLS	1510	American Government	3
GE PSY	4230	Psychology of Adolescence	(3)

MINIMUM TOTAL 124

¹⁰Competency 10 course

BIOLOGY

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (476)

Sem. Hours

MINOR REQUIREMENTS 22

BIOL	1110	Principles of Biology	3
BIOL	2020	General Ecology	3
GE BIOL	2510	Basic Genetics	3
BIOL	2512	Cell Biology	3
BIOL	1111	Plant Biology, 4 or	
BIOL	1112	Animal Biology, 4	4
GE CHEM	1104	Intro. to Sci.: Chemistry, 4 or	
GE CHEM	1131	General Chemistry I, 5	4-5
Upper-level (3000/4000) elective in Biology			1-2

FORENSIC SCIENCE

Minor for a Bachelor's Degree

(491)

Sem. Hours

MINOR REQUIREMENTS22-25

Biology Major Track 25

GBIOL 2010 Human Biology, 3 or
 BIOL 3401 Human Anatomy, 33
 BIOL 3410 Forensic Science3
 GCHEM 1131 Chemistry I5
 CHEM 1132 Chemistry II5
 GECJ 1000 Intro. To Criminal Justice3
 CJ 3400 Criminal Investigation3
 CJ 4302 Evidence & Courtroom Procedure3

Chemistry Major Track 22

BIOL 1110 Principles of Biology3
 GBIOL 2010 Human Biology, 3 or
 BIOL 3401 Human Anatomy, 33
 BIOL 3410 Forensic Science3
 BIOL 3511 Genetics4
 GECJ 1000 Intro. To Criminal Justice3
 CJ 3400 Criminal Investigation3
 CJ 4302 Evidence & Courtroom Procedure3

***Criminal Justice Major Track 23**

BIOL 1110 Principles of Biology3
 GBIOL 2010 Human Biology, 3 or
 BIOL 3401 Human Anatomy, 33
 BIOL 3410 Forensic Science3
 BIOL 3511 Genetics4
 GCHEM 1131 Chemistry I5
 CHEM 1132 Chemistry II5

Any student pursuing a major other than Biology, Chemistry or Criminal Justice would need to take all of the required courses for the forensic science minor.

*Criminal Justice majors must take CJ 3400 and CJ 4302 as departmentally approved electives in the major.

MEDICAL TECHNOLOGY
Major, Bachelor of Science Degree
 (43-384)

The graduate with a Medical Technology Major, Bachelor of Science Degree will use the knowledge and skills obtained in the program to:

- Collect, analyze and apply information to solve problems. (managing information)
- Use various laboratory techniques and/or instruments with understanding, accuracy, precision and safety. (technology)
- Think logically within the scientific parameters of professional biologists. (higher-order thinking)
- Use the language and concepts of Biology to communicate effectively in oral and written form; to follow instructions precisely and to function in independent and collaborative settings. (communicating and interacting)
- Exhibit the ethical use of knowledge, materials and procedures that demonstrates an impact on society. (valuing)
- Challenge the licensure exam of the National Accrediting Agency for Clinical Laboratory Scientists (NAACLS) to become a certified Medical Technologist (ASCP) or Clinical Laboratory Scientist (ASCP) after completing a 12-month clinical rotation at an affiliated hospital.
- Be eligible to apply for graduate/professional training in nearly all medical fields.

Sem. Hours

MAJOR REQUIREMENTS60-61

BIOL 1000 The Discipline of Biology & Earth Science . . . 1
 BIOL 2512 Cell Biology3
 BIOL 3401 Human Anatomy3
 BIOL 3402 Human Physiology5
 BIOL 3413 Immunology3
 BIOL 3511 Genetics4
 BIOL 3611 Microbiology4
 BIOL 4002 Life Science Senior Seminar1
 BIOL 4311 Parasitology4
 BIOL 4514 Molecular Biology3
 BIOL 4516 Hematology / Virology3

BIOL 1110 Principles of Biology, 3 or
 BIOL 1112 Animal Biology, 4 3-4
 GCHEM 1131 General Chemistry I5
 CHEM 1132 General Chemistry II5
 CHEM 3341 Organic Chemistry I4
 CHEM 3421 Intermediate Biochemistry3
 GEMATH 1111 College Algebra3
 GEMATH 1300 Basic Statistics, 3 or
 PSY 4520 Stat. for Behavioral Sciences, 33

MEDICAL TECHNOLOGY CREDIT 30

Courses in various accredited medical technology programs may vary from hospital to hospital. Courses offered and the credit hours counted towards the B.S. are:

BIOL 4015 Clinical Immunohematology 4
 BIOL 4016 Clinical Urinalysis 2
 BIOL 4017 Clinical Microbiology 7
 BIOL 4018 Clinical Immunology 5
 BIOL 4019 Clinical Biochemistry 7
 BIOL 4020 Clinical Hematology 4
¹⁰BIOL 4021 Clinical Special Topics. 1

These courses are part of the Medical Technology functional major required by affiliation agreement for this program. They are not offered on campus or open to students in other programs. Credit for these courses is allowed for work taken at one of our affiliated hospitals in Kansas City (North Kansas City Hospital, Saint Luke's Hospital or K.U. in Kansas City, Kansas); in Springfield (Lester E. Cox Medical Center); in Joplin (Mercy Hospital); in Wichita (Wichita State University Medical Technology Program); in St. Louis (Mercy Hospital) or any fully accredited hospital medical technology training program which must be accredited by the American Medical Association Council on Medical Education. Admission and fees for the hospital portions of this program are the prerogative of the hospital and thus cannot be guaranteed by the University. Licensure to practice is dependent upon state regulations and professional examinations and thus cannot be guaranteed by the University or hospital. For additional information on this program and for entry into clinical programs, students are urged to see the program faculty advisor at their earliest convenience. Because of complexities of affiliation agreements and variations in clinical programs, all pertinent information cannot be presented in this catalog.

GENERAL EDUCATION REQUIREMENTS 32-35

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GEMATH 1111 College Algebra (3)
 GCHEM 1131 General Chemistry I (5)

MINIMUM TOTAL 122-126

¹⁰Competency 10 course

RADIOLOGIC TECHNOLOGY

Major, Bachelor of Science Degree
 (43-609)

1. For admission into an affiliated program, candidates for this degree must maintain a minimum grade-point average (each affiliate establishes their own minimum GPA) based upon courses listed in the program.
2. Candidates must have a minimum grade of C or better in listed program courses.
3. Affiliates may require some courses (like College Algebra and Anatomy and Physiology) be completed within a certain timeframe for consideration of clinical application. See the individual affiliates for specifics.
4. Affiliates require candidates successfully complete a minimum number of shadowing in a diagnostic area of Radiologic Technology. See the individual affiliates for specific shadowing requirements.
5. Candidates must meet the Skills Standards and other affiliate program

- requirements listed in their Prospective Student Information Guide for consideration of applications.
- Students must meet with a departmental advisor within enrolling in 30 credit hours to obtain specific course information, program and learning assessment goals, and the Prospective Student Information Guide. This helps ensure success in the program.
 - Students apply to JRCERT affiliated programs for admission. The affiliate selects students for the clinical internship program.

The graduate with a Radiologic Technology Major, Bachelor of Science Degree will use the knowledge and skills obtained in the program to:

- Communicate effectively in oral and written form (communicating).
- Collect, analyze and apply information to solve problems (managing information).
- Use various field and lab techniques and/or instrumentation with understanding, accuracy, precision, and safety (technology).
- Exhibit the ethical use of knowledge, materials and procedures that demonstrates an impact on society (valuing).
- Accurately integrate their knowledge of anatomy, positioning and radiographic techniques to demonstrate structures on an image or radiograph.
- Examine images for the purpose of evaluating technique, patient positioning and other pertinent technical qualities.
- Demonstrate mastery of Radiologic Technology by challenging the licensure exam of ARRT (American Registry of Radiologic Technology) after completing a clinical rotation at an affiliated hospital.

Courses in various accredited radiologic technology programs may vary from hospital to hospital.

These courses are part of the Radiologic Technology major required by affiliation agreement for this program. They are not offered on campus or open to students in other programs. Credit for these courses is allowed for work taken at Hillyard Technical Center in St. Joseph and of their associated clinical affiliates. The program is fully accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT).

Admission and fees for the hospital portions of this program are the prerogative of the hospital and thus cannot be guaranteed by the University. Licensure to practice is dependent upon state regulations and professional examinations and thus cannot be guaranteed by the University or hospital. For additional information on this program and for entry into clinical programs, students are urged to see the program faculty advisor at their earliest convenience. Because of complexities of affiliation agreements and variations in clinical programs, all pertinent information cannot be presented in this catalogue

Sem. Hours

MAJOR REQUIREMENTS 53

BIOL 1000	The Discipline of Biology & Earth Science . . .	1
BIOL 1110	Principles of Biology	3
BIOL 3211	Comparative Anatomy	4
BIOL 3215	Medical Terminology	2
BIOL 3401	Human Anatomy	3
BIOL 3402	Human Physiology	5
BIOL 3611	Microbiology	4
¹⁰ BIOL 4002	Life Science Senior Seminar	1
GE/CHEM 1131	General Chemistry I	5
GE/PHYS 1101	College Physics I	4
These courses are required by the hospital affiliates for admission consideration into the clinicals.		
GE/COMM 1000	Public Speaking	3
GE/ENGL 1020	Composition I	3
GE/ENGL 1030	Composition II	3
GE/MATH 1111	College Algebra	3
GE/PHIL 2300	Ethics	3
GE/PSY 1100	General Psychology	3
GE/SOC 1800	General Sociology	3

CLINICAL CREDITS 30

The last 2 years of clinicals: Different affiliates will assign different credit hours for a course, so courses will have a range. Affiliation agreements will have the specific courses that articulate to UCM so the registrar can assign grades once transcripts are received.

BIOL 4022	Clinical Education / Practice IV	4-6
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BIOL 4023	Radiographic Anatomy & Physiology	0-8
BIOL 4024	Radiographic Positioning & Procedure	2-4
BIOL 4025	Medical Imaging	2-10
BIOL 4026	Radiation Biology & Protection	2-3
BIOL 4027	Pathology I	2-3
BIOL 4028	Clinical Education / Practice V	2-6
BIOL 4029	A&P Cross Sectional Anatomy	0-3
BIOL 4030	Pathology II	0-3
BIOL 4031	Quality Assurance / Eq. Operations	2-3
BIOL 4032	Imaging Modalities	2-3
BIOL 4033	Radiography Curriculum Review / Seminar	2-3
BIOL 4034	Correctec	0-2
BIOL 4035	Clinical Education / Practice VI	2-6

RADIOLOGIC TECHNOLOGY SPECIAL CREDIT 30

30 hours of courses are transferred in by different affiliates. Programs will vary.

GENERAL EDUCATION REQUIREMENTS 14

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. Hours listed in (I) are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE/CHEM 1131	General Chemistry I	(5)
GE/COMM 1000	Public Speaking	(3)
GE/ENGL 1020	Composition I	(3)
GE/ENGL 1030	Composition II	(3)
GE/MATH 1111	College Algebra	(3)
GE/PHIL 2300	Ethics	(3)
GE/PHYS 1101	College Physics I	(4)
GE/PSY 1100	General Psychology	(3)
GE/SOC 1800	General Sociology	(3)

MINIMUM TOTAL 127

¹⁰Competency 10 course

MATHEMATICS AND COMPUTER SCIENCE

The Department of Mathematics and Computer Science
 W.C. Morris 222
 660-543-4930
 ucmo.edu/math-cs

Department of Mathematics and Computer Science Statement of Policy

A course with a grade lower than a C will not be allowed to fulfill a major or minor requirement in any program offered by the Department of Mathematics and Computer Science.

A student may enroll in a course offered by the Department of Mathematics and Computer Science only if a grade of C or better is earned in each of the course's prerequisites taken.

MATHEMATICS

ACTUARIAL SCIENCE AND STATISTICS

Major, Bachelor of Science Degree
 (43-576)

A graduate with a Bachelor of Science degree in Actuarial Science and Statistics will use the knowledge and skills obtained in the program to:

- Integrate and apply knowledge in the areas of mathematics, statistics, finance, and economics.
- Develop an aptitude for problem solving and apply mathematical, statistical, and financial models in the actuarial and other applied fields.
- Be able to summarize and describe data, conduct graphical analyses, and carry out basic formal statistical procedures.

- Be able to use a standard statistical software package to handle and manage data, to create graphical displays, and to perform statistical analysis.
- Apply statistical methods, various credibility theories, and simulation methods within the context of actuarial models.
- Be able to use regression analysis, time series, and Bayesian methods to analyze data and perform forecast.
- Be able to select appropriate experimental designs based on the need, to extract information from experimental data, and to perform analysis on collected experimental data.
- Develop necessary knowledge and skills in order to successfully pass the first 4 actuarial exams.
- Develop the knowledge and skills to adapt to a dynamic multidisciplinary technological environment through team work, ethical concerns, and effective communication.
- Address the needs of society with a sense of professionalism.
- Establish a career in actuarial science, statistics, or related fields and prepare for entry-level positions in business, industry, government, or public education.
- Prepare for graduate study in actuarial science, statistics, or related fields.

Sem. Hours

MAJOR REQUIREMENTS66-69

CORE	37
CEMATH 1151	Calculus & Analytic Geometry I 5
MATH 1152	Calculus & Analytic Geometry II 5
MATH 2153	Calculus & Analytic Geometry III 3
MATH 2410	Discrete Mathematics 3
MATH 3311	Introduction to Mathematical Statistics 3
MATH 4312	Probability Models 3
MATH 4321	Applied Statistics I 3
MATH 4322	Applied Statistics II 3
MATH 4530	Statistical Modeling 3
¹⁰ MATH 4645	Senior Projects in Actuarial Sci. & Statistics . . 3
CS 1100	Computer Programming I 3
Elect one of the two options 29-32	
Option 1 Actuarial Science - 32 hours	
MATH 4501	Actuarial Exam Review Problem Set I 1
MATH 4510	Mathematics of Finance 3
MATH 4511	Actuarial Exam Review Problem Set II 1
MATH 4520	Life Contingencies I 3
CS 3800	Applications Development with VB.NET 3
ECON 3010	Intermediate Macroeconomics 3
FIN 3861	Financial Management I 3
FIN 4803	Principles of Insurance 3
FIN 4817	Managing Financial Derivatives 3
Electives from the following 9	
MATH 3710	Linear Algebra 3
MATH 3151	Differential Equations 3
MATH 4323	Statistical Aspects of Experimental Design . . 3
MATH 4331	SAS Programming for Statistical Analysis . . 3
ECON 3030	Intermediate Microeconomics 3
FIN 3850	Principles of Finance 3
Option 2 Statistics - 29-30 hours	
MATH 3151	Differential Equations 3
MATH 3710	Linear Algebra 3
MATH 4323	Statistical Aspects of Experimental Design . . 3
MATH 4331	SAS Programming for Statistical Analysis . . . 3
CS 1110	Computer Programming II 3
Electives from the following 14-15	
MATH 4150	Advanced Calculus I 3
MATH 4501	Actuarial Exam Review-Problem Set I 1
MATH 4510	Mathematics of Finance 3
MATH 4511	Actuarial Exam Review-Problem Set II 1
MATH 4520	Life Contingencies I 3
CS 2300	Data Structures 3
CS 3800	Applications Development with VB.NET 3
CS 4600	Database Theory & Applications 3

GENERAL EDUCATION REQUIREMENTS 39

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

CEMATH 1300	Basic Statistics 3
CECON 1010	Principles of Macroeconomics . . (Option 1) 3

FREE ELECTIVES12-15

MINIMUM TOTAL 120

¹⁰Competency 10 course

MATHEMATICS

Major, Bachelor of Science Degree

(43-454)

A graduate with a Bachelor of Science degree in Mathematics will use the knowledge and skills obtained in the program to:

- Interpret and utilize precise mathematical language involving definitions, statements, and proofs.
- Examine, describe, and represent functions of various types using analysis techniques.
- Solve a variety of mathematics problems using analytic, numeric, and graphing techniques.
- Apply a variety of mathematics to model and interpret physical, natural, and social phenomena.
- Think logically, develop various algorithms and implement algorithms to solve mathematical problems.
- Recognize and understand the diversity of mathematics and its contributions to mathematically based disciplines.
- Communicate his/her mathematical thinking coherently, analyze and evaluate the mathematical thinking of others, and use the language of mathematics to express mathematical ideas precisely.
- Understand how mathematical ideas interconnect and build on one another to produce a coherent whole.
- Prepare for a career in the mathematical sciences (business, industry, government, education, etc.) or for graduate study in mathematics or a related field.

Sem. Hours

MAJOR REQUIREMENTS 49

CEMATH 1151	Calculus & Analytic Geometry I 5
MATH 1152	Calculus & Analytic Geometry II 5
MATH 2153	Calculus & Analytic Geometry III 3
MATH 2410	Discrete Mathematics 3
MATH 3151	Differential Equations 3
MATH 3311	Intro. Mathematical Statistics 3
MATH 3710	Linear Algebra 3
MATH 4150	Advanced Calculus I 3
¹⁰ MATH 4233	The Scientific, Historical, & Sociological Impact of Mathematics 3
MATH 4710	Algebraic Structures 3
MATH 4711	Introduction to Modern Algebra 3
CS 1100	Computer Programming I 3
Electives from the following 9	
MATH 2221	Foundations of Geometry 3
MATH 3221	College Geometry 3
MATH 4171	Functions of a Complex Variable 3
MATH 4211	Topology I 3
MATH 4312	Probability Models 3
MATH 4450	Introduction to Graph Theory 3
MATH 4510	Mathematics of Finance 3
MATH 4520	Life Contingencies I 3
MATH 4741	Intro. to Theory of Numbers 3
MATH 4910	Special Problems Mathematics 1-3
MATH 4912	Internship in Mathematical Sciences 3-8
CS 1110	Computer Programming II 3
CS 3800	Applications Development with VB.NET 3
CS 4420	System Simulation & Modeling 3

GENERAL EDUCATION REQUIREMENTS 39

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

MATH 1151	Calculus & Analytic Geometry I	(5)
FREE ELECTIVES		32
MINIMUM TOTAL		120

¹⁰Competency 10 course

MATHEMATICS

Major, Accelerated M.S. Degree
(43-607)

NOTE: At the completion of the 140-hour program, and not before, the student will earn both a BS and an MS degree in Mathematics.

A graduate with a combined Bachelor of Science and Masters of Science degree in Mathematics will use the knowledge and skills obtained in the program to:

- Interpret and utilize precise mathematical language involving definitions, statements, and proofs.
- Cultivate abilities for independent thinking.
- Examine, describe, and represent functions of various types using analysis techniques.
- Solve a variety of mathematics problems using analytic, numeric, and graphing techniques.
- Apply a variety of mathematics to model and interpret physical, natural and social phenomena.
- Think logically, develop various algorithms and implement algorithms to solve problems.
- Recognize and understand the diversity of mathematics and its contributions to mathematically based disciplines.
- Communicate his/her mathematical thinking coherently, analyze and evaluate the mathematical thinking of others, and use the language of mathematics to express mathematical ideas precisely.
- Understand how mathematical ideas interconnect and build on one another to produce a coherent whole.
- Work both individually and collaboratively in a specialized area of mathematical sciences.
- Prepare for a career in the mathematical sciences (business, industry, government, education, etc.) or for doctoral study in mathematics or a related field.

UCM students having completed at least 9 hours of mathematics courses above the 1000 level with a major GPA of at least 3.0 may consult with their department faculty advisor and complete a departmental application to declare the accelerated BS/MS major in mathematics. 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. Before completion of the program, a student must either pass a department comprehensive examination or write and successfully defend a thesis.

	Sem.	Hours
UNDERGRADUATE REQUIREMENTS		116
Required Courses		49
MATH 1151	Calculus & Analytic Geometry I	5
MATH 1152	Calculus & Analytic Geometry II	5
MATH 2153	Calculus & Analytic Geometry III	3
MATH 2410	Discrete Mathematics	3
MATH 3151	Differential Equations	3
MATH 3311	Intro. Mathematical Statistics	3
MATH 3710	Linear Algebra	3
MATH 4150	Advanced Calculus I	3
¹⁰ MATH 4233	The Scientific, Historical, & Sociological Impact of Mathematics	3
MATH 4710	Algebraic Structures	3
MATH 4711	Introduction to Modern Algebra	3
CS 1100	Computer Programming I	3
Electives from the following		9

MATH 3221	College Geometry	3
MATH 4171	Functions of a Complex Variable	3
MATH 4400	Combinatorics	3
MATH 4450	Introduction to Graph Theory	3
MATH 4741	Intro. to Theory of Numbers	3
MATH 4910	Special Problems Mathematics	3
MATH 4912	Internship in Mathematical Sciences	3-8

GENERAL EDUCATION REQUIREMENTS 39

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

MATH 1151	Calculus & Analytic Geometry I	(5)
UNDERGRADUATE FREE ELECTIVES		28

GRADUATE REQUIREMENTS 24

MATH 4211	Topology I	3
Elect from the following		3-6
MATH 5150	Advanced Calculus II	3
MATH 5180	Real Analysis	3
Elect from the following		3-6
MATH 5711	Advanced Group & Field Theory	3
MATH 5722	Advanced Ring & Module Theory	3
Elect from the following		9-15
(May not repeat courses taken for undergraduate credit. At most, 12 hours can be at or above the 5900 level.)		
MATH 4171	Functions of a Complex Variable	3
MATH 4400	Combinatorics	3
MATH 4450	Introduction to Graph Theory	3
MATH 4741	Intro. to Theory of Numbers	3
MATH 5211	Topology II	3
MATH 5900	Special Project in Mathematics	1-3
MATH 5911	Special Topics in Mathematics	1-3
MATH 5920	Intern. in Actuarial Science/Statistics	1-3
MATH 6912	Master's Project	6
MATH 6950	Thesis	6

MINIMUM TOTAL 140

- ¹⁰Competency 10 course
- A minimum of 24 hours of graduate credit is required.
 - A minimum of 12 semester hours of 5000 or 6000 level courses is required.
 - A maximum of 12 semester hours may be at or above the 5900 level
 - Either thesis or departmental comprehensive exam is required.
 - At the completion of this 140-hour program, and not before, the student will earn both a BS and an MS degree in Mathematics.

MATHEMATICS

Major, Bachelor of Science in Education Degree

Certification to teach mathematics in grades 9-12:
(41-459)

A graduate with a Bachelor of Science in Education degree in Mathematics will use the knowledge and skills obtained in the program to:

- Demonstrate and apply knowledge of major mathematical concepts, algorithms, procedures, connections, and applications within and among mathematical domains.
- Demonstrate the mathematical practices of problem solving, reasoning and proof, modeling, attending to precision, identifying elements of structure, generalizing, communicating, and making connections.
- Apply knowledge of curriculum standards for mathematics and their relationship to student learning within and across mathematical domains.
- Exhibit in-depth knowledge of adolescent development and behavior and use this knowledge to plan and create sequential learning opportunities grounded in mathematics education research.
- Provide instruction that supports the continual development of a productive disposition toward mathematics, conceptual understanding, procedural fluency, strategic competence, and application of major mathematics concepts.

- Demonstrate a commitment to lifelong learning and recognize that learning is often collaborative.
- Demonstrate a broad experiential base of knowledge, skills, effective approaches to mathematics teaching and learning and professional behaviors.

Sem. Hours

MAJOR REQUIREMENTS 40.5

GE	MATH	1151	Calculus & Analytic Geometry I	5
	MATH	1152	Calculus & Analytic Geometry II	5
	MATH	1850	Orientation Seminar	0.5
	MATH	2221	Foundations of Geometry	3
	MATH	2410	Discrete Mathematics	3
	MATH	2861	Adv. Perspectives on HS Math	3
	MATH	2862	Advanced Perspective on Secondary Geometry & Trigonometry	3
	MATH	3710	Linear Algebra	3
	MATH	3850	Strategies in Teaching Secondary Mathematics	3
¹⁰	MATH	4233	The Scientific, Historical, & Sociological Impact of Mathematics	3
	MATH	4710	Algebraic Structures	3
	MATH	4851	Prob. & Stat. for Mid/HS Math	3
	CS	1100	Computer Programming I	3

PROFESSIONAL EDUCATION REQUIREMENTS (page 90) 33

	EDFL	2100	Foundations of Education	2
GE	EDFL	2240	Educational Psychology	3
	EDFL	3500	Secondary Teaching & Behavioral Mgt.	3
	EDFL	4210	Teaching Reading in Secondary School	2
	EDFL	4300	Educational Assessment & Evaluation	2
	EDSP	2100	Education of the Exceptional Child	2
	FLDX	2150	Introductory Field Experience	1
	FLDX	3550	Practicum in Secondary Instruction	1
	MATH	4880	Issues and Methods of Teaching Secondary Mathematics	2
GE	PSY	4230	Psychology of Adolescence	3
Student Teaching Semester:				
	FLDX	4595	Student Teaching Secondary I	6
	FLDX	4468	Student Teaching Secondary II	6

GENERAL EDUCATION REQUIREMENTS 36

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE	EDFL	2240	Educational Psychology.	(3)
GE	HIST	1350	History of US to 1877, 3 or	
GE	HIST	1351	History US from 1877, 3	3
GE	MATH	1151	Calculus & Analytic Geometry I	(5)
GE	POLS	1510	American Government	3

FREE ELECTIVES 10.5

MINIMUM TOTAL 120

¹⁰Competency 10 course

MATHEMATICS

Minor, Bachelor of Science in Education Degree

Certification to teach mathematics in grades 5-9 with a middle school-junior high school major.

Elementary education majors 1-6 may use this as an area of concentration. (480)

A graduate with a Mathematics Minor for a Bachelor of Science in Education degree will use the knowledge and skills obtained in the program to:

- Teach mathematics to a diverse population of 5-9 learners by applying relevant learning theories, using a variety of teaching strategies, and incorporating materials, technology, and resources.
- Understand the appropriate uses of technology as tools for representing mathematical ideas, investigating patterns, testing conjectures, and representing data.

- Communicate mathematical thinking coherently, analyze and evaluate the mathematical thinking of others, and use the language of mathematics to express mathematical ideas precisely.
- Use representations to model and interpret physical, social, and mathematical phenomena.
- Understand how mathematical ideas interconnect and build on one another to produce a coherent whole and apply mathematics in contexts outside of mathematics.

Sem. Hours

MINOR REQUIREMENTS 22

*	MATH	2821	Elements of Algebra	3
*	MATH	2822	Elements of Geometry	3
	MATH	2823	Introduction to Infinite Processes	5
	MATH	3800	Introduction to Teaching Elementary & Middle School Mathematics	2
	MATH	3802	Concepts & Methods in Middle School Mathematics	3
	MATH	3840	Strategies in Teaching Middle School Mathematics	3
	MATH	4851	Prob & Stat for Mid/HS Math	3

*This course has a prerequisite not listed in the program; see specific class listing in the catalog for additional requirements.

MATHEMATICS

Minor for a Bachelor’s Degree

UCM does not confer teacher certification for this minor. Recommended for majors in business, economics, physical science, social sciences and related fields. (482)

Sem. Hours

MINOR REQUIREMENTS 25

GE	MATH	1151	Calculus & Analytic Geometry I	5
	MATH	1152	Calculus & Analytic Geometry II	5
	MATH	2410	Discrete Mathematics	3
	MATH	3710	Linear Algebra	3
Electives from the following or as approved by department 9				
	MATH	2153	Calc. & Analytic Geometry III	3
	MATH	3151	Differential Equations	3
	MATH	3311	Intro. to Math. Statistics	3
	MATH	4710	Algebraic Structures	3

COMPUTER SCIENCE

NOTE: Pending MDHE approval.

COMPUTER SCIENCE

Major, Bachelor of Science Degree

(43-281)

Program Educational Objectives – Within a few years of graduation, a graduate with a Bachelor of Science degree in Computer Science will use the knowledge and skills obtained in the program to:

- Demonstrate the ability to create solutions to computing problems in industry, government or academia appropriate to their levels of professional experience.
- Be capable of gauging the impact of computing on society, and possess knowledge of the ethical, social and professional responsibilities of their work.
- Have effective oral and written communication skills and demonstrate the ability to contribute effectively to the benefit of teams.
- Continue to update their professional knowledge and skills to adapt to innovation and change, and be successful in their professional work and/or graduate studies.

Additional, graduates with a Bachelor of Science degree in Computer Science will demonstrate the following specific student outcomes:

- An ability to apply knowledge of computing and mathematics appropriate to the discipline.
- An ability to analyze a problem, and identify and define the computing

requirements appropriate to its solution.

- An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- An ability to function effectively on teams to accomplish a common goal.
- An understanding of professional, ethical, legal, security and social issues and responsibilities.
- An ability to communicate effectively with a range of audiences.
- An ability to analyze the local and global impact of computing on individuals, organizations, and society.
- Recognition of the need for and an ability to engage in continuing professional development.
- An ability to use current techniques, skills, and tools necessary for computing practice.
- An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
- An ability to apply design and development principles in the construction of software systems of varying complexity.

In addition, students in Oprion 2 Computer Science will demonstrate the following extra student outcomes:

- An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
- An ability to apply design and development principles in the construction of software systems of varying complexity.

Sem. Hours

MAJOR REQUIREMENTS 69-72

CORE		45-47
CS	1100 Computer Programming I	3
CS	1110 Computer Programming II	3
CS	2200 Intro. to Computer Organization	3
CS	2300 Data Structures	3
CS	2400 Discrete Structures	3
CS	3100 Programming Languages	3
CS	3200 Computer Architecture	3
CS	3500 C & UNIX Environment	3
CS	4300 Algorithm Design & Analysis	3
CS	4500 Operating Systems	3
CS	4600 Database Theory & Applications	3
CS	4910 Software Engineering	3
¹⁰ CS	4920 Senior Project	3
GE MATH	1131 Applied Calculus, 3 or	
GE MATH	1151 Calculus & Analytic Geometry I, 5	3-5
GE MATH	1300 Basic Statistics, 3 or	
MATH	3311 Introduction to Math. Statistics, 3	3

Elect one of the following options 24-25

Option 1 Software Design - 24

Electives from the following 9-12

CS	3110 Appl. Prog. in C# & .NET	3
CS	3800 Applications Dev. with VB.NET	3
CS	4110 Mobile Applications Prog. with Android	3
CS	4120 Adv. Applications Prog. in Java	3

Electives from the following 12-15

CS	3120 Web Programming	3
CS	3810 Introduction to Game Design	3
CS	4000 Special Problems CS	3
CS	4020 Internship in CS	3
CS	4420 Systems Simulation & Modeling	3
CS	4610 Intro. to Cloud Computing	3
CS	4700 Artificial Intelligence	3
CS	4800 Computer Networking	3
CS	4810 Computer Graphics	3
CS	4820 Computer Security	3
GEOG	4220 Geographic Info. Systems I	3

Option 2 Computer Science - 25

MATH	1152 Calculus & Analytic Geometry II	5
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MATH	2153 Calculus & Analytic Geometry III, 3 or	
MATH	3710 Linear Algebra, 3 or	
MATH	4450 Introduction to Graph Theory, 3	3
GE BIOL	1005 Intro. to Environmental Science, 3 or	
BIOL	1110 Principles of Biology, 3 or	
GE BIOL	2010 Human Biology, 3 or	
GE BIOL	2510 Basic Genetics, 3 or	
GE CHEM	1103 Intro. to the Sciences: Chemistry, 3	
EASC	3010 Environmental Geology, 3 or	
EASC	3112 Astronomy, 3 or	
EASC	3114 Meteorology, 3 or	
GE PHYS	1103 Intro. to the Sciences: Physics, 3	3
GE BIOL	1007 Plants & Society, 4 and	
BIOL	1112 Animal Biology, 4	
or		
GE EASC	1004 Introduction to Geology, 4 and	
EASC	1114 Weather & Climate, 4	
or		
GE PHYS	1101 College Physics I, 4 and	
PHYS	1102 College Physics II, 4	8
Electives from the following		6
CS	3110 Applications Prog. in C# & .NET	3
CS	3120 Web Programming	3
CS	3800 Applications Dev. with VB.NET	3
CS	3810 Introduction to Game Design	3
CS	4020 Internship in CS	3
CS	4110 Mobile Applications Programming with Android	3
CS	4120 Adv. Applications Prog. in Java	3
CS	4420 Systems Simulation & Modeling	3
CS	4610 Intro. to Cloud Computing	3
CS	4700 Artificial Intelligence	3
CS	4800 Computer Networking	3
CS	4810 Computer Graphics	3
CS	4820 Computer Security	3
CS	4830 Game Development	3

Option 3 Computer Networking and Security - Applications Development - 24

Electives from the following 9-15

CS	3120 Web Programming	3
CS	4110 Mobile Applications Programming with Android	3
CS	4800 Computer Networking	3
CS	4820 Computer Security	3
NET	1060 Introduction to Networking Basics	3

Electives from the following 9-15

CS	3110 Applications Prog. in C# & .NET	3
CS	3800 Applications Dev. with VB.NET	3
CS	3810 Introduction to Game Design	3
CS	4000 Special Problems CS	3
CS	4020 Internship in CS	3
CS	4120 Adv. Applications Prog. in Java	3
CS	4420 Systems Simulation & Modeling	3
CS	4610 Intro. to Cloud Computing	3
CS	4700 Artificial Intelligence	3
CS	4810 Computer Graphics	3
CS	4830 Game Development	3
GEOG	4220 Geographic Information Systems I	3

Option 4 Game Development - 24

CS 3810 Introduction to Game Design 3

CS	4110 Mobile Applications Programming with Android	3
CS	4830 Game Development	3

Electives from the following 15

CS	3110 Applications Prog. in C# & .NET	3
CS	3120 Web Programming	3
CS	3800 Applications Dev. with VB.NET	3
CS	4000 Special Problems CS	3
CS	4020 Internship in CS	3
CS	4120 Adv. Applications Prog. in Java	3
CS	4420 Systems Simulation & Modeling	3
CS	4610 Intro. to Cloud Computing	3

CS	4700	Artificial Intelligence	3
CS	4800	Computer Networking	3
CS	4810	Computer Graphics	3
CS	4820	Computer Security	3
GEOG	4220	Geographic Info. Systems I	3

In Option 2 ~~GE~~MATH 1151 and MATH 3311 must be selected in the core.

GENERAL EDUCATION REQUIREMENTS 32-39

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE/COMM	1000	Public Speaking	3
GE/CS	1000	Computers and Modern Society	3
GE/CTE	3060	Technical Writing	3
GE/MATH	1131	Applied Calculus, 3 or	
GE/MATH	1151	Calculus & Analytic Geometry I, 5	(3-5)
GE/PHYS	1101	College Physics I (for Option 2), 4 or	
GE/BIOL	2010	Human Biology, 3 or	
GE/BIOL	2510	Basic Genetics (if chosen in Option 2), 3	(3-4)
FREE ELECTIVES			9-19
MINIMUM TOTAL			120

¹⁰Competency 10 course

COMPUTER SCIENCE

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (449)

Sem. Hours

MINOR REQUIREMENTS 18

CS	1100	Computer Programming I	3
CS	1110	Computer Programming II	3
CS	2300	Data Structures	3
Electives from the following **			9
At least one course must be upper-level (3000/4000).			
CS	2200	Intro. to Computer Organization	3
CS	2400	Discrete Structures	3
CS	3100	Programming Languages	3
CS	3110	Applications Prog. in C# & .NET	3
CS	3120	Web Programming	3
CS	3200	Computer Architecture	3
CS	3500	C & UNIX Environment	3
CS	3800	Applications Development with VB.NET	3
CS	3810	Introduction to Game Design	3
CS	4100	SAS Programming	3
CS	4110	Mobile Applications Programming with Android	3
CS	4420	System Simulation and Modeling	3
CS	4500	Operating Systems	3
CS	4600	Database Theory & Applications	3
CS	4700	Artificial Intelligence	3
CS	4820	Computer Security	3
CS	4830	Game Development	3

**Other elective options: Any valid Computer Science Major's electives, if the prerequisites are satisfied.

NURSING

The Department of Nursing
 University Health Center 106
 660-543-4775
 ucmo.edu/nursing

Department of Nursing Statement of Policy

Program

UCM's Department of Nursing offers a Bachelor of Science in Nursing. The nursing program is unique with its focus on rural nursing practice in smaller community and suburban hospitals in the junior year and urban nursing practice in the senior year.

Accreditation

The nursing program is fully approved by the Missouri State Board of Nursing and nationally accredited by the Commission on Collegiate Nursing Education. Contact numbers for the Nursing Department's accrediting agencies are: Missouri State Board (573) 751-0681; Commission on Collegiate Nursing Education (202) 887-6791. The Commission on Collegiate Nursing Education is located at One Dupont Circle, NW, Suite 530, Washington, DC 20036.

Student Learning Outcomes

The graduate with a Bachelor of Science degree in Nursing will use the knowledge, skills and attitudes obtained in the program to:

- Communicate in a manner that reflects that communication is a reciprocal process utilizing multiple modes in adapting language and communication strategies appropriate to professional role and setting
- Demonstrate intellectual skill based on the use of theories and principles guided by logic and sound judgment to allow for the provision of safe quality nursing care. Using reasoning, the student will be able 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 Nursing: *Scope and Standards of Practice* (2010) and *AN A Code of Ethics for Nurses* (2008)
- Organize, store, retrieve, evaluate, synthesize and annotate professionally related information from print, electronic and other sources to make clinical judgements and solve problems

Admission

Students entering UCM as freshmen or by transfer should indicate a pre-nursing major. Admission to the nursing program is conditional upon completion of a minimum of sixty semester hours, completion of all prerequisites necessary for admission to the first semester in the nursing program and the requirements for admission listed below. Admission to the nursing program involves competition between all eligible candidates. The Department of Nursing reserves the right to select among all qualified candidates. Students are selected in March for Fall semester nursing classes and in October for Spring. The necessary application is available online through NursingCAS and the student is responsible for submitting all hard copy materials to the nursing department.

Admission Criteria to the Undergraduate Nursing Program

1. Evidence of good moral character as determined by the Missouri State Board of Nursing in the Nurse Practice Act (1999) and by the American Nurses' Association Code of Ethics for Nurses (2008).
2. All nursing prerequisites must be completed at the time of admission. Computer literacy is required to be admitted to the nursing program.
3. A minimum of a 2.75 cumulative grade-point average is required at the time of application.
4. Minimum grade of C in all nursing prerequisites and nursing courses. A student receiving a grade lower than C in any nursing prerequisite may repeat that course only one time. If the course was taken at UCM, it must be repeated at UCM.
5. A student receiving more than one D and/or F in a course or courses with a nursing prefix will not be eligible for admission into the program.
6. Students will not be permitted to withdraw more than one time from a nursing prerequisite course without permission of the Department of Nursing.
7. Science prerequisites, as identified in NURSING Major, Bachelor of Science Degree, must have been taken within 10 years of requested semester admission.
8. Applicants for the nursing program must have completed the university GEA requirement (score 425) and the nursing department requirement for COMPASS Reading Exam (score 81).

9. Completion of additional requirements such as speech and hearing exam, assessment(s), etc. at the time of application deadline. The student is responsible for making sure all materials are submitted through NursingCAS and to the nursing department.
10. Nursing applications are completed online and a \$45 application fee applies. January 1 is the deadline for Fall Admission to the nursing program and July 1 is the deadline for Spring Admission to the nursing program. Additional forms are to be supplied to the nursing department by the application deadline.
11. Official transcripts-it is the students responsibility to request ALL official transcripts from other universities and colleges be submitted to the Admissions Department of the University to be posted as part of the student's official transcript by 5 p.m., December 31 for Fall admission and June 30 for Spring admission.
12. Required immunizations, a satisfactory criminal history background check (CBC), and a drug and alcohol screen must be complete and validated before the first day of clinical.
13. English as second language students (any student whose primary and secondary education was in a country where the native and official language was not English excluding native American citizens who attended American high schools in another country) must successfully complete the University requirements:
 - a. TOEFL - A score of 600 with a minimum of 55 on each sub-score.
 - b. Test of Spoken English - A minimum score of 250.
 - c. Test of Written English - A minimum score of 5.
 Any student not obtaining these scores can receive assistance in the English Department through the English Language Institute.
14. Additional considerations given to the following:
 - Academic history with patterns and trends indicating potential for academic success.
 - The functional abilities required to be successful in the nursing program, with reasonable accommodation. See Core Performance Standards.
 - Eligibility for licensure. Completion of the nursing program does not guarantee eligibility to take licensure examination. Refer to the Nurse Practice Act in the state in which you anticipate licensure. In Missouri refer to Sections 335.046 and 335.066 at ecodev.state.mo.us/pr/nursing.
 - Number of credit hours taken at The University of Central Missouri. Students will be categorized in two classifications for consideration for admission to the nursing program:
 - a. Students who have taken all nursing prerequisite courses at UCM; and
 - b. Students who have transferred credit for one or more nursing prerequisite course(s) from another institution.
 Nursing prerequisite courses are CHEM 1104, BIOL 3401, BIOL 3402, BIOL 3610, GEPSY 1100, GESOC 1800, D&N 3340, NUR 1700, and NUR 2700. Grade point averages are a determining factor in selection.
 - Additional assessments may be required.

Direct Admission Policy:

Upon admission to the University, a student who meets the following criteria may be given the opportunity of direct admission to the nursing program:

1. Admitted to UCM as freshmen with ACT 24 or higher and a high school CGPA of 3.0.
2. Declared nursing as a major.
3. Maintains a 3.5 GPA at UCM at the end of sophomore year.
4. Meet criteria published in the UCM undergraduate catalog and Department of Nursing Undergraduate Handbook as of the date of formal application.
 - Direct admission is limited to 40 students per semester based on admission date to UCM.
 - Students who are directly admitted have the same period of time to complete their degree program as other UCM students.
 - Direct Admission nursing students complete the nursing application by the set deadlines like all other nursing students.
 - A direct admission nursing student may lose his/her place in the nursing program if he/she falls below the specified standards.

- Students must complete all prerequisites successfully on their first attempt.

Student Veteran Policy:

For students who are U.S. Military Veterans, transfer credits for military courses, based on the recommendation of the American Council on Education (ACE)'s Guide to the Evaluation of Education Experiences in the Armed Services, will be considered when evaluating nursing prerequisites courses and student's overall GPA. Elective and/or direct course credit will be awarded based on ACE recommendations.

To be eligible for Student Veteran consideration for admission to the nursing program, the student must:

- Be admitted to the University of Central Missouri..
- Meet the criteria for admission to the undergraduate nursing program, allowing consideration of military transfer credits.
- Be honorably discharged from the U.S. armed forces.
- Submit acceptable forms of documentation such as:
 - AARTS Transcript (Army ACE Registry Transcript)
 - CCAF Transcript (Community College of the Air Force Transcript)
 - SMART Transcript (Sailor/Marine ACE Registry Transcript)

Special Expenses

1. Additional expenses for nursing majors include: uniforms, shoes, picture ID badge, watch with second hand, stethoscope, sphygmomanometer, health insurance, background check, vaccinations and blood tests, selected books and testing expenses. Testing experiences apply across the entire nursing program.
2. Nursing students must have access to transportation upon admission to the nursing program.
3. Nursing students must be certified in 2-person cardiopulmonary resuscitation for health care providers according to CNE orientation manual.
4. During the semester of anticipated graduation, licensing expenses, university graduation expenses, invitations, and more are additional expenses.

Kansas City Experience

Theory and clinical learning occur in the Kansas City area during the last year. This experience makes it possible for exposure to nursing practice in urban settings allowing students exposure to urban nursing practice in large medical centers and diversity with various communities.

Core Performance Standards for Admission and Progression

FUNCTIONAL ABILITY : STANDARD : SOME EXAMPLES OF NECESSARY ACTIVITIES (Not Inclusive)

Thinking skills: Critical thinking ability sufficient for sound clinical judgment. Identify cause-effect relationships in clinical situations, develop nursing care plans to integrate data from different sources and decide whether to initiate action or report, ability to interpret variations in vital signs, lab values, among other skills.

Interaction: Interpersonal abilities sufficient to interact with individuals, families, and groups from a variety of socio-economic and cultural backgrounds. Establish rapport with patients/clients and colleagues. Works as a team member.

Communication: Communication abilities sufficient for productive interaction with others in verbal and written form and other formats. Explain treatment procedures, initiate health teaching, document and interpret nursing actions and patient/client responses.

Motor skills: Gross and fine motor abilities sufficient to provide safe and effective nursing care. Move around work area and within confined spaces. Calibrate and use equipment, position clients, insert catheters, injections.

Sensory/Perceptual: Auditory/visual and tactile ability sufficient to monitor and assess health needs. Hear monitor alarm, (IV alarm, etc.), emergency signals, auscultatory sounds, cries for help.

Re-Application for Admission

A student re-applying for admission to the nursing program within 6 months to a year of the initial application is not required to obtain a new speech/hearing exam.

A student re-applying for admission to the nursing program over 18 months from the initial application is required to obtain a repeat speech/hearing exam, CBC and drug screen.

Students in non-compliance with these requirements will be referred to the Health Committee.

It is the responsibility of the applying student to provide documentation of compliance with these health requirements by the time of admission. Students not in compliance with these requirements will be referred to the Health Committee.

The Health Committee recommends that each student assume responsibility for personal health maintenance. An annual health assessment is strongly encouraged. Students are required to maintain insurance coverage for illness and accidents throughout their time in the program.

Requirements for Progression in the Nursing Program

1. Following admission to the nursing program, the student will follow the typical 4-year program for class enrollment. The courses in each semester are designed to be taken concurrently. Any changes in the courses taken must receive approval from the department chair prior to modifying enrollment.
2. A student must make a minimum grade of C in all nursing courses to progress in the nursing program. A student receiving a grade lower than C in any nursing course may repeat that course only one time.
3. A student who receives a D or F in a nursing course will be suspended from the program and is required to seek retention in order to repeat the course. The retention process is initiated by the student with the instructor whose course was failed. Completion and filing of the Request for Retention Form is the responsibility of the student. If a student is not retained within a year, that student may be required to repeat all courses within the major. Requirements for retention to the program are all contained in the current Undergraduate Student Handbook for the Department of Nursing.
4. A student receiving more than one D and/or F in a same course with a nursing prefix will not be allowed to apply or progress.
5. Students who withdraw from the nursing program must follow the Nursing Department's **Withdrawal Policy** contained herein and compete with other students for retention into the program.
6. Students must be successful in passing each course in a particular semester in the program to progress to the next semester.

Withdrawal Policy

Students within the program who withdraw from any nursing course are automatically suspended from the program and must follow the Nursing Department's Retention Policy in order to be retained. Students who withdraw from a nursing course and do not follow the requirements of the Nursing Department Withdrawal Policy as stated below will not be considered for retention.

Students who withdraw from any nursing course must compete with other students for retention to the program. Students may be retained only once to the nursing program based on the decision of the Admissions and Progression Committee.

Students who have been attending meetings of a nursing course and wish to withdraw should:

Clinical/practicum courses

1. Notify their instructor in writing of their desire to withdraw and their reason for this decision.
2. Meet with the chair.
3. Follow the University process for withdrawal (See UCM's University Calendar and Handbook or Catalog for information).

Theory courses

1. Notify their instructor in writing of their desire to withdraw and their reason for this decision.
2. Follow the university policy for withdrawal (See UCM's University Planner/Handbook or Catalog for information).

Students are not eligible to withdraw from a nursing clinical/practicum course when they have received their final grade from the instructor. Students who receive a final grade of D or F from the instructor and withdraw from the course will have their erroneous W changed to the appropriate failing grade by the Department of Nursing. Students who have not attended classes in the semester they wish to withdraw may withdraw from nursing courses by following the University Withdrawal Policy.

Transfer into the Nursing Major

Transfer of upper-level (3000/4000) nursing credit will be considered according to the following procedure:

1. Students will meet the General Education requirements as listed in the current University Catalog.
2. Only students in good standing at a nationally accredited baccalaureate nursing program are eligible for transfer. Credits will be evaluated and allowed in accordance with current UCM and Department of Nursing policy.
3. Evaluation of each transfer student will be made within the Department of Nursing on an individual basis.
4. Students will take a minimum of 30 semester hours of upper-level courses, with a minimum of 30 semester hours in the nursing major at UCM.
5. Students will apply for admission to the Department of Nursing and be subject to the regular program admission policy. In addition, the following evaluation process will be followed:
Credit for nursing courses will be based on a review of content, course description, syllabi, and catalog description,
 - a. If content is basically the same, the Nursing Department Transfer Committee may approve the course for nursing credit. The credit hours approved may be at the maximum credit hour allocation for the UCM nursing course.
 - b. If the content is fairly similar, the Nursing Department Transfer Committee may approve credit and in addition require NUR 4000, Special Projects (2-6 credits).
 - c. Only discrete courses in the content areas of research and ethics, pharmacology and observation and assessment will be considered for transfer as meeting the departmental required courses in these areas.
6. The student will have the chair or dean from the nursing school they are transferring from write a letter to the chair of UCM's Department of Nursing stating they are a student in good standing.
7. All prospective transfer students will be interviewed by the department Chairperson.

RN-BS in Nursing Option for Students Holding the R.N.

1. Credits from accredited nursing programs will be evaluated and allowed in accordance with current UCM policy.
2. Students will meet the General Education requirements as listed in the current University Catalog for nursing majors.
3. Evaluation of each R.N. student will be made within the Department of Nursing to determine placement in the program.
4. Students will take a minimum of 30 semester hours of upper-level (3000/4000) courses, with a minimum of 30 semester hours in the nursing major through UCM.
5. Students will apply for admission to the Department of Nursing and be subject to the regular program admission policy. In addition, the following criteria will be followed:
 - a. Applicants must have a current unencumbered RN license eligible to practice nursing.
 - b. Credit for non-college nursing courses may be applied to the nursing major upon successful performance on challenge examinations. A maximum of 30 semester hours of special credit may be awarded by challenge.

NURSING

**Generic Option, Bachelor of Science Degree
(43-133)**

		Sem. Hours
MAJOR REQUIREMENTS		78
	NUR	1700
		Introduction to Professional Nursing 1
NUR	2700	Professional Nursing Seminar 1
NUR	3200	Pathophysiology 4
NUR	3210	Pharmacological Therapies 3
NUR	3304	Assessment Across the Lifespan 2
NUR	3305	Assessment Across the Lifespan Lab 1
NUR	3410	Concepts of Nursing in Wellness 3
NUR	3411	Concepts of Nursing in Wellness Practicum . 2
NUR	3412	Technical Nursing Applications I. 1
NUR	3510	Concepts of Gerontic Nursing 2
NUR	3610	Concepts of Adult & Older Adult Nursing I 3

NUR	3611	Concepts of Adult & Older Adult Nursing I Practicum	4
NUR	3612	Technological Nursing Applications II	2
NUR	4012	Evidence-based Practice/Research	2
NUR	4013	Health Policy & Nursing Ethics	2
¹⁰ NUR	4111	Socio-Economic Factors Impacting Health	3
NUR	4410	Concepts of Maternal-Child Nursing	3
NUR	4411	Concepts of Maternal-Child Nursing Practicum	2
NUR	4510	Concepts of Adult & Older Adult Nursing II	3
NUR	4511	Concepts of Adult & Older Adult Nursing II Practicum	3
NUR	4512	Advanced Technology & Pharmacological Nursing Applications	2
NUR	4600	Concepts of Nursing Leadership in Management & Community/Mental Health	6
NUR	4601	Concepts of Nursing Leadership in Management & Community/Mental Health Practicum	6
NUR	4602	Synthesis of Nursing Concepts	1
BIOL	3401	Human Anatomy	3
BIOL	3402	Human Physiology	5
BIOL	3610	Basic Microbiology	3
D&N	3340	Nutrition	3
Elective from the following			2
NUR	2000	e-Health & Cyber Wellness	2
NUR	2020	Health: Women's Perspective	2
NUR	4020	Grief & Loss	2
NUR	4030	Human Sexuality	2
NUR	4040	Nursing Informatics	2
NUR	4210	Wellness for U.S. Vet. & Mil. Families	2
NUR	4405	Aging of Self & Others	2

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credits hours in general education. See pages 46-49 for full listing of requirements.

The following general education classes are required by this major:

GE CHEM	1104	Intro. to the Sciences: Chemistry	4
GE PSY	1100	General Psychology	3
GE SOC	1800	General Sociology	3

MINIMUM TOTAL 120

¹⁰Competency 10 course

RN-BS Nursing Option, Bachelor of Science Degree (43-288)

Sem. Hours

MAJOR REQUIREMENTS 44-48

NUR	4010	Health & Physical Assessment	3
NUR	4012	Evidence-Based Practice	2
NUR	4050	Professional Nur. Dimension & Perspectives	4
NUR	4052	RN-BS Advanced Concepts of Wellness	3
¹⁰ NUR	4111	Socio-Econ. Factors Impact Health	3
NUR	4200	Pathophysiology	3
NUR	4406	RN-BS Concepts of Community Health Nursing	3
NUR	4407	RN-BS Concepts of Community Health Nursing Practicum	2
NUR	4608	RN-BS Concepts of Nursing Leadership in Management	4
NUR	4609	RN-BS Concepts of Nursing Leadership in Management Practicum	1
BIOL	3401	Human Anatomy	3
BIOL	3402	Human Physiology	5
BIOL	3610	Basic Microbiology	3
D&N	3340	Nutrition	3
Nursing elective from the following			2-6
NUR	4020	Grief & Loss	2
NUR	4030	Human Sexuality	2
NUR	4040	Nursing Informatics	2
NUR	4210	Wellness for U.S. Vet. & Mil. Families	2

NUR	4405	Aging of Self & Others	2
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GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GE CHEM	1104	Intro. to the Sciences: Chemistry	4
GE PSY	1100	General Psychology	3
GE SOC	1800	General Sociology	3

Transfer Hours 30-34

MINIMUM TOTAL 120

¹⁰Competency 10 course

NUTRITION AND KINESIOLOGY

The Department of Nutrition and Kinesiology
Morrow 125
660-543-4256
ucmo.edu/nutrition

Athletic Training Policies

To learn more about the application/admission process, student retention, matriculation, and clinical experiences in the UCM Athletic Training Program (ATP) please visit the program's student handbook at ucmo.edu/at.

Learning Objectives and Program Status:

Students who successfully complete the Athletic Training program should be able to:

1. Demonstrate competence in the following areas: Risk Management and Injury Prevention, Acute Care of Injuries and Illnesses, Orthopedic Assessment and Diagnosis, Therapeutic Modalities/Conditioning and Rehabilitative Exercises, Medical Conditions and Disabilities, Pharmacology, Psychosocial Intervention and Referral, Professional Development, Nutritional Aspects of Injury and Illnesses, Evidence-Based Practice, and Health Care Administration. (NATA's Athletic Training Educational Competencies, 5th ed.).
2. Demonstrate clinical proficiency in the following areas: Risk Management and Injury Prevention, Acute Care of Injuries and Illnesses, Orthopedic Assessment and Diagnosis, Therapeutic Modalities/Conditioning and Rehabilitative Exercises, Medical Conditions and Disabilities, Pharmacology, Psychosocial Intervention and Referral, Professional Development, Nutritional Aspects of Injury and Illnesses, Evidence-Based Practice, and Health Care Administration. (NATA's Athletic Training Educational Competencies, 5th ed.).
3. The UCM ATP is nationally accredited by The Commission on the Accreditation of Athletic Training Education (CAATE).
4. Upon completion of the degree program, the student will be eligible to be endorsed as candidates for the Board of Certification, Inc. (BOC) examination for athletic training certification.

ATHLETIC TRAINING

Major, Bachelor of Science Degree (43-853)

Sem. Hours

MAJOR REQUIREMENTS 77

AT	1610	Introduction to Athletic Training	2
AT	1611	Introduction to Athletic Training Lab I	1
AT	1625	CPR/AED for Health Care Professionals	1
AT	1630	Foundations of Athletic Training	2
AT	1631	Foundations of Athletic Training Lab II	1
AT	1640	Medical Terminology	1
AT	1650	Responding to Emergencies for the Professional Rescuer	3
AT	2610	Orthopedic Assessment: Lower Extremity	2
AT	2611	Orthopedic Assessment: Lower Extremity Lab III	1

AT	2620	Orthopedic Assessment: Upper Extremity . . .	2
AT	2621	Orthopedic Assessment: Upper Extremity Lab IV	1
AT	2630	Therapeutic Modalities	2
AT	2631	Therapeutic Modalities Lab	1
AT	2640	Introduction to Therapeutic Exercise	2
AT	3620	Clinical Athletic Training Lab V	2
AT	3630	Therapeutic Rehabilitation	2
AT	3631	Therapeutic Rehabilitation Lab	1
AT	3640	Clinical Athletic Training Lab VI	2
AT	3650	Sport & Exercise Pharmacology	2
AT	4610	Clinical Athletic Training Lab VII	2
AT	4620	Clinical Athletic Training Lab VIII	2
AT	4630	Org. & Admin. of Athletic Training	3
¹⁰ AT	4640	Senior Seminar in Athletic Training	2
AT	4650	Human Disease Lab for Athletic Training	1
PE	4740	Legal Liability in Fitness/Wellness, Physical Education, Recreation, & Sports Settings	2
PE	1800	Functional Anatomy	3
PE	2800	Biomechanics	3
PE	2850	Found. of Exercise Physiology	3
PE	4340	Adapted Physical Education	3
PE	4830	Psychological Aspects of Phys. Ed.	2
PE	4850	Assessment & Eval. of Fitness/Wellness	3
HED	4300	Nutrition & Human Performance	3
HED	4370	Human Diseases	3
BIOL	3401	Human Anatomy	3
BIOL	3402	Human Physiology	5
PSY	4520	Statistics for Behavioral Sciences	3

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GE	CHEM	1104	Intro. to the Sciences: Chemistry	4
GE	CTE	3060	Technical Writing	3
GE	HED	1100	Personal Health	3
GE	LIS	1600	University Library and Research Skills	2
GE	MATH	1111	College Algebra	3
GE	PE	2472	Communicating Ideas on Sport	3
GE	PSY	1100	General Psychology	3

FREE ELECTIVE 1

MINIMUM TOTAL 120

¹⁰Competency 10 course

COACHING

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. Certification to coach is not required in the state of Missouri. (731)

Sem. Hours

MINOR REQUIREMENTS 22

PE	1800	Functional Anatomy	3
PE	2100	Foundations of Teaching PE	3
PE	4550	Introduction to Coaching	3
PE	4551	Fundamental Techniques in Coaching	3
PE	4560	Coaching and Sport Analysis	2
PE	4561	Coaching Practicum	1
AT	3610	Care & Prevention of Injuries	3
HED	4330	First Aid & CPR	1
PE	2900	Essentials of Personal Training, 3 or	
PE	3310	Analysis & Tchg. Physical Training, 3	3

DIETETICS

Major, Bachelor of Science Degree

Registration as a dietitian requires internship beyond Bachelor of Science degree. Fulfills the "Didactic Program in Dietetics Academic Requirements" of the Academy of Nutrition and Dietetics.(43-274)

The graduate with a Bachelor of Science degree in Dietetics will qualify to apply for a post-baccalaureate internship program. Student outcome goals:

- Utilize current knowledge, technology, and research to enhance the practice of nutrition and dietetics.
- Practice of nutrition care process utilizing knowledge and skills of nutritional assessment, diagnosis intervention, monitoring and evaluation.
- Acquire the knowledge and skills for the successful participation in a supervised dietetics program, employment related to foods and nutrition, or graduate study.
- Acquire the knowledge, skills, professionalism and ethical conduct needed to become a competent entry-level dietitian.
- Participate in activities that promote public awareness of nutrition and advance the profession of nutrition and dietetics.
- Application of principles of management and systems in the provision of services to individuals and organizations.

Sem. Hours

MAJOR REQUIREMENTS 59

Must have C or better for these courses.

FOOD	2320	Sanitation & Safety	1
FOOD	2322	Food Preparation	3
FOOD	3332	Quantity Food Prod. & Service	3
FOOD	3333	Food Systems Management	3
FOOD	3334	Adv. Food Systems Management	3
FOOD	4326	Experimental Foods	3
D&N	1300	Introduction to Dietetics	1
D&N	3340	Nutrition	3
D&N	3350	Community Nutrition	3
D&N	4340	Advanced Nutrition	3
D&N	4342	Medical Nutrition I	3
D&N	4343	Medical Nutrition II	3
D&N	4344	Nutrition Education & Counseling	2
¹⁰ D&N	4345	Senior Dietetics Seminar	3
BIOL	3401	Human Anatomy	3
BIOL	3402	Human Physiology	5
BIOL	3611	Microbiology	4
CHEM	1604	Elem. Organic & Biochemistry	4
ACCT	2100	Survey of Accounting	3
PSY	4520	Statistics for the Behavioral Sciences	3

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major. Must have C or better for these courses:

GE	BIOL	2510	Basic Genetics	3
GE	CHEM	1104	Intro. to the Sciences: Chemistry	4
GE	CTE	3060	Technical Writing	3
GE	MATH	1111	College Algebra	3
GE	PE	2472	Communicating Ideas on Sport	3
GE	PSY	1100	General Psychology	3
GE	SOC	1800	General Sociology	3

FREE ELECTIVES 19

MINIMUM TOTAL 120

¹⁰Competency 10 course

FITNESS/WELLNESS

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (841)

Sem. Hours

MINOR REQUIREMENTS 24

AT	3610	Care & Prevention of Injuries	3	
GE	PE	1206	Fitness for a Global Community	3
PE	1800	Functional Anatomy	3	
PE	2800	Biomechanics	3	
PE	2850	Foundations of Exercise Physiology	3	
PE	2900	Essentials of Personal Training	3	

PE	4850	Assessment & Evaluation of Fitness/Wellness	3
PE	4340	Adapted Physical Education, 3 or	
PE	4341	Physical Activity & Special Populations, 3 . . .	3

FOODS

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (124)

MINOR REQUIREMENTS 22

FOOD	2320	Sanitation & Safety	1
*FOOD	2322	Food Preparation	3
FOOD	3332	Quantity Food Prod. & Service	3
FOOD	3333	Food Systems Management	3
FOOD	3334	Adv. Food Systems Management	3
ACCT	2100	Survey of Accounting	3
AGRI	3415	Meat Science	3
*D&N	3340	Nutrition	3

*This course has a prerequisite not listed in the program; see specific class listing in the catalog for additional requirements.

HEALTH EDUCATION

Minor, Bachelor of Science in Education Degree

Recommendation for certification to teach health education for grades PK-9 requires 29 semester hours, 30 semester hours for teaching grades 9-12, and 32 semester hours for grades PK-12. The additional classes needed for certification are HED 4320, HED 4390, and health electives. Elementary Education Majors (grades 1-6) may use this as an area of concentration. See Director of Clinical Services and Certification for current requirements. (804)

The student will demonstrate a knowledge and/or competencies in the following areas:

- The structures, functions, and interrelationships of body systems as they apply to improving and maintaining healthful living.
- The principles of nutrition and their application to maintaining good health and preventing health problems.
- The use and abuse of legal and illegal drugs and their effects on the human body and society.
- The prevention and management of communicable and chronic diseases and related health care.
- The consumer health issues related to the marketing, selection, and use of health products and services.
- The attaining and maintaining good mental health and its effects on the health of the body.
- The dynamics of interpersonal relationships as related to family life, human sexuality, and growth and development.
- The process of behavior change that favorably affect personal health.
- The expanded model of the Comprehensive School Health Program and the interrelationships of its components.
- The basic concepts of injury prevention both intentional and unintentional, first aid, emergency systems, and the effects of trauma.

MINOR REQUIREMENTS 23

HED	1100	Personal Health	3
HED	1350	Responding to Emergencies	3
*HED	3360	Meth. in Secondary School Health	2
HED	4310	Drugs & Youth	3
PE	1800	Functional Anatomy	3
PE	2850	Found. of Exercise Physiology	3
HED	4230	Psy. of Adolescence	3
HED	1200	Applied Nutrition for Healthy Living, 3 or	
HED	4300	Nutrition & Human Performance, 3	3

*This course has a prerequisite not listed in the program; see specific class listing in the catalog for additional requirements.

HEALTH STUDIES

Major, Bachelor of Science Degree (43-330)

The graduate with a Bachelor of Science degree in Health Studies will:

- Apply fundamental health principles to rehabilitative centers; lifestyle issues that influence behavior, and wellness factors to solve orthopedic and/or epidemiologic problems affecting various communities, cultures and groups.
- Use discipline-appropriate equipment, research techniques and/or instruments with understanding, accuracy, precision, and safety in order to answer health-related questions.
- Use the language and concepts of health studies to communicate effectively in oral and written form.
- Exhibit the ethical use of health knowledge, materials, and procedures that demonstrates an impact on the individual as well as society.
- Achieve the background needed to enable the student to be competitive in Physical Therapy or Occupational Therapy graduate school.

MAJOR REQUIREMENTS 59-65

Major Core Requirements 29

Must have a C or better for these courses.

BIOL	3401	Human Anatomy	3
BIOL	3402	Human Physiology	5
BIOL	3215	Medical Terminology	3
HED	4370	Human Diseases	3
¹⁰ PE	4765	Internship	6
PSY	3220	Life-Span Development	3
PSY	4440	Abnormal Psychology	3
PSY	4520	Statistics for Behavioral Sciences	3

Each student must select one of the following options (See departmental faculty advisor) 30-36

Option 1 Pre-Physical Therapy/Pre-Occupational Therapy . 35-36

Must have a C or better for these courses.

AT	2630	Therapeutic Modalities	2
AT	2631	Therapeutic Modalities Lab	1
AT	2640	Intro. to Therapeutic Exercise	2
GBIOL	2510	Basic Genetics	3
HED	4330	First Aid & CPR	1
PE	1800	Functional Anatomy	3
PE	2800	Biomechanics	3
PE	2850	Foundations of Exercise Physiology	3
PE	4341	Physical Activity & Special Populations	3
PE	4850	Assessment & Evaluation of Fitness / Wellness	3
PE	4870	Clinical Exercise Physiology	3
PHYS	1102	College Physics II	4
CHEM	1604	Elem. Organic & Biochemistry, 4 or	
CHEM	1132	General Chemistry II, 5	4-5

Option 2 Community Health 30

Must have a C or better for these courses.

COMM	3010	Interpersonal Communication	3
D&N	3340	Nutrition	3
D&N	3350	Community Nutrition	3
HED	1010	Introduction to Health Studies	1
GHED	1100	Personal Health	3
HED	4310	Drugs & Youth	3
HED	4390	Community Health Education	3
HED	4400	Health Program Planning & Evaluation	3
NIUR	4030	Human Sexuality	2
SOC	4875	Medical Sociology	3
SOC	4894	Sociology of Aging	3

GENERAL EDUCATION REQUIREMENTS 42-44

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major: Must have a C or better for these courses.

WCTE	3060	Technical Writing	3
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GE/CHEM	1104	Intro. to the Sciences: Chemistry (Option 2)	.4
GE/CHEM	1131	General Chemistry I (Option 1)	.5
GE/MATH	1111	College Algebra	.3
GE/PE	2472	Communicating Ideas on Sport	.3
GE/PHIL	2300	Ethics	.3
GE/PHYS	1101	College Physics I (Option 1)	.4
GE/PSY	1100	General Psychology	.3
GE/SOC	1800	General Sociology	.3

FREE ELECTIVES Option 111-12

FREE ELECTIVES Option 2 19

MINIMUM TOTAL 120

¹⁰Competency 10 course

PHYSICAL EDUCATION

Major, Bachelor of Science Degree (43-817)

The graduate with a Bachelor of Science degree with a major in Physical Education and completion of Option 1 will:

- Demonstrate a level of content knowledge required to be an effective teacher.
- Utilize appropriate practices and broad fields of information when planning and implementing effective instructional strategies for diverse populations.
- Positively impact student engagement and learning through appropriate instructional practices in the management of time, people, space, equipment, transitions and behavior.
- Understand and use multiple assessment strategies to assess individual student needs and learning as well as program effectiveness.
- Continually reflect on and make instructional and program improvement decisions based on assessment data.

The graduate with a Bachelor of Science degree with a major in Physical Education and completion of Option 2 or 3 will:

- Demonstrate and integrate knowledge of the major concepts, empirical findings and current trends in the area of exercise science.
- Recognize and demonstrate critical thinking, including the scientific method to address problems related to the professions of physical activity, health promotion and health-care.
- Appropriately apply knowledge and skills acquired in the exercise science curriculum to personal, social, and organizational issues.
- Identify and apply appropriate exercise science language through effective speaking, reading, and writing.
- Recognize and apply empirical evidence while behaving legally and ethically in research, clinic, professional and applied settings.
- Recognize individual differences, respecting the role these differences play in intercultural and international diversity. Describe the interaction of these factors in the field of exercise and health-care.
- Review authentic occupational, career, and advanced educational opportunities appropriate to the discipline and develop a feasible plan to pursue those opportunities.

Sem. Hours

MAJOR REQUIREMENTS58-65

Must have C or better for these courses.

MAJOR CORE REQUIREMENTS17

*AT	3610	Care & Prevention of Injuries	.3
*PE	1800	Functional Anatomy	.3
*PE	2800	Biomechanics	.3
*PE	2850	Foundations of Exercise Physiology	.3
*PE	4340	Adapted Physical Education	.3
*PE	4740	Legal Liability in Fitness/Wellness, Physical Education, Recreation, & Sports Settings	.2

Students select from one of the following options (see departmental faculty advisor)41-48

Option 1

Students must maintain a 3.0 GPA in all PE prefix courses and an overall

2.75 GPA.

Elementary - Secondary certification K-12	. . . . .	41
PE	1100 PE Orientation, History & Philosophy	. . . . . 2
PE	1450 Growth & Dev. in Elem. PE	. . . . . 3
PE	2100 Foundations of Teaching PE	. . . . . 3
PE	2450 Motor Learning & Control	. . . . . 3
PE	3310 A&T of Physical Training	. . . . . 3
PE	3320 A&T of Elementary Skills	. . . . . 3
PE	3330 A&T of Secondary Skills	. . . . . 3
PE	3340 A&T of Lifetime Activities	. . . . . 3
PE	3500 Tchg & Management in PreK-12 PE	. . . . . 3
PE	3550 Practicum in PreK-12 PE	. . . . . 1
PE	4450 Techniques of Teaching PE Activities in Elem. School	. . . . . 3
PE	4460 Techniques of Teaching PE Activities in Mid/High School	. . . . . 3
PE	4760 Curriculum & Assessment in Phys. Ed.	. . . . . 4
PE	4830 Psychological Aspects of PE	. . . . . 2
PE	4840 Social Aspects of Phys. Activity	. . . . . 2

Option 2

Fitness/Wellness I (Corporate Fitness)	. . . . .	45
PE	1101 Introduction to Exercise Science	. . . . . 3
PE	2900 Essentials of Personal Training	. . . . . 3
PE	4341 Physical Activity & Special Populations	. . . . . 3
¹⁰ PE	4765 Internship	. . . . . 6
PE	4850 Assessment & Evaluation of Fitness / Wellness	. . . . . 3
PE	4860 Fitness Program & Implementation	. . . . . 3
PE	4870 Clinical Exercise Physiology	. . . . . 3
HED	1350 Responding to Emergencies	. . . . . 3
HED	4300 Nutrition & Human Performance	. . . . . 3
ACCT	2101 Principles of Financial Accounting	. . . . . 3
BLAW	2720 Legal Environment of Business	. . . . . 3
MKT	3405 Marketing Policy	. . . . . 3
MKT	3420 Principles of Advertising	. . . . . 3
MKT	3430 Professional Sales	. . . . . 3

Option 3

Fitness/Wellness II (Exercise Science)	. . . . .	48
PE	1101 Introduction to Exercise Science	. . . . . 3
PE	2900 Essentials of Personal Training	. . . . . 3
PE	4341 Physical Activity & Special Populations	. . . . . 3
¹⁰ PE	4765 Internship	. . . . . 6
PE	4850 Assessment & Evaluation of Fitness / Wellness	. . . . . 3
PE	4860 Fitness Program & Implementation	. . . . . 3
PE	4870 Clinical Exercise Physiology	. . . . . 3
BIOL	3401 Human Anatomy	. . . . . 3
BIOL	3402 Human Physiology	. . . . . 5
D&N	3340 Nutrition	. . . . . 3
HED	1350 Responding to Emergencies	. . . . . 3
HED	4300 Nutrition & Human Performance	. . . . . 3
PSY	4520 Statistics for Behavioral Sciences	. . . . . 3
CHEM	1604 Elementary Organic & Biochemistry 4, or	
GE/PHYS	1104 Intro to Sciences: Physics 4,	. . . . . 4

PROFESSIONAL EDUCATION REQUIREMENTS Option 1 25

Must have C or better for these courses.

EDFL	2100	Foundations of Education	. . . . . 2
GE/EDFL	2240	Educational Psychology	. . . . . 3
EDFL	4210	Teaching Reading in Secondary School	. . . . . 2
EDSP	2100	Education of the Exceptional Child	. . . . . 2
FLDX	2150	Introductory Field Experience	. . . . . 1
PE	3500	Tchg & Management in PreK-12 PE	. . . . . (3)
PE	3550	Practicum in Secondary Instruction	. . . . . (1)
GE/PSY	4230	Psychology of Adolescence	. . . . . 3

Student Teaching semester

FLDX	4495	Student Teaching Elementary I	. . . . . 5
¹⁰ FLDX	4468	Student Teaching Secondary II	. . . . . 4
PE	4880	Methods of Teaching Physical Education	. . . . . 2
PE	4885	Secondary Field Experience II	. . . . . 1

GENERAL EDUCATION REQUIREMENTS 39-42

All students must complete a minimum of 42 credit hours in general

education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

Must have C or better for these courses:

Required general education core

GE MATH	1111	College Algebra	3
GE PE	1206	Fitness for a Global Community	3
GE PE	2472	Communicating Ideas on Sport	3

Additional required general education courses for Option 1, Elementary – Secondary Certification K-12

GE EDFL	2240	Educational Psychology	3
GE POLS	1510	American Government	3
GE HIST	1350	History of US to 1877, 3 or	
GE HIST	1351	History US from 1877, 3	3

Additional required general education courses for Option 2, Fitness/Wellness I (Corporate Fitness)

GE CTE	3060	Technical Writing	3
GE PSY	1100	General Psychology	3

Additional required general education courses for Option 3, Fitness/Wellness II (Exercise Science)

GE CHEM	1104	Intro to the Sciences: Chemistry	4
GE CTE	3060	Technical Writing	3
GE PHYS	1104	Intro to Sciences: Physics (if chosen)	4
GE PSY	1100	General Psychology	3

FREE ELECTIVES:

Option 2	16
Option 3	13-16

MINIMUM TOTAL 120-122

¹⁰Competency 10 course

SPORT MANAGEMENT

Major, Bachelor of Science Degree (43-612)

The graduate with a Bachelor of Science degree in Sport Management will:

- Develop a foundation for a professional philosophy based on both historical and current knowledge of sport management.
- Solve science-oriented problems utilizing appropriate concepts, principles, theories and technology in the field of sport management.
- Gain an awareness of managing sport and recreational programs for diverse populations.
- Utilize diverse communication, interaction and facilitation techniques toward the implementation of a successful leadership style in sport organizations.
- Demonstrate knowledge and use of legal concepts applied toward sport management, including implementation of risk management plans.
- Engage in practical work experiences in professional settings reflecting professional practices in the sport management arena.

Sem. Hours

MAJOR REQUIREMENTS 53

SM	3100	Introduction to Sport Management	3
SM	3300	Leisure, Sport and Tourism	3
SM	4200	Applied Sport Marketing	3
SM	4210	Sport and Media	3
SM	4220	Sport Sponsorship and Retention	3
SM	4300	Recreational Sports Management	3
SM	4400	Sport Communication	3
SM	4500	Sport Leadership	3
SM	4700	Sport Facility Management	3
SM	4720	Managing Sporting Events	3
SM	4900	Senior Seminar in Sport Management	3
¹⁰ SM	4980	Internship	6
PE	4740	Legal Liability in Fitness/Wellness, Physical Education, Recreation, & Sports Settings	2
ECON	1011	Principles of Microeconomics	3
ECON	4054	Sport Economics	3

MGT	3315	Management of Organizations	3
MKT	3405	Marketing Policy	3

GENERAL EDUCATION REQUIREMENTS 43

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GE CIS	1600	Business Information Management	3
GE ECON	1010	Principles of Macroeconomics	3
GE PE	1206	Fitness for a Global Community	3
GE PE	2472	Communicating Ideas on Sport	3

FREE ELECTIVES (Contact SM faculty advisor for guidance) 24

MINIMUM TOTAL 120

¹⁰Competency 10 course

SPORT NUTRITION

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (699)

The Sports Nutrition minor explores basic exercise physiology, assessment/evaluation and an in depth analysis of current nutritional principles. Skills acquired in this minor allow the graduate to effectively evaluate nutritional claims, perform basic nutritional assessment, and give sound nutritional advice based on evidenced based practice.

Sem. Hours

MINOR REQUIREMENTS 20-21

*D&N	3340	Nutrition	3
*D&N	4340	Advanced Nutrition	3
D&N	4346	Dietary Supplements	3
*HED	4300	Nutrition & Human Performance	3
*PE	2850	Foundations of Exercise Physiology	3
PE	4850	Assessment & Evaluation of Fitness / Wellness	3
*D&N	4344	Nutrition Education & Counseling, 2 or	
PE	4860	Fitness Program & Implementation, 3	2-3

*This course has a prerequisite not listed in the program; see specific class listing in the catalog for additional requirements.

PSYCHOLOGICAL SCIENCE

The Department of Psychological Science

Lovinger 1111
660-543-4185
ucmo.edu/psychology

NOTE: Pending MDHE approval.

Applied Behavior Analysis (ABA)

Certificate
(10-884)

After completion of the certificate courses the student will be able to:

- Describe the critical characteristics of applied behavior analysis (ABA).
- Describe and apply research methods used in ABA.
- Describe and apply principles of behavior used to address socially significant problems.
- Describe and apply behavioral assessment procedures, including functional assessment of behavior.
- Graph, visually analyze and interpret behavioral data.
- Describe ethical issues related to ABA and possible solutions to ethical dilemmas.

Admission Requirements

To be considered for admission to the UCM undergraduate Certificate in Applied Behavior Analysis (ABA), the student must have a minimum cumulative grade point average (GPA) of 2.75 at the university level, including one college-level English composition course and General

psychology course, each with a grade of B or better. Non-degree and students already admitted to a Bachelor of Science or Bachelor of Arts degree may apply for receipt of the Certificate in Applied Behavior Analysis.

To remain a candidate for the Certificate in ABA a grade of "B" or higher must be obtained for all core and elective classes. The practicum must be completed with a "Satisfactory" grade.

All required courses must be taken at UCM. A maximum of three units of transfer credit for elective courses only may be applied toward the Certificate in Applied Behavior Analysis.

Courses taken toward the undergraduate certificate program may be applied to a UCM Bachelor of Science or Arts degree as a general elective or major elective course.

A maximum of nine units of core course work from the undergraduate certificate may be used to fulfill major course requirements for a UCM Bachelor of Science or Arts degree.

Application Process

To apply for admission for the Certificate in Applied Behavior Analysis, the following items must be submitted:

1. Application for the Certificate in ABA.
2. Supplemental Application for the Certificate ABA.
3. Updated curriculum vita.
4. Statement of Academic and Professional Goals: a 500-word statement summarizing how your professional and educational goals are consistent with the objectives of the Certificate in ABA.

Required Courses	21
GEPSY 1100 General Psychology	3
PSY 2130 Learning	3
PSY 4010 Introduction to Applied Behavior Analysis	3
PSY 4200 Applied Behavior Analysis with Children & Youth	3
PSY 4730 Cognitive-Behavioral Intervention	3
PSY 4750 Field Exp. in Applied Behavior Analysis	3
Elective from the following	3
PSY 2220 Child Psychology	3
PSY 3220 Lifespan Development	3
PSY 4140 Psychology of Human Sexuality	3
GEPSY 4230 Psychology of Adolescence	3
PSY 4240 Psychology of Aging	3
PSY 4440 Abnormal Psychology	3
PSY 4540 Intro. to Counseling Psychology	3

PSY 1000 Orientation to Psychology	1
GEPSY 1100 General Psychology	3
PSY 2130 Learning	3
PSY 3220 Lifespan Development	3
PSY 3340 Social Psychology	3
¹⁰ PSY 4110 Systems of Psychology	3
PSY 4310 Theories of Personality	3
PSY 4440 Abnormal Psychology	3
Select 1 group of classes from the following choices	9-12
Choice 1, 9 hrs	
PSY 2100 Research Methods	3
PSY 3120 Brain & Behavior	3
PSY 4520 Statistics for Behavioral Sciences	3
Choice 2, 10 hrs	
PSY 2100 Research Methods	3
PSY 3130 Physiological Psychology	4
PSY 4520 Statistics for the Behavioral Sciences	3
Choice 3, 11 hrs	
PSY 2110 Research Design and Analysis I	4
PSY 2120 Research Design and Analysis II	4
PSY 3120 Brain & Behavior	3
Choice 4 (Recommended for students planning to attend graduate school), 12 hrs	
PSY 2110 Research Design and Analysis I	4
PSY 2120 Research Design and Analysis II	4
PSY 3130 Physiological Psychology	4

GENERAL EDUCATION REQUIREMENTS 36

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GEPSY 1100 General Psychology	(3)
GE Modern Language	(3)

MODERN LANGUAGE REQUIREMENT 6-9

Refer to Bachelor's Degree Requirements section for fulfillment options.

UPPER-LEVEL (3000/4000) FREE ELECTIVES 12

FREE ELECTIVES 29-35

MINIMUM TOTAL 120

¹⁰Competency 10 course

PSYCHOLOGY

Major, Bachelor of Arts Degree (42-746)

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

- Demonstrate and integrate knowledge of the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
- Understand and apply basic research methods in psychology, including research design, data analysis, and interpretation.
- Value and use critical and creative thinking, including the scientific method, to address problems related to behavior and mental processes.
- Appropriately apply knowledge and skills acquired in the psychology curriculum to personal, social, and organizational issues.
- Value and apply empirical evidence, cope with ambiguity, and behave legally and ethically in research and applied settings.
- Understand and apply the language of the science of psychology, through effective speaking, reading and writing.
- Demonstrate the ability to acquire and disseminate information and use computers and other technology for a variety of purposes.
- Recognize, understand, and respect individual differences and the complexity of sociocultural and international diversity. Demonstrate knowledge about how these factors affect applied and scholarly work.
- Demonstrate knowledge about realistic occupational, career, and advanced educational opportunities appropriate to the discipline and develop a feasible plan to pursue those opportunities.

Sem. Hours

MAJOR REQUIREMENTS 31-34

PSYCHOLOGY

Major, Bachelor of Science Degree (43-747)

The graduate with a Bachelor of Science degree in Psychology will use the knowledge and skills obtained in the program to:

- Demonstrate and integrate knowledge of the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
- Understand and apply basic research methods in psychology, including research design, data analysis, and interpretation.
- Value and use critical and creative thinking, including the scientific method, to address problems related to behavior and mental processes.
- Appropriately apply knowledge and skills acquired in the psychology curriculum to personal, social, and organizational issues.
- Value and apply empirical evidence, cope with ambiguity, and behave legally and ethically in research and applied settings.
- Understand and apply the language of the science of psychology, through effective speaking, reading and writing.
- Demonstrate the ability to acquire and disseminate information and use computers and other technology for a variety of purposes.
- Recognize, understand, and respect individual differences and the complexity of sociocultural and international diversity. Demonstrate knowledge about how these factors affect applied and scholarly work.
- Demonstrate knowledge about realistic occupational, career, and advanced educational opportunities appropriate to the discipline and develop a feasible plan to pursue those opportunities.

Sem. Hours

MAJOR REQUIREMENTS 43

PSY 1000	Orientation to Psychology	1
GEPSY 1100	General Psychology	3
PSY 2110	Research Design & Analysis I	4
PSY 2120	Research Design & Analysis II	4
PSY 2130	Learning	3
PSY 3130	Physiological Psychology	4
PSY 3220	Lifespan Development	3
PSY 3340	Social Psychology	3
¹⁰ PSY 4110	Systems of Psychology	3
PSY 4310	Theories of Personality	3
PSY 4440	Abnormal Psychology	3
Electives from the following		9
PSY 4010	Introduction to Applied Behavior Analysis	3
PSY 4050	Positive Psychology	3
PSY 4130	Sensation & Perception	3
PSY 4140	Psychology of Human Sexuality	3
PSY 4150	Cognitive Psychology	3
PSY 4200	Applied Behavior Analysis with Children & Youth	3
GEPSY 4230	Psychology of Adolescence	3
PSY 4240	Psychology of Aging	3
PSY 4320	Psychology of Women	3
PSY 4330	Multicultural Psychology	3
PSY 4500	Intro. to Psy. Measurement	3
PSY 4540	Introduction to Counseling Psychology	3
PSY 4600	Industrial/Organizational Psychology	3
PSY 4730	Cognitive-Behavioral Intervention	3
PSY 4740	Assessment & Intervention with Law Offenders	3
PSY 4750	Field Experience in Applied Behavior Analysis	3
PSY 4000	Special Projects in Psychology	1-3
PSY 4180	Seminar in Psychology	1-3

GENERAL EDUCATION REQUIREMENTS 36-39

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GEPSY 1100	General Psychology (3)
GEPSY 4230	Psychology of Adolescence (if chosen) (3)

FREE ELECTIVES 38-41**MINIMUM TOTAL 120**¹⁰Competency 10 course**PSYCHOLOGY****Minor for a Bachelor's Degree**

UCM does not confer teacher certification for this minor. (748)

Sem. Hours

MINOR REQUIREMENTS 21

GEPSY 1100	General Psychology	3
Electives in Psychology**		18

**Must include at least one upper-level (3000/4000) course to meet graduation requirements.

SCHOOL OF ENVIRONMENTAL, PHYSICAL AND APPLIED SCIENCES

The School of Environmental, Physical and Applied
Sciences

Humphreys 225
660-543-4626
ucmo.edu/sepas

BIOCHEMISTRY**BIOCHEMISTRY**

Major, Bachelor of Science Degree
(43-295)

The graduate with a Bachelor of Science degree in Biochemistry will use the knowledge and skills obtained in the program to:

- Collect, analyze and apply information to solve problems (managing information & higher-order thinking).
- Understand how to safely utilize laboratory instruments and employ the appropriate laboratory techniques to investigate chemical systems (technology).
- Understand chemical concepts and use evidence to draw conclusions (higher-order thinking).
- Use the language and concepts of chemistry to communicate effectively in oral and written form (communicating).
- Function in independent and collaborative settings to solve problems (interacting).
- Ethically and with integrity, apply chemical knowledge, materials, and skills that impact society (valuing).
- Be prepared for post-baccalaureate education and employment in the public and private sectors.

Sem. Hours

MAJOR REQUIREMENTS 69-71

GE/CHEM 1131	General Chemistry I	5
CHEM 1132	General Chemistry II	5
CHEM 3212	Quantitative Analysis	3
CHEM 3341	Organic Chemistry I	4
CHEM 3342	Organic Chemistry II	4
CHEM 3421	Intermediate Biochemistry	3
¹⁰ CHEM 3920	Communication Skills in Chem.	2
CHEM 4421	Advanced Biochemistry	3
CHEM 4431	Biochemistry Laboratory	2
CHEM 4531	Physical Chemistry: Thermodynamics & Kinetics	4
BIOL 1110	Principles of Biology	3
BIOL 2512	Cell Biology	3
BIOL 3511	Genetics	4
BIOL 4514	Molecular Biology	3
BIOL 4515	Molecular Technology Lab	2
GE/MATH 1151	Calculus & Analytic Geometry I	5
Electives from the following		8-10
GE/PHYS 1101	College Physics I, 4 and PHYS 1102 College Physics II, 4	8
OR		
PHYS 2123	University Physics I, 4 and PHYS 1123 Elementary Physics Lab I, 1 and PHYS 2124 University Physics II, 4 and PHYS 1124 Elementary Physics Lab II, 1	10
OR		
GE/PHYS 2121	University Physics I, 5 and PHYS 2122 University Physics II, 5	10
Electives from the following (3 hours must be in CHEM).		6
CHEM 3111	Intermed Inorganic Chemistry	4
CHEM 4231	Instrumental Analysis	4
CHEM 4313	Advanced Organic Chemistry	3
CHEM 4532	Physical Chemistry: Quantum Mechanics & Spectroscopy	4
CHEM 4910	Research in Chemistry	2-4
BIOL 3611	Microbiology	4
BIOL 4011	Special Problems In Biology	2-4
BIOL 4311	Parasitology	4
BIOL 4516	Hematology / Virology, 3 and BIOL 4517 Serology Laboratory, 1	4

GENERAL EDUCATION REQUIREMENTS 32-35

All students must complete a minimum of 42 credit hours in general

education. See pages 46-49 for full listing of requirements. Hours listed in (I) are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE MATH	1151	Calculus & Analytic Geometry I	..... (5)
GE CHEM	1131	General Chemistry I	..... (5)
GE PHYS	1101	College Physics I, 4 or	
GE PHYS	2121	University Physics I, 5 (if chosen)	..... (4-5)
FREE ELECTIVES			.....14-19
MINIMUM TOTAL			..... 120

¹⁰Competency 10 course

CHEMISTRY

Chemistry Statement of Policy

All junior and senior chemistry majors are required to attend oral presentations by students who are enrolled in CHEM 4900 and CHEM 4910. Prior to student teaching, all Bachelor of Science in Education Chemistry majors are required to serve as a lab assistant or lab preparation assistant for one semester in partial fulfillment of CHEM 4900.

NOTE: Students must attend the first scheduled lab period to avoid being dropped from the lab to accommodate students on the wait list.

ACS Approval

The Chemistry programs are American Chemical Society (ACS) approved baccalaureate programs. The American Chemical Society is located at 1155 Sixteenth St, N.W., Washington, DC 20036; phone 800-227-5558; webpage acs.org.

CHEMISTRY

Major, Bachelor of Science Degree (43-393)

The graduate with a Bachelor of Science degree in Chemistry will use the knowledge and skills obtained in the program to:

- Collect, analyze and apply information to solve problems (managing information & higher-order thinking).
- Understand how to safely utilize laboratory instruments and employ the appropriate laboratory techniques to investigate chemical systems (technology).
- Understand chemical concepts and use evidence to draw conclusions (higher-order thinking).
- Use the language and concepts of chemistry to communicate effectively in oral and written form (communicating).
- Function in independent and collaborative settings to solve problems (interacting).
- Ethically and with integrity, apply chemical knowledge, materials, and skills that impact society (valuing).
- Be prepared for post-baccalaureate education and employment in the public and private sectors.

Sem. Hours

MAJOR REQUIREMENTS **70-79**

CORE **64**

GE CHEM	1131	General Chemistry I	..... 5
CHEM	1132	General Chemistry II	..... 5
CHEM	3111	Intermediate Inorganic Chemistry	..... 4
CHEM	3212	Quantitative Analysis	..... 3
CHEM	3341	Organic Chemistry I	..... 4
CHEM	3342	Organic Chemistry II	..... 4
CHEM	3421	Intermediate Biochemistry	..... 3
¹⁰ CHEM	3920	Communication Skills in Chemistry	..... 2
CHEM	4231	Instrumental Analysis	..... 4
CHEM	4531	Physical Chemistry: Thermodynamics & Kinetics	..... 4
CHEM	4532	Physical Chemistry: Quantum Mechanics & Spectroscopy	..... 4
CHEM	4910	Research in Chemistry	..... 4
GE PHYS	1101	College Physics I	..... 4

PHYS	1102	College Physics II	..... 4
GE MATH	1151	Calculus & Analytic Geometry I	..... 5
MATH	1152	Calculus & Analytic Geometry II	..... 5

Choose one of the following 4 areas **6-15**

Area 1 General Chemistry - 6 hours

CHEM	4421	Advanced Biochemistry	..... 3
CHEM	4111	Advanced Inorganic Chemistry, 3 or	
CHEM	4313	Advanced Organic Chemistry	..... 3

Area 2 Alternative Energy - 14 hours

CHEM	4221	Environmental Chemistry	..... 3
ET	1010	Applied Electricity	..... 4
ET	3017	Industrial Electronics	..... 4

GE GEOG 2212 World Geography 3

Area 3 Environmental Chemistry - 15 hours

BIOL	1110	Principles of Biology	..... 3
CHEM	4221	Environmental Chemistry	..... 3
EASC	3010	Environmental Geology	..... 3
GEOG	4220	Geographic Information Systems I	..... 3
SAFE	3120	Industrial Hygiene	..... 3

Area 4 Entrepreneurship* - 15 hours

ACCT	2100	Survey Of Accounting	..... 3
IBE Block (taken concurrently)			
**CIS	3630	Management Information Systems	..... 3
MGT	3315	Management of Organizations	..... 3
MKT	3405	Marketing Policy	..... 3
MGT	3385	Integrative Bus. Exp. Practicum, 3 or	
MKT	3485	Integrative Bus. Exp. Practicum, 3 or	
CIS	3685	Integrative Bus. Exp. Practicum, 3,	..... 3

GENERAL EDUCATION REQUIREMENTS **29-32**

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. Hours listed in (I) are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE CHEM	1131	General Chemistry I	..... (5)
GE MATH	1151	Calculus & Analytic Geometry I	..... (5)
GE PHYS	1101	College Physics I	..... (4)

Take GECON 1010 if you are interested in the MBA program.

FREE ELECTIVES **9-18**

MINIMUM TOTAL **120**

¹⁰Competency 10 course

** This course has a prerequisite not listed in the program; see specific class listing in the catalog for additional requirements.

CHEMISTRY

Major, Bachelor of Science in Education Degree

[Certification to teach chemistry in grades 9-12]
(41-485)

The graduate with a Bachelor of Science in Education degree in Chemistry will use the knowledge and skills obtained in the program to:

- Collect, analyze and apply information to solve problems (managing information & higher-order thinking).
- Use various laboratory techniques and/or instruments with understanding, accuracy, precision and safety (technology).
- Think logically within a chemistry framework and be receptive to new ideas and concepts (higher-order thinking).
- Use the language and concepts of chemistry to communicate effectively in oral and written form, to follow detailed instructions, and to function in independent and collaborative settings (communicating and interacting).
- Exhibit the ethical use of knowledge, materials and procedures that demonstrate an impact on society (valuing).
- Manage a secondary education program in chemistry that has a laboratory emphasis, with confidence, enthusiasm, efficiency, and safety.

Sem. Hours

MAJOR REQUIREMENTS **59**

GE CHEM	1131	General Chemistry I 5
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CHEM 1132	General Chemistry II	5
CHEM 3111	Intermediate Inorganic Chemistry	4
CHEM 3212	Quantitative Analysis	3
CHEM 3341	Organic Chemistry I	4
CHEM 3421	Intermediate Biochemistry	3
CHEM 4531	Physical Chemistry: Thermodynamics & Kinetics, 4 or	
CHEM 4532	Physical Chemistry: Quantum Mechanics & Spectroscopy, 4	4
GEBIOL 1005	Intro. to Environmental Science	3
BIOL 1110	Principles of Biology, 3 or	
*BIOL 1111	Plant Biology, 4	3-4
GEASC 1004	Introduction to Geology	4
GE MATH 1151	Calculus & Analytic Geometry I	5
GECTE 2000	Technology & Society	3
GEPHYS 1101	College Physics I, 4 or	
GEPHYS 2121	University Physics I, 5 or	
PHYS 2123	University Physics I, 4	
	and	
PHYS 1123	Elementary Physics Lab I, 1	4-5
STCH 4050	Science Teaching Methods	3

Electives in science from the following list. Hours of electives must bring the total in the major to 59 hours

CHEM 3342	Organic Chemistry II	4
CHEM 4231	Instrumental Analysis	4
CHEM 4421	Advanced Biochemistry	3
CHEM 4431	Biochemistry Lab	2
CHEM 4531 or 4532	Physical Chemistry	4
	(CHEM 4531 and 4532 together satisfy 8 hours in the major including 4 elective hours)	
CHEM 4910	Research in Chemistry	1-4
*BIOL 1112	Animal Biology	4
BIOL 2512	Cell Biology	3
BIOL 3511	Genetics	3
BIOL 3712	Field Natural History	4
EASC 3010	Environmental Geology	3
EASC 3112	Astronomy	3
*EASC 3114	Meteorology	3
EASC 3320	Mineralogy	4
*EASC 4010	Special Problems in Geology	1
*PHYS 1102	College Physics II, 4 or	
*PHYS 2122	University Physics II, 5 or	
*PHYS 2124	University Physics II, 4	
	and	
*PHYS 1124	Elementary Physics Lab II, 1	4-5
PHYS 3080	Advanced Physics Lab	1-2
PHYS 3511	Modern Physics I	3
PHYS 3611	Optics	3
PHYS 4312	Electricity & Magnetism	3

UNIFIED SCIENCE CERTIFICATION - The starred (*) courses above must be taken as part of the core and elective credits for Unified Science certification in chemistry - certification to teach any of the beginning sciences (i.e., Biology I, Physics I, etc.) and all levels of chemistry, grades 9-12.

PROFESSIONAL EDUCATION REQUIREMENTS (page 90) 34

EDFL 2100	Foundations of Education	2
GEEDFL 2240	Educational Psychology	3
EDFL 3500	Secondary Teaching & Behavioral Mgt.	3
EDFL 4210	Teaching Reading in Secondary School	2
EDFL 4300	Educational Assessment & Evaluation	2
EDSP 2100	Education of the Exceptional Child	2
FLDX 2150	Introductory Field Experience	1
FLDX 3550	Practicum in Secondary Instruction	1
GEPSY 4230	Psychology of Adolescence	3
STCH 4050	Science Teaching Methods	3
	Student Teaching semester:	
FLDX 4595	Student Teaching Secondary I	5
¹⁰ FLDX 4468	Student Teaching Secondary II	4
STCH 4080	Teaching Secondary Science	3

GENERAL EDUCATION REQUIREMENTS 29

All students must complete a minimum of 42 credit hours in general

education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. Hours listed in (I) are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GEBIOL 1005	Intro. to Environmental Science	(3)
GECTE 2000	Technology & Society	(3)
GEASC 1004	Introduction to Geology	(4)
GE MATH 1151	Calculus & Analytic Geometry I	(5)
GE POLS 1510	American Government	3
GEPSY 4230	Psy. of Adolescence	(3)
GE HIST 1350	History of US to 1877, 3 or	
GE HIST 1351	History US from 1877, 3	3

MINIMUM TOTAL 122

¹⁰Competency 10 course

CHEMISTRY

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (478)

Sem. Hours

MINOR REQUIREMENTS 21

GE CHEM 1131	General Chemistry I	5
CHEM 1132	General Chemistry II	5
CHEM 3341	Organic Chemistry I	4
CHEM 3342	Organic Chemistry II	4
	Upper-level (3000/4000) elective in Chemistry	3

FORENSIC CHEMISTRY

Major, Bachelor of Science Degree

(43-294)

The graduate with a Bachelor of Science degree in Forensic Chemistry will use the knowledge and skills obtained in the program to:

- Collect, analyze and apply information to solve problems (managing information & higher-order thinking).
- Understand how to safely utilize laboratory instruments and employ the appropriate laboratory techniques to investigate chemical systems (technology).
- Understand chemical concepts and use evidence to draw conclusions (higher-order thinking).
- Use the language and concepts of chemistry to communicate effectively in oral and written form (communicating).
- Function in independent and collaborative settings to solve problems (interacting).
- Ethically and with integrity, apply chemical knowledge, materials, and skills that impact society (valuing).
- Be prepared for post-baccalaureate education and employment in the public and private sectors.

Sem. Hours

MAJOR REQUIREMENTS 79-81

GE CHEM 1131	General Chemistry I	5
CHEM 1132	General Chemistry II	5
CHEM 3111	Intermed Inorganic Chemistry	4
CHEM 3212	Quantitative Analysis	3
CHEM 3341	Organic Chemistry I	4
CHEM 3342	Organic Chemistry II	4
CHEM 3421	Intermediate Biochemistry	3
¹⁰ CHEM 3920	Communication Skills in Chemistry	2
CHEM 4231	Instrumental Analysis	4
CHEM 4531	Physical Chemistry: Thermodynamics & Kinetics, 4 or	
CHEM 4532	Physical Chemistry: Quantum Mechanics & Spectroscopy, 4	4
GE MATH 1151	Calculus & Analytic Geometry I	5
BIOL 1110	Principles of Biology	3
GEBIOL 2010	Human Biology, 3 or	
BIOL 3401	Human Anatomy, 3	3

BIOL	3410	Forensic Science	3
BIOL	3511	Genetics	4
BIOL	4514	Molecular Biology	3
BIOL	4013	Introduction to Experimental Design & Analysis	3
GECJ	1000	Introduction to Criminal Justice	3
CJ	4302	Evidence & Courtroom Procedure	3
Electives from the following			8-10
GEPHYS	1101	College Physics I, 4 and	
PHYS	1102	College Physics II, 4	8
or			
GEPHYS	2121	University Physics I, 5 and	
PHYS	2122	University Physics II, 5	10
Electives from the following			3
CHEM	4313	Advanced Organic Chemistry	3
CHEM	4421	Advanced Biochemistry	3
CHEM	4431	Biochemistry Laboratory	2
CHEM	4531	Physical Chemistry: Thermodynamics & Kinetics	4
CHEM	4532	Physical Chemistry: Quantum Mechanics & Spectroscopy	4
CHEM	4910	Research in Chemistry	3-4

GENERAL EDUCATION REQUIREMENTS 29

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GECHEM	1131	General Chemistry I	(5)
GECJ	1000	Introduction to Criminal Justice	(3)
GEMATH	1151	Calculus & Analytic Geometry I	(5)
GEPHYS	1101	College Physics I, 4 or	
GEPHYS	2121	University Physics I, 5 (if chosen)	(4-5)

FREE ELECTIVES 10-12

MINIMUM TOTAL 120

¹⁰Competency 10 course

FORENSIC SCIENCE

Minor for a Bachelor's Degree

See requirements as outlined in the Department of Biology and Earth Science.

EARTH SCIENCE

EARTH SCIENCE

Major, Bachelor of Science in Education Degree

(Certification to teach Earth Science in grades 9-12. (41-280)

The graduate with a Bachelor of Science in Education degree in Earth Science will use the knowledge and skills obtained in the program to:

- Collect, analyze and apply information to solve problems (managing information and higher-order thinking).
- Use various laboratory techniques and/or instruments with understanding, accuracy, precision and safety (technology).
- Think logically within an Earth Science framework and be receptive to new ideas and concepts (higher-order thinking).
- Use the language and concepts of Earth Science to communicate effectively in oral and written form, to follow detailed instructions, and to function in independent and collaborative settings (communicating and interacting).
- Exhibit the ethical use of knowledge, materials and procedures that demonstrate an impact on society (valuing).
- Manage a secondary education program in Earth Science that has a laboratory emphasis, with confidence, enthusiasm, efficiency, and safety.

MAJOR REQUIREMENTS 53-59

CORE 40

GEEASC	1004	Introduction to Geology	4
EASC	2200	Historical Geology	4
EASC	3010	Environmental Geology	3
EASC	3112	Astronomy	3
EASC	3115	Oceanography	3
BIOL	1112	Animal Biology	4
BIOL	4102	Evolution	3
GECHEM	1131	General Chemistry I	5
STCH	4050	Science Teaching Methods	3
EASC	1114	Weather & Climate, 4 or	
GEOG	1114	Weather & Climate, 4	4
EASC	2100	Engineering Geology, 4 or	
EASC	3501	Invertebrate Paleontology, 4 or	
EASC	4300	Earth Resources, 4	4
Choose from one of the areas listed			13-19

Area 1 Standard Earth Science Certificate - 13

GEPHYS	1101	College Physics I, 4 or	
GEPHYS	1104	Intro. to the Sciences: Physics, 4	4
Electives from the following			9
Any course with a BIOL, CHEM, EASC or PHYS prefix			3-4
AGRI	2330	Introduction to Soil Science	3
GEOG	4280	Natural Disasters	3
GEOG	4291	Conservation of Natural Resources	3

Area 2 Earth Science - Unified Science Certificate* - 17-19

BIOL	1111	Plant Biology	4
CHEM	1132	General Chemistry II	5
One set of physics courses.			8-10
GEPHYS	1101	College Physics I, 4 and	
PHYS	1102	College Physics II, 4	8
or			
GEPHYS	2121	University Physics I, 5 and	
PHYS	2122	University Physics II, 5	10

*Unified Science certification in Earth Science is certification to teach any of the beginning sciences (i.e., Chemistry I, Physics I, etc.) and all levels of Earth Science, grades 9-12.

PROFESSIONAL EDUCATION REQUIREMENTS (page 90) 31

EDFL	2100	Foundations of Education	2
GEDFL	2240	Educational Psychology	3
EDFL	3500	Secondary Teaching & Behavioral Mgt.	3
EDFL	4210	Teaching Reading in Secondary School	2
EDFL	4300	Educational Assessment & Evaluation	2
EDSP	2100	Education of the Exceptional Child	2
FLDX	2150	Introductory Field Experience	1
FLDX	3550	Practicum in Secondary Instruction	1
GEPHY	4230	Psychology of Adolescence	3
STCH	4050	Science Teaching Methods (hours are included under Major Requirements)	(3)
Student Teaching Semester:			
FLDX	4595	Student Teaching Secondary I	5
¹⁰ FLDX	4468	Student Teaching Secondary II	4
STCH	4080	Teaching Secondary Science	3

GENERAL EDUCATION REQUIREMENTS 32

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GEEASC	1004	Introduction to Geology	(4)
GECHEM	1131	General Chemistry I	(5)
GEDFL	2240	Educational Psychology	(3)
GEHIST	1350	History of US to 1877, 3 or	
GEHIST	1351	History US from 1877, 3	3
GEPOLS	1510	American Government	3

FREE ELECTIVES 0-4

MINIMUM TOTAL 120-122

¹⁰Competency 10 course

EARTH SCIENCE

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (477)

	Sem. Hours
MINOR REQUIREMENTS	20
GEASC 1004 Introduction to Geology	4
EASC 2200 Historical Geology	4
Electives in earth science**	12

**Must include at least one upper-level (3000/4000) course to meet graduation requirements.

GEOGRAPHY

GEOGRAPHY

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (431)

	Sem. Hours
MINOR REQUIREMENTS	21
GEOG 2100 Physical Geography	3
GEORG 2212 World Geography	3
GEOG 2246 Economic Geography	3
GEOG 3270 Research Methods in Geography	3
Electives from the following, including one course in regional geography	9
GEASC 1004 Introduction to Geology	4
EASC 3111 Geomorphology	3
Electives in geography	2-9

GEOGRAPHIC INFORMATION SYSTEMS

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (857)

	Sem. Hours
MINOR REQUIREMENTS	21
GEORG 2212 World Geography	3
GEOG 2281 Map Interpretation	3
GEOG 3270 Research Methods in Geography	3
GEOG 4201 Cartography	3
GEOG 4220 Geographic Information Systems I	3
GEOG 4221 Geographic Information Systems II	3
GEOG 4210 Remote Sensing & Image Interpretation	3

PHYSICS

PHYSICS

Major, Bachelor of Science in Education Degree

Certification to teach physics in grades 9-12. (41-486)

The graduate with a Bachelor of Science in Education degree in Physics will use the knowledge and skills obtained in the program to:

- Collect, analyze and apply information to solve problems (managing information & higher-order thinking).
- Use various laboratory techniques and/or instruments with understanding, accuracy, precision and safety (technology).
- Think logically within a physics framework and be receptive to new ideas and concepts (higher-order thinking).
- Use the language and concepts of physics to communicate effectively in oral and written form, to follow detailed instructions, and to function in independent and collaborative settings (communicating and interacting).
- Exhibit the ethical use of knowledge, materials and procedures that demonstrate an impact on society (valuing).

- Manage a secondary education program in physics, that has a laboratory emphasis, with confidence, enthusiasm, efficiency, and safety. Sem. Hours

MAJOR REQUIREMENTS **58-64**

GE/CHEM 1131	General Chemistry I	5
CHEM 1132	General Chemistry II	5
GE/PHYS 2121	University Physics I, 5 or	
GE/PHYS 1101	College Physics I, 4	4-5
PHYS 2122	University Physics II, 5 or	
PHYS 1102	College Physics II, 4	4-5
PHYS 4411	Thermodynamics, 3 or	
CHEM 4531	Physical Chemistry: Thermodynamics & Kinetics, 4	3-4
PHYS 3511	Modern Physics I, 3 and	
PHYS 3080	Advanced Physics Lab, 1; or	
CHEM 4532	Physical Chemistry: Quantum Mechanics & Spectroscopy, 4	4
PHYS 3020	Special Topics in Physics (Astronomy).	3
PHYS 3020	Special Topics in Physics, 1-3 or	
PHYS 4911	Special Problems in Physics , 1-3	1-3
GE/BIOL 1005	Intro. to Environmental Science	3
BIOL 1110	Principles of Biology, 3 or	
BIOL 1111	Plant Biology, 4	3-4
GE/ASC 1004	Introduction to Geology, 4 or	
EASC 1114	Weather & Climate, 4 or	
GEOG 1114	Weather & Climate, 4	4
CS 1100	Computer Programming I.	3
PHIL 3800	Philosophy of Science and Technology	3
GE/MATH 1151	Calculus & Analytic Geometry I	5
MATH 1152	Calculus & Analytic Geometry II	5
STCH 4050	Science Teaching Methods	3

PROFESSIONAL EDUCATION REQUIREMENTS (page 90) **31**

EDFL 2100	Foundations of Education	2
GE/EDFL 2240	Educational Psychology	3
EDFL 3500	Secondary Teaching & Behavioral Mgt.	3
EDFL 4210	Teaching Reading in Secondary School	2
EDFL 4300	Educational Assessment & Evaluation	2
EDSP 2100	Education of the Exceptional Child	2
FLDX 2150	Introductory Field Experience	1
FLDX 3550	Practicum in Secondary Instruction	1
GE/PSY 4230	Psychology of Adolescence	3
STCH 4050	Science Teaching Methods (hours are included under Major Requirements)	(3)

Student Teaching Semester:

FLDX 4595	Student Teaching Secondary I	5
¹⁰ FLDX 4468	Student Teaching Secondary II	4
STCH 4080	Teaching Secondary Science	3

GENERAL EDUCATION REQUIREMENTS **27**

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in (I) are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE/BIOL 1005	Intro. Environmental Science.	(3)
GE/CHEM 1131	General Chemistry I.	(5)
GE/EDFL 2240	Educational Psychology.	(3)
GE/HIST 1350	History of US to 1877, 3 or	
GE/HIST 1351	History US from 1877, 3	3
GE/MATH 1151	Calculus & Analytic Geometry I	(5)
GE/POLS 1510	American Government	3

FREE ELECTIVE. **0-4**

MINIMUM TOTAL **120-122**

¹⁰Competency 10 course

PHYSICS

Minor, Bachelor of Science Degree

UCM does not confer teacher certification for this minor. Students choosing this minor must also complete GE/MATH 1151, MATH 1152 and

MATH 2153 or equivalents as prerequisites for courses in the minor. (479)

	Sem. Hours
MINOR REQUIREMENTS	21-22
GEPHYS 2121 University Physics I	5
PHYS 2122 University Physics II	5
PHYS 3080 Advanced Physics Lab	2-3
PHYS 3511 Modern Physics I	3
Electives from the following	6
PHYS 3512 Modern Physics II.	3
PHYS 3611 Optics	3
PHYS 4312 Electricity & Magnetism	3
PHYS 4411 Thermodynamics	3
PHYS 4512 Intro. to Quantum Mechanics	3
PHYS 4513 Solid State Physics	3
PHYS 4711 Atomic & Nuclear Physics	3
PHYS 3211 Analytical Mechanics I, 3 or	
PHYS 4212 Analytical Mechanics II, 3	3

SAFETY SCIENCE

SAFETY MANAGEMENT

Major, Bachelor of Science Degree (43-243)

Program Outcomes.

The graduate with a Bachelor of Science degree in Safety Management will use the knowledge and skills obtained in the programs to:

- Demonstrate an awareness of legal, professional and ethical responsibilities.
- Understand the importance of continuous professional development.
- Possess knowledge of contemporary Safety Science and Technology issues faced in local, national and global contexts.
- Identify managerial solutions using business principle models.
- Identify behavioral solutions to occupational safety and health problems.

Graduation Requirements

Students seeking to graduate from this program must have a minimum 2.20 cumulative grade-point average and must have achieved a grade of C or better in GEPHYS 1103 and GEICHEM 1104. An assessment examination must be completed in the last semester of course work.

	Sem. Hours
MAJOR REQUIREMENTS	58
SAFE 1000 Exploring Safety Sciences	1
SAFE 3000 Prin. of Accident Causation & Prev.	3
SAFE 3070 Safety Leadership	3
SAFE 3120 Industrial Hygiene	3
SAFE 3430 Industrial Hazard Control	3
SAFE 4000 Ergonomics in Safety & Health	3
SAFE 4010 Accident Investigation	3
SAFE 4020 Legal Aspects of Safety & Health	3
SAFE 4035 Safety Program Management	3
¹⁰ SAFE 4055 Safety Capstone Experience	3
SAFE 4140 Safety & Health Laboratory	3
SAFE 4425 Safety & Health Legislation	
& Standards	3
SAFE 4430 Workers Compensation Legislation	3
SAFE 4435 Environmental Compliance	3
SAFE 4510 Loss Control	3
SAFE 4520 Safety & Risk Analysis	3
SAFE 4560 Systems Safety	3
SAFE 4850 Industrial Fire Protection	3
SAFE 4940 Statistical Analysis for Risk Management ...	3
SAFE 4990 Internship Safety Sciences, 3 or	
Departmentally approved elective, 3	3

MINOR (optional but recommended) OR FREE ELECTIVES. 20

GENERAL EDUCATION REQUIREMENTS

42 All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required

coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GEICHEM 1104	Intro. to the Sciences: Chemistry	4
GECTE 3060	Technical Writing	3
GE MATH 1111	College Algebra	3
GEPHYS 1103	Introduction to the Sciences: Physics	3
GEPSY 1100	General Psychology	3
MINIMUM TOTAL		120

¹⁰Competency 10 course

SAFETY

Minor for a Bachelors Degree

UCM does not confer teacher certification for this minor.

Students seeking a Safety Management Major, Bachelor of Science Degree are restricted from pursuing a Safety Minor. (193)

	Sem. Hours
MINOR REQUIREMENTS	24
SAFE 3000 Prin. of Accident Causation & Prev.	3
SAFE 3015 Emergency Preparedness	3
SAFE 4010 Accident Investigation	3
SAFE 4035 Safety Program Management	3
SAFE 3120 Industrial Hygiene	3
SAFE 4425 Safety & Health Legislation	
& Standards	3
SAFE 4430 Workers Compensation Legislation	3
SAFE 1800 Introduction to Fire Science	3

FIRE SCIENCE

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor.

(177)

	Sem. Hours
MINOR REQUIREMENTS	24
SAFE 1800 Introduction to Fire Science	3
SAFE 2800 Fire Prevention & Protection	3
SAFE 4020 Legal Aspects of Safety & Health	3
SAFE 4800 Water & Sprinkler Systems Analysis	3
SAFE 4810 Fire Extinguishing & Alarm Sys.	3
SAFE 4830 Fire Investigation	3
SAFE 4850 Industrial Fire Protection	3
SAFE 3015 Emergency Preparedness, 3 or	
CMGT 3330 Bldg. Codes & Code Adm., 3	3

SECURITY

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor.

(185)

	Sem. Hours
MINOR REQUIREMENTS	21
SAFE 1700 Introduction to Security	3
SAFE 3700 Security Org. & Management	3
SAFE 4710 Security Technology	3
SAFE 4830 Fire Investigation	3
ACCT 2101 Principles of Financial Accounting	3
SAFE 3015 Emergency Preparedness, 3 or	
ESE 1300 Intro. to Entrepreneurship & Business, 3 ...	3
SAFE 4020 Legal Aspects of Safety & Health, 3 or	
BLAW 2720 Legal Environment of Business, 3	3

OCCUPATIONAL SAFETY AND HEALTH

Major, Bachelor of Science Degree

(43-276)

The graduate with a Bachelor of Science degree in Occupational Safety and Health will use the knowledge and skills obtained in the programs to:

- Demonstrate an awareness of legal, professional and ethical responsibilities.
- Understand the importance of continuous professional development.
- Possess knowledge of contemporary Safety Science and Technology issues faced in local, national and global contexts.
- Identify technical solutions to occupational safety and health problems.
- Identify scientific solutions to the mitigation of hazardous exposures.

OSH Program Educational Objectives

Additionally, the graduate with a Bachelor of Science in Occupational Safety and Health will use the knowledge and skills obtained in the programs to demonstrate the following Program Educational Objectives:

- Demonstrate the ability to communicate professionally both verbally and in writing.
- Apply professional integrity and ethical standards.
- Analyze 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.
- Engage in life-long learning for the purpose of enhancing discipline specific technical competencies.
- Evaluate, recommend and implement appropriate technical and scientific hazard mitigation strategies.

Graduation Requirements

Students seeking to graduate from this program must have a minimum 2.20 cumulative grade-point average and must have achieved the grade of C or better in **GE**PHYS 1104, CHEM 1604 and **GE**MATH 1111. These three courses meet basic program assessment outcomes in science and math. An assessment examination must be completed during the last semester of course work.

Accreditation

The Occupational Safety and Health program is accredited by the Applied Science Accreditation Commission of ABET, <http://abet.org>

Sem. Hours

MAJOR REQUIREMENTS 65

SAFE 1000	Exploring Safety Sciences	1
SAFE 2900	Applied Sciences for Professional Studies . . .	3
SAFE 3000	Prin. of Accident Causation & Prev.	3
SAFE 3120	Industrial Hygiene	3
SAFE 3430	Industrial Hazard Control	3
SAFE 4000	Ergonomics in Safety & Health	3
SAFE 4010	Accident Investigation	3
SAFE 4020	Legal Aspects of Safety & Health	3
SAFE 4035	Safety Program Management	3
¹⁰ SAFE 4055	Safety Capstone Experience	3
SAFE 4140	Safety & Health Laboratory	3
SAFE 4160	Ind. Ventilation for Env. Safety & Health . . .	3
SAFE 4425	Safety & Health Legislation & Standards	3
SAFE 4430	Workers Compensation Legislation	3
SAFE 4435	Environmental Compliance	3
SAFE 4560	Systems Safety	3
SAFE 4850	Industrial Fire Protection	3
SAFE 4940	Statistical Analysis for Risk Management . . .	3
SAFE 4990	Intern. in Safety Sciences	3
GE BIOL 2010	Human Biology	3
CHEM 1604	Elem. Organic & Biochemistry	4
	Departmentally approved electives	3

GENERAL EDUCATION REQUIREMENTS 43

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GE CHEM 1104	Intro. to the Sciences: Chemistry	4
GE CTE 3060	Technical Writing	3
GE MATH 1111	College Algebra	3
GE PHYS 1104	Intro to Sciences: Physics	4
GE PSY 1100	General Psychology	3

FREE ELECTIVES 12

MINIMUM TOTAL 120

¹⁰Competency 10 course

SCHOOL OF TECHNOLOGY

The School of Technology
Grinstead 009
660-543-4439
ucmo.edu/technology

Accreditations

Association of Technology, Management, and Applied Engineering
website atmae.org
Automotive Technology Management, Design and Drafting Technology,
Construction Management, Electronics Technology, and Graphic Arts
Technology Management baccalaureates.

American Council for Construction Education
website acce-hq.org
Construction Management Baccalaureate.

American Association of Family and Consumer Sciences
website aafcs.org
Fashion: Textiles and Clothing in Business.

National Automotive Technicians Educational Foundation
website NATEF.org
Automotive Technology Management.

ADVANCED VEHICLE SYSTEMS

Certificate
(10-567)

Required Courses	21
ET 1010 Applied Electricity	4
ATM 2130 Automotive Electrical Systems	4
ATM 2124 Automotive Braking Systems	4
ATM 3120 Steering & Suspension Systems	4
ATM 3134 Advanced Powerplant Systems	3
ATM 4134 Advanced Vehicle Systems	2

APPLIED LEAN SIX SIGMA QUALITY

Certificate
(10-616)

Required Courses	15
ENGT 2600 Lean Enterprises	3
ENGT 3520 Engineering Economy	3
ENGT 3530 Inspection & Quality Control	3
ENGT 4580 Quality Systems Engineering	3
ENGT 4750 Lean Six Sigma	3

AUTOMOTIVE TECHNOLOGY MANAGEMENT

Major, Bachelor of Science Degree
(43-838)

The graduate with a Bachelor of Science degree in Automotive Technology Management will use the knowledge and skills obtained in the program to:

- Research, prepare and present both oral and written reports on technical or management subjects related to his/her area of specialization.
- Identify, analyze and solve technical or management problems related to his/her field of specialization.
- Function effectively as a participating member of a work group to accomplish a particular goal.
- Demonstrate desirable work habits and professional and conscientious attitudes in his/her particular areas of instruction through participation in professional activities and organizations, and leadership activities both in and out of the classroom.
- Demonstrate a mastery of skill beyond the entry level related to one or

more areas of technical, management or marketing specialties in the major area of study.

- Demonstrate technical and general knowledge required in occupational work areas related to the major field of study.

Sem. Hours

MAJOR REQUIREMENTS77-79

Students must receive a grade of C or better in all required courses with the ATM prefix in order for the course to count toward the major.

Technical Courses:

ATM 1010	Contemporary Power Systems	3
ATM 2110	Engine Theory & Maintenance	4
ATM 2124	Automotive Braking Systems	4
ATM 2130	Automotive Electrical Systems	4
ATM 2132	Fuel Systems & Emission Controls	4
ATM 3120	Steering & Suspension Systems	4
ATM 3130	Computerized Engine Diagnostics	4
ATM 3134	Advanced Powerplant Systems	3
ATM 3150	Diesel Technology	4
ATM 4032	Hydraulics & Pneumatics	3
¹⁰ ATM 4112	ATM Capstone Experience	3
ATM 4134	Advanced Vehicle Systems	2
ET 1010	Applied Electricity	4
ET 2060	Microprocessors: Theory & Appl.	4
GENMATH 1300	Basic Statistics, 3 or	
GENMATH 1131	Applied Calculus, 3	3

(For specific general education requirements see below.)

Management Courses*:

SOT 3022	Internship in Technology	3
INDM 4210	Industrial Management, 3 or	
MGT 3315	Management of Organizations, 3	3
ACCT 2100	Survey of Accounting, 3 or	
ACCT 2101	Principles of Financial Accounting, 3	3
BLAW 2720	Legal Environment of Business	3
MKT 3405	Marketing Policy, 3 or	
HRM 3920	Human Resource Mgt, 3	3

*See the department for the possibility of a minor.

Electives from one of the three areas listed.9-11

Area 1 Automotive Technology

ATM 2150	Mobile HVAC	3
ATM 3110	Automotive Engine Overhaul	4
ATM 3140	Transmissions & Drivelines	4

Area 2 Design Technology

CADD 1105	Basic AutoCAD	1
CADD 1110	Fundamentals of Drafting	3
CADD 1170	Intro. Computer Aided Drafting	2

Electives from the following:3-4

ATM 4038	Advanced Hydraulics	3
CADD 4170	Computer-Aided Drafting & Design for Engineering Technology	3
CADD 4180	Industrial Design	3
CMGT 2020	Statics	3
ENGT 2040	Engineering Material Science	4
ENGT 2530	Machine Tool Technology	3
ENGT 4520	Robotics & Automation	3

Area 3 Service Management

Choose 9 hours from the following courses:

ENGT 4580	Quality Systems Engineering	3
HRM 3920	Human Resource Management	3
INDM 4220	Human Factors Engineering	3
INDM 4230	Lean & Quality Management	3
INDM 4250	Project Management	3
INDM 4260	Organizational Dynamics	3
MKT 3420	Principles of Advertising	3
MKT 3430	Professional Sales	3

GENERAL EDUCATION REQUIREMENTS 43

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by

this major:

GE/CHEM 1103	Intro. to the Sciences: Chemistry	3
GE/CIS 1600	Business Information Management	3
GE/COMM 1000	Public Speaking.	3
GE/COMM 3340	Intercultural Communication	3
GE/CTE 3060	Technical Writing.	3
GE/ECON 1010	Principles of Macroeconomics	3
GE/MATH 1111	College Algebra	3
GE/PHYS 1104	Intro. to the Sciences: Physics	4
MINIMUM TOTAL		120-122

¹⁰Competency 10 course

AUTOMOTIVE TECHNOLOGY

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor: (265)

MINOR REQUIREMENTS		Sem. Hours	23
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ATM 1010	Contemporary Power Systems	3
ATM 2130	Automotive Electrical Systems	4
ATM 2110	Eng. Theory & Maintenance	4
ATM 2124	Automotive Braking Systems	4
ATM 2132	Fuel Sys. & Emission Control	4
ATM 3120	Steering & Susp. Systems	4

CONSTRUCTION MANAGEMENT

Major, Bachelor of Science Degree

(43-239)

The graduate with a Bachelor of Science degree with a major in Construction Management will use the knowledge and skills obtained in the program to:

- Apply oral, written, graphic and listening skills as each enhances the behavioral principles or attitude and effective communications.
- Apply scientific knowledge of the mathematical, physical, and construction sciences to the economic utilization of materials and forces of nature affecting construction practice. To implement the various forms of technology necessary to complete the task of construction management, utilizing the computer and electronic data processing through complete word-processing, databases, spreadsheets, applications, and the information highway.
- Apply the principles and philosophy of management systems, cost accounting, and economics to the construction industry, including the interpretation of contracts, the values of team building, and the Construction Code of Conduct established by the industry through the assistance of the American Institute of Constructors.
- To identify the appropriate construction management principles necessary to complete the site plans, evaluating vendors and subcontractors, writing field purchase orders, change orders, subcontract agreements, shop drawings, as built drawings, daily logs and job diaries, construction reports and progress payment requests.
- To execute construction safety standards including the ability to interpret the OSHA construction standards, establish safety and health procedures on the job site, and perform hazardous material and process analysis.
- Understand the science of materials and methods of construction as they apply to the Construction Specifications Institute (CSI) Divisions designated for the construction industry including terminology, standard designations, sizes, and quality testing.
- Complete the estimating, cost accounting, and bidding sequence necessary for construction job acquisition and completion. To prepare and complete cost control processes including the ability to establish a budget, prepare cost reports, and forecast expenditures.
- Perform quantity take-off, interpret construction specification, identify appropriate codes, identify site conditions, apply value engineering, and develop detailed project proposals. To prepare a complete construction project schedule, develop a procurement time table, establish a project manual and plan showing the logical sequence of activities and time duration in order to monitor progress and update schedules.

Sem. Hours

MAJOR REQUIREMENTS 83

CMGT 1300	Intro. to Construction Management	3
CMGT 1301	Seminar in Construction Management	2
CMGT 2020	Statics	3
CMGT 2310	Construction Plans & Specs	3
CMGT 2325	Project Cost Estimating	3
CMGT 2340	Surveying & Construction Layout	3
CMGT 3020	Applied Strength of Materials	3
CMGT 3320	Prin. of Construction Mgt.	3
CMGT 3330	Building Codes & Code Administration	3
CMGT 3350	Building Structures: Methods & Materials	3
CMGT 3355	Construction Planning & Scheduling.	3
CMGT 4310	Construction Safety	3
CMGT 4325	Advanced Est. & Cost Analysis	3
CMGT 4355	Computer-Based Project Control	3
¹⁰ CMGT 4400	Construction Operations	3
ENGT 2040	Engineering Material Science	4
CADD 1105	Basic AutoCAD	1
CADD 1110	Fundamentals of Drafting	3
SOT 3022	Internship in Technology	1
EASC 2100	Engineering Geology	4
MATH 1112	College Trigonometry	2
GE/MATH 1300	Basic Statistics.	3
ACCT 2101	Principles of Financial Accounting	3
BLAW 2720	Legal Env. of Business	3
CADD 3150	Civil Drafting, 3 or	
CADD 4162	Comm. Architectural Design/Drafting (BIM)	3
MGT 3315	Management of Organizations, 3 or	
INDM 4210	Industrial Management, 3	3
MKT 3405	Marketing Policy, 3 or	
ACCT 2102	Prin. of Managerial Acct., 3	3
HRM 3920	Human Resource Mgt., 3 or	
INDM 4260	Organizational Dynamics, 3	3
Electives from the following: 3		
CMGT 4330	Mechanical Systems for Buildings	3
CMGT 4380	Heavy Construction: Methods & Matrls.	3

GENERAL EDUCATION REQUIREMENTS. 43

All students must complete a minimum of 42 credit hours in general education. Some majors require additional hours due to required coursework. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GE/CIS 1600	Business Information Management	3
GE/CTE 3060	Technical Writing.	3
GE/EASC 1004	Introduction to Geology	4
GE/ECON 1010	Principles of Macroeconomics	3
GE/MATH 1111	College Algebra	3
GE/PHYS 1103	Introduction to the Sciences: Physics	3

MINIMUM TOTAL 126

¹⁰Competency 10 course

CONSTRUCTION MANAGEMENT

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (258)

Sem. Hours

MINOR REQUIREMENTS 21

CMGT 1300	Introduction to Construction Management	3
CMGT 2310	Construction Plans & Specifications	3
CMGT 3320	Principles of Construction Management	3
CMGT 3355	Construction Planning & Scheduling	3
Electives from the following 9		
CMGT 2325	Project Cost Estimating	3
*CMGT 2340	Surveying & Const. Layout	3
CMGT 3330	Building Codes & Code Administration	3
CMGT 3350	Building Structures: Methods & Materials	3
CMGT 4310	Construction Safety	3
**CMGT 4325	Advanced Estimating & Cost Analysis	3

CMGT 4330 Mechanical Systems for Buildings 3
 CMGT 4380 Heavy Construction: Methods & Matrls. . . 3
 CMGT 1300 and CMGT 2310 should be taken before enrolling in any upper-level (3000/4000) CMGT courses.
 *Has prerequisite of MATH 1112 not included in the minor program.
 **Has prerequisite of CMGT 2325.

COOPERATIVE ENGINEERING 2-2

Transfer Agreement
 (590)

PROGRAM OF STUDY FOR STUDENTS TRANSFERING TO OTHER INSTITUTIONS

The University of Central Missouri offers this pre-professional program to prepare students to transfer to a college or university offering a Bachelor of Science degree in Engineering. The first two years of courses are completed at UCM. To ensure a smooth transition, students should verify their course selection with the catalog of the school they are transferring to or contact an engineering program faculty advisor at the future engineering school. For details, consult the UCM Engineering Technology Coordinator.

Sem. Hours

RECOMMENDED COURSES 65

GE MATH 1151	Calculus & Analytic Geometry I	5
MATH 1152	Calculus & Analytic Geometry II	5
MATH 2153	Calculus & Analytic Geometry III.	3
MATH 3151	Differential Equations	3
GE PHYS 2121	University Physics I	5
PHYS 2122	University Physics II.	5
PHYS 3211	Analytical Mechanics I	3
PHYS 4212	Analytical Mechanics II.	3
GE CHEM 1131	General Chemistry I	5
ENGT 3520	Engineering Economy	3
CADD 1105	Basic AutoCAD	1
CADD 1110	Fundamentals of Drafting.	3
GE ENGL 1030	Composition II.	3
GE HIST 1350	History of US to 1877, 3 or	
GE HIST 1351	History US from 1877, 3	3
GE ECON 1010	Principles of Macroeconomics, 3 or	
ECON 1011	Principles of Microeconomics, 3	3
Gen. Ed.: K.A. I	. . . . .	9
Gen. Ed.: K.A. III	. . . . .	3
TOTAL HOURS	. . . . .	65

DESIGN & DRAFTING TECHNOLOGY

Major, Bachelor of Science Degree
 (43-568)

The graduate with a Bachelor of Science Degree in Design & Drafting Technology will use the knowledge and skills obtained in the program to:

- Apply current computer-aided drafting and design concepts and technical knowledge to interpret and develop orthographic, pictorial, and schematic drawings.
- Develop sketching, manual drafting, and computer aided drafting skills to create orthographic, pictorial, and schematic drawings.
- Integrate related technical and scientific support skills and concepts into computer-aided drafting and design technology applications.
- Demonstrate oral, written, graphic and numerical communication skills applicable to individual and group activities utilized in computer-aided drafting and design and related technologies.
- Apply critical and creative thinking as needed for problem solving applicable to computer-aided drafting and design and related technologies.
- Apply principles of management of personnel, equipment, materials, and processes applicable to computer-aided drafting and design and related technologies.

- Display a value system based on personal characteristics and ethical behavior appropriate for professions in computer-aided drafting and design and related technologies.

Sem. Hours

MAJOR REQUIREMENTS 75

Students must receive a grade of C or better in all required courses with the CADD prefix in order for the course to count toward the major.

CADD 1100	Orientation to Drafting	1
CADD 1105	Basic AutoCAD.	1
CADD 1110	Fundamentals of Drafting, 3 or	
CTE 1300	Introduction to Engineering Design, 3	3
CADD 1170	Intro. to Computer-Aided Drafting	2
CADD 2120	Machine Drafting.	3
CADD 2100	Sophomore Design/Drafting Seminar	0.5
CADD 2150	Descriptive Geometry for Engineering Technology	3
CADD 2160	Structural Drafting	3
CADD 2171	Introduction to MicroStation	3
CADD 2180	Technical Illustration	3
CADD 3100	Junior Design/Drafting Seminar	0.5
CADD 3150	Civil Drafting	3
CADD 3170	Computer Drafting Systems	3
CADD 3175	Advanced Microstation	3
CADD 4100	Senior Design/Drafting Seminar	1
CADD 4170	Computer-Aided Drafting & Design for Engineering Technology	3
¹⁰ CADD 4180	Industrial Design	3
CMGT 2020	Statics	3
ENGT 2530	Machine Tool Technology	3
IGEN 3116	Creative Problem Solving	3
MATH 1112	College Trigonometry	2
SOT 3022	Internship in Technology	1
SOT 4570	Computer Graphics	3
Electives from the following	. . . . .	6
MGT 3315	Management of Organizations, 3 and	
HRM 3920	Human Resource Mgt., 3	6
OR		
INDM 4250	Project Management, 3 and	
INDM 4260	Organizational Dynamics, 3	6
Choose from one of the four areas listed	. . . . .	15
Area 1 Mechanical (Product/Machine)Design		
CADD 4124	Geometric Dimensioning & Tolerancing Principles for Engineering Technology	3
CADD 4171	Production Design Drafting	3
CADD 4174	Machine Design	3
Departmentally approved program electives	. . . . .	6
Area 2 Architectural/Structural		
CADD 3160	Residential Architectural Drawing	3
CADD 4162	Commercial Arch. D&D (BIM)	3
CMGT 3330	Building Codes & Code Admin.	3
Departmentally approved program electives	. . . . .	6
Area 3 MEP (Mechanical, Electrical & Plumbing) & Industrial Piping Systems		
CADD 4162	Commercial Architec. D&D (BIM)	3
CADD 4172	MEP (Mechanical, Electrical & Plumbing) & Industrial Piping Design/Drafting	3
CMGT 3330	Building Codes & Code Admin.	3
Departmentally approved MEP electives	. . . . .	6
Area 4 Civil/GIS		
CADD 4150	Applied Civil Design/Drafting	3
CMGT 2340	Surveying & Construction Layout	3
GEOG 4220	Geographic Information Systems I	3
Departmentally approved program electives	. . . . .	6
Area 5 Computer Graphics		
GRAP 1010	Fundamentals of Graphic Processes 3	
GRAP 2610	Principles of Web Media	3
Departmentally approved program electives	. . . . .	9

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GE	BTE	1210	Essentials of Managing Information	2
GE	CTE	3060	Technical Writing	3
GE	EASC	1004	Introduction to Geology	4
GE	GEOG	2212	World Geography	3
GE	MATH	1111	College Algebra	3
GE	PHYS	1103	Introduction to the Sciences: Physics	3
FREE ELECTIVES				3
MINIMUM TOTAL				120

¹⁰Competency 10 course

ELECTRONICS TECHNOLOGY

Major, Bachelor of Science Degree (43-221)

The graduate with a Bachelor of Science degree in Electronics Technology will use the knowledge and skills obtained in the program to:

- Research, prepare and present both oral and written reports on technical or management subjects related to his/her area of specialization.
- Identify, analyze and solve technical or management problems related to his/her field of specialization.
- Function effectively as a participating member of a work group to accomplish a particular goal.
- Demonstrate desirable work habits and professional and conscientious attitudes in his/her particular areas of instruction through participation in professional activities and organizations, and leadership activities both in and out of the classroom.
- Demonstrate a mastery of skill beyond the entry level related to one or more areas of technical, management or marketing specialities in the major area of study.
- Demonstrate technical and general knowledge required in occupational work areas related to the major field of study.

				Sem. Hours
MAJOR REQUIREMENTS				72
CORE				30
ET	1026	DC Circuit Analysis	4	
ET	1027	AC Circuit Analysis	4	
ET	1050	Digital Principles & Applications	4	
ET	2048	Active Electronic Devices	4	
ET	2060	Microprocessors: Theory & Appl.	4	
ET	2065	Computer Programming for Electronics Technology	4	
SOT	3022	Internship in Technology	3	
¹⁰ ENGT	4110	Engineering Tech. Problem Solving, 3 or	3	
¹⁰ GEN	3116	Creative Problem Solving, 3	3	
Courses from Area 1 OR Area 2				42
Area 1 Electrical/Electronic Communication Technology				
ET	3014	Analog-Digital Circuitry	4	
ET	3017	Industrial Electronics	4	
ET	3020	Circuit Analysis & Implementation	4	
ET	3041	Communication Systems	4	
TECH	1042	Technical Mathematics II, 3 or	3	
MATH	1112	College Trigonometry, 2	2-3	
TECH	2040	Calculus for Technology, 3 or	3	
GMATH	1131	Applied Calculus, 3	3	
MGT	3315	Management of Organizations, 3, or	3	
INDM	4210	Industrial Management, 3	3	
Electives in Management				3
Departmentally approved electives				14-15
OR				
Area 2 Computer/Networking Electronics Technology				
NET	1058	Computer Technologies	3	
NET	1060	Introduction to Networking Basics	3	
NET	1061	Routers & Routing Basics	3	
NET	2060	Switching Basics & Intermediate Routing	3	
NET	2061	WAN Technologies	3	

NET	3068	Network Security I	4
NET	4060	Advanced Network Routing	3
NET	4062	Advanced Switching	3
NET	4063	Network Support	3
Departmentally approved electives			5
Electives from the following:			9
NET	4040	Fundamentals of Network Op. Sys.	3
NET	4042	Network Servers & Service	3
NET	4043	Network Servers & Infrastructure	3
OR			
NET	3000	Fundamentals of Wireless Networks	3
NET	3062	Network Design	3
NET	4064	Advanced Network Design	3

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GE	CHEM	1103	Intro. to the Sciences: Chemistry	3
GE	COMM	1000	Public Speaking	3
GE	CTE	3060	Technical Writing	3
GE	MATH	1111	College Algebra	3
GE	PHYS	1104	Introduction to the Sciences: Physics	4

FREE ELECTIVES 6

MINIMUM TOTAL 120

¹⁰Competency 10 course

ELECTRONICS TECHNOLOGY

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (220)

Sem. Hours

MINOR REQUIREMENTS 22-24

Area 1				
*ET	1026	DC Circuit Analysis	4	
ET	1027	AC Circuit Analysis	4	
ET	1050	Digital Principles & Applications	4	
ET	2048	Active Electronic Devices	4	
MATH	1112	College Trigonometry, 2 or	2-3	
TECH	1042	Technical Mathematics, 3	2-3	
Upper-level (3000/4000) electives in electronics technology				4
Area 2				
NET	1060	Introduction to Networking	3	
NET	1061	Routers & Router Basics	3	
NET	2060	Switching Basics & Intermediate Routing	3	
NET	2061	WAN Technologies	3	
NET	4060	Advanced Network Routing	3	
*NET	4061	Remote Access	3	
NET	4062	Advanced Switching	3	
NET	4063	Network Support	3	

*This course has a prerequisite not listed in the program; see specific class listing in the catalog for additional requirements.

ENGINEERING TECHNOLOGY

Major, Bachelor of Science Degree (43-282)

The graduate with a Bachelor of Science degree in Engineering Technology will use the knowledge and skills obtained in the program to:

- Creatively identify, analyze and solve engineering related problems and improve processes in both technical and managerial realms.
- Demonstrate mastery of the techniques, skills and modern tools necessary for current engineering technology practices.
- Practice effective personal and technical communication in both oral and written forms.
- Demonstrate lifelong learning by applying current mathematic, scientific, engineering and technical knowledge to problem solving and by adapting to emerging applications in the engineering technology fields.

- Understand and practice professional work habits including a commitment to quality, timeliness, and continuous improvement.
- Understand the professional, ethical and social responsibilities of an engineering technologist.
- Understand the need for working in teams and demonstrate the ability to effectively work in teams as well as lead teams.
- Demonstrate a respect for and knowledge of contemporary professional, societal and global issues.

	Sem. Hours
MAJOR REQUIREMENTS	78-81
CORE Required Hours	31
CADD 1105 Basic AutoCAD	1
CADD 1110 Fundamentals of Drafting, 3 or	
CTE 1300 Introduction to Engineering Design, 3	3
ENGT 1500 Orientation to Engineering Technology	1
ENGT 1501 Seminar in Engineering Technology	2
ENGT 3520 Engineering Economy	3
¹⁰ ENGT 4110 Engineering Technology Problem Solving	3
ENGT 4580 Quality Systems Engineering	3
ET 1010 Applied Electricity	4
MATH 1112 College Trigonometry	2
SOT 3022 Internship in Technology	3
ENGT 1000 Principles of Engineering, 3 or	
ENGT 1120 Welding (required for Option 3), 3	3
CMGT 3320 Principles of Const. Mgt., 3 or	
INDM 4250 Project Management, 3	3
Choose one of the following options:	47-50
Option 1 Electronics Engineering Technology - 49	
ENGT 3530 Inspection & Quality Control	3
ENGT 4520 Robotics & Automation	3
ET 1026 DC Circuit Analysis	4
ET 1027 AC Circuit Analysis	4
ET 1050 Digital Principles & Applications	4
ET 2048 Active Elect. Devices	4
ET 2060 Micro: Th. & Appl.	4
ET 2065 Computer Programming for	
Electronics Technology	4
ET 3014 Analog-Digital Circuitry	4
ET 3017 Industrial Electronics	4
ET 3020 Circuit Analysis & Implementation	4
ET 3041 Communication Systems	4
Departmentally approved electives	3
Option 2 Mechanical Engineering Technology - (Prod. Des.) - 48	
ATM 4032 Hydraulics & Pneumatics	3
CADD 1170 Introduction Computer Aided Drafting	2
CADD 2120 Machine Drafting	3
CADD 4124 Geometric Dimensioning & Tolerancing	
Principles for Engineering Technology	3
CADD 4170 Computer-Aided Drafting & Design for	
Engineering Technology	3
CADD 4171 Production Design Drafting	3
CADD 4174 Machine Design	3
CMGT 2020 Statics	3
CMGT 3020 Applied Strength of Materials	3
ENGT 1510 Intro. to Mfg. Processes	3
ENGT 2040 Engineering Materials Science	4
ENGT 2530 Machine Tool Technology	3
ENGT 2600 Lean Enterprises	3
ENGT 3530 Inspection & Quality Control	3
ENGT 3562 Computer Numerical Control (CNC)	3
Departmentally approved electives	3
Option 3 Industrial Engineering Technology - 50	
ATM 4032 Hydraulics & Pneumatics	3
ET 1050 Digital Principles & Applications	4
ENGT 1510 Intro Manufacturing Processes	3
ENGT 2040 Engineering Materials Science	4
ENGT 2530 Machine Tool Technology	3
ENGT 2600 Lean Enterprises	3
ENGT 3120 Advanced Welding Technology I	3
ENGT 3530 Inspection & Quality Control	3

ENGT 3562 Computer Numerical Control (CNC)	3
ENGT 4520 Robotics & Automation	3
ENGT 4590 Computer Integrated Manfactng (CIM)	3
ENGT 4750 Lean Six Sigma	3
INDM 4240 Facilities Engineering	3
CADD 2120 Machine Drafting	3
CADD 4124 Geometric Dim. & Tolerancing	
Principles for Eng. Tech.	3
Departmentally approved electives	3
Option 4 Civil Engineering Technology - 47-49	
CADD 2160 Structural Drafting	3
CADD 2171 Introduction to MicroStation	3
CADD 3150 Civil Drafting	3
CMGT 2020 Statics	3
CMGT 2325 Project Cost Estimating	3
CMGT 2340 Surveying & Construction Layout	3
CMGT 3020 Applied Strength of Materials	3
EASC 2100 Engineering Geology	4
ENGT 4120 Hydrology & Drainage Design	3
ENGT 4140 Soils & Foundation Design	3
ENGT 4160 Transportation Systems Design	3
Choose one of the two listed emphasis areas:	13-15
<i>Infrastructure Project Administration</i>	
CMGT4310 Construction Safety	3
CMGT4380 Heavy Construction:	
Methods & Materials	3
ENGT 2040 Engineering Material Science	4
ENGT 4180 Water & Wastewater Systems Design	
<i>Design</i>	
CADD 3175 Advanced Microstation	3
CADD 4150 Applied Civil Design/Drafting	3
CADD 4162 Commercial Architec D&D (BIM)	3
CMGT3350 Building Structures:	
Methods & Materials	3
GEOG4220 Geographic Information Systems I	3

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GECHEM 1103 Intro. to the Sciences: Chemistry	3
GECOMM 1000 Public Speaking	3
GECTE 3060 Technical Writing	3
GEEASC 1004 Introduction to Geology (w/lab). (Option 4)	4
GEECON 1010 Principles of Macroeconomics	3
GEMATH 1131 Applied Calculus	3
GEPHYS 1101 College Physics I	4

MINIMUM TOTAL 120-123

¹⁰Competency 10 course

FASHION: TEXTILES AND CLOTHING IN BUSINESS

Major, Bachelor of Science Degree
(43-118)

The graduate with a Bachelor of Science degree with a major in Fashion: Textiles and Clothing in Business will use the knowledge and skills obtained in the program to:

- Communicate and collaborate effectively in both individual and team settings in a creative environment.
- Demonstrate professional qualities that are socially, ethically and responsibly moral in a diverse society.
- Use technology to create and present materials, organize and analyze data, and manage the production of soft goods from development through retail consumption.
- Demonstrate awareness of constant changes within the global fashion market and the need for sustainable materials in textile products.
- Interact effectively with co-workers, supervisors and customers to solve problems that lead to effective management and leadership.

Sem. Hours

MAJOR REQUIREMENTS 60

ACCT	2101	Principles of Financial Accounting	3
FAME	1400	Principles of Fashion Merchandising	3
FAME	1445	Freshmen Seminar in Fashion	1
FAME	1450	Fund. of Apparel Design & Construction	3
FAME	2425	Apparel Quality Analysis	3
FAME	2440	Professional Work Experience	3
FAME	2442	Textile Science	3
FAME	2445	Sophomore Seminar in Fashion	1
FAME	3415	Product Development for Consumers	3
FAME	3430	Professional Image Management	3
GFAME	3434	Fashion History of Costume	3
FAME	3435	Fashion Buying	3
FAME	3440	Fashion Promotion & Visual Merchandising	3
GFAME	3442	Sustainability for Consumer Products	3
FAME	3445	Junior Seminar in Fashion	1
FAME	4410	Materials for Interior Furnishings	3
FAME	4425	Fashion Entrepreneurship	3
FAME	4433	International Apparel Technology	3
¹⁰ FAME	4445	Senior Seminar in Fashion & Apparel Merchandising	3
FAME	4490	Internship in Fashion & Apparel Merchandising	3
Electives from the following:			6
FAME	2440	Professional Work Experience (up to 3 additional hours)	3
FAME	2450	Adv. Apparel Design & Construction	3
FAME	4450	Special Problems in Textiles and Clothing	3
FAME	4490	Internship in Fashion & Apparel Merchandising (up to 3 additional hours)	3
GRAP	2030	Pre-Media Appl. - Adobe Illustrator	3
GENERAL EDUCATION REQUIREMENTS 36			

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GCDF	1010	Individual and Family Relationships	3
GFAME	3434	Fashion History of Costume	(3)
GFAME	3442	Sustainability for Consumer Products	(3)

MINOR IN MARKETING, 18 or

MINOR IN BUSINESS ADMINISTRATION, 18 18

FREE ELECTIVES 6

MINIMUM TOTAL 120

¹⁰Competency 10 course

FASHION MERCHANDISING

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (327)

Sem. Hours

MINOR REQUIREMENTS 21

FAME	1400	Principles of Fashion Merchandising	3	
FAME	2442	Textile Science	3	
FAME	3430	Professional Image Management	3	
Departmentally approved electives				12

GRAPHIC TECHNOLOGIES

Major, Bachelor of Science Degree (43-599)

The graduate with a Bachelor of Science Degree with a major in Graphic Technologies will use the knowledge and skills obtained in the program to:

- Demonstrate effective communication skills.
- Exhibit the photo imaging/design skills and knowledge needed for a successful career as a Graphic Communications (GC) professional.
- Exhibit the technical print-related skills and knowledge needed for a

- successful career as a GC professional.
- Demonstrate an understanding of web and digital media necessary for a successful career as a GC professional.
- Exhibit the managerial skills and knowledge needed for a successful career as a GC professional.
- Demonstrate an understanding of industry structure and career opportunities in GC.
- Exhibit professional behaviors, environmental responsibility, and safe work practices.
- Understand and apply scientific and mathematical concepts needed for a successful career as a GC professional.

Sem. Hours

MAJOR REQUIREMENTS 76

CORE REQUIREMENTS 55

GRAP	1000	Orientation to Graphic Technologies	1
GRAP	1010	Fundamentals of Graphic Processes	3
GRAP	2030	Pre-Media Applications - Adobe Illustrator	3
GRAP	2031	Pre-Media Applications - Adobe Photoshop	3
GRAP	2032	Pre-media Applications - Adobe InDesign	3
GRAP	2035	Digital Workflow Applications	3
GRAP	2610	Principles of Web Media	3
GRAP	3016	Experiences in Graphic Production	1
GRAP	3024	Flexographic Processes	3
GRAP	3030	Digital Output Technologies	3
GRAP	3034	Lithographic Processes	3
GRAP	3040	Screen & Specialty Printing	3
GRAP	3043	Finishing & Distribution	3
GRAP	3045	Materials & Meth. in Graphic Technologies	3
GRAP	3051	Graphic Technologies Management	3
GRAP	4038	Color Management	3
¹⁰ GRAP	4053	Production Analysis	3
GRAP	4095	Senior Seminar in Graphic Technologies	1
ART	2610	Introduction to Graphic Design & Illustration	3
SOT	3022	Internship in Technology	1
MGT	3315	Management of Organizations, 3 or	
INDM	4250	Project Management, 3	3

Choose one of the following options 21

Option 1 Print Media Technology Management - 21

GRAP	3057	Quality Control for Print Media	3
GRAP	4051	Print Production	3
GRAP	4055	Estimating & Costing for Print Media	3
MGT	3325	Business Communications	3
Select from the following 9			
#ACCT	2101	Principles of Financial Accounting	3
* #BLAW	2720	Legal Environment of Business	3
BLAW	2750	Legal & Ethical Decision Making in the Workplace	3
BLAW	3721	Law of Business Transactions	3
* #ECON	1010	Principles of Macroeconomics	3
GRAP	3036	High Volume & Publication Prod.	3
INDM	4220	Human Factors Engineering	3
INDM	4260	Organizational Dynamics	3
* #MGT	3315	Management of Organizations	3
* #MKT	3405	Marketing Policy	3
*MKT	3420	Principles of Advertising	3
*MKT	3430	Professional Sales	3
*MKT	3480	Consumer Behavior	3
SAFE	3000	Prin. of Acc. Caus. & Prev.	3
SAFE	3120	Industrial Hygiene	3
SAFE	3430	Industrial Hazard Control	3

Completion of these courses will earn a Minor in Business Administration
* Completion of these courses will earn a Minor in Marketing

Option 2 Graphic Design Technology - 21

Select from the following

ART	2620	Typography	3
ART	3620	Logo/Trademark Design	3
ART	3640	Package Design	3
ART	3660	Publication Design	3
COMM	3625	Design & Layout for Publications	3

COMM 3640 Integrated Strategic Communication . . . 3
 COMM 4510 Magazine Design & Production 3
 GRAP 2620 Web Media Applications 3
 GRAP 2630 Web Authoring 3
 GRAP 2670 Web Media Animation 3
 GRAP 3036 High Volume & Publication Prod. 3
 GRAP 4051 Print Production 3
 MKT 3405 Marketing Policy 3
 MKT 3420 Principles of Advertising 3

Option 3 Web Media Technology - 21

GRAP 2620 Web Media Applications 3
 GRAP 2630 Web Authoring 3
 GRAP 2670 Web Media Animation 3

Select from the following 12

ART 2620 Typography. 3
 ART 3660 Publication Design 3
 ART 4610 Interactive Design. 3
 ART 4620 Motion Design. 3
 COMM2410 Multimedia Production. 3
 COMM2411 Audio Production 3
 COMM2412 Introduction to Digital Video. 3
 CS 1100 Computer Programming I. 3
 CS 3120 Web Programming. 3
 MGT 3325 Business Communications 3
 MUS 1430 Introduction to Audio Production . . . 0.5
 MUS 1440 Introduction to MIDI 0.5

Option 4 Packaging Technology - 21

CADD 1105 Basic AutoCAD 1
 CADD 1110 Fundamentals of Drafting 3
 ENGT 1012 Global Production Technology 2
 GRAP 1700 Introduction to Packaging 3
 GRAP 4051 Print Production 3

Select from the following 9

ART 3620 Logo/Trademark Design 3
 ART 3640 Package Design. 3
 ATM 3010 Transportation Systems. 3
 COMM3640 Integrated Strategic Communication. 3
 ENGT 2040 Engineering Material Science. . . . 4
 MKT 3405 Marketing Policy 3
 MKT 3420 Principles of Advertising. 3
 SAFE 3000 Prin. of Acc. Caus. & Prev. 3
 SAFE 4215 Transportation & Storage of Hazardous Materials 3

Option 5 Photography 21

Student will complete the requirements for the Photography Minor or approved photography courses in place of the 21 hour option requirement for this major.

GENERAL EDUCATION REQUIREMENTS 39-42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GECTE 3060 Technical Writing. 3
 GECIS 1600 Business Information Management. 3
 GECON 1010 Principles of Macroeconomics (if chosen in Option 1) (3)

FREE ELECTIVES 2-5

MINIMUM TOTAL 120

¹⁰Competency 10 course

GRAPHICS

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (147)

Sem. Hours

MINOR REQUIREMENTS 20

Electives from the following 6-7

CADD 1105 Basic AutoCAD. 1
 CADD 1110 Fundamentals of Drafting 3
 GRAP 1010 Fundamentals of Graphic Processes. 3
 PHOT 1203 Introduction to Photography, 3 OR
 PHOT 1210 Foundations of Professional Phot., 3 and
 PHOT 1211 Image Critique, 1 3-4
 Departmentally approved electives in GRAP,
 CADD and/or PHOT** 13-14

**Must include at least one upper-level (3000/4000) course to meet graduation requirements.

INNOVATIVE TECHNOLOGIES

Major, Bachelor of Science Degree (43-588)

The graduate with a Bachelor of Science Degree in Innovative Technologies program will use the knowledge and skills obtained in the program to:

- Apply mathematical, statistical and scientific principles to technological situations to maintain and enhance the work within business or industry.
- Use the computer proficiently as an essential tool in planning, monitoring, and controlling of work within business or industry.
- Understand management concepts in the areas of Production Management, Product Research and Development, or Robotics and Automation.
- Understand and utilize core competencies in design and drafting, technical writing, quality systems, project management and safety leadership.
- Demonstrate emphasis area competencies in: Production Management (hydraulics, geometric dimensioning and tolerancing, machine tool technology, engineering economy, inspection, computer numerical control, robotics, automation, legal aspects of industry); Product Research and Development (production design drafting, engineering material science, simulation technology, entrepreneurship, quality control management, industrial statistics, research design and analysis); or Robotics and Automation (computer numerical control, robotics, automation, applied electricity, digital principles, industrial electronics).
- Communicate effectively in both individual and team situations using both oral and written communications
- Utilize critical thinking skills to solve problems in both individual and team situations.
- Areas of specialization: Production Management, Product Research and Development, Robotics and Automation.

Sem. Hours

MAJOR REQUIREMENTS 76

CORE REQUIREMENTS 32

ACCT 2101 Principles of Financial Accounting 3
 CADD 1105 Basic AutoCAD 1
 CADD 1110 Fundamentals of Drafting 3
 CADD 1170 Intro. to Computer-Aided Drafting 2
 ENGT 1012 Global Production Technology 2
¹⁰ENGT 4110 Engineering Technology Problem Solving . . . 3
 ENGT 4580 Quality Systems Engineering 3
 INDM 4210 Industrial Management 3
 INDM 4250 Project Management 3
 INDM 4260 Organizational Dynamics 3
 SAFE 3070 Safety Leadership. 3
 SOT 3022 Internship in Technology 3

Choose one of the following options 44

Option 1: Production Management

ATM 4032 Hydraulics & Pneumatics 3
 CADD 2120 Machine Drafting. 3
 CADD 4124 Geometric Dimensioning & Tolerancing Principles for Engineering Technology 3
 CADD 4171 Production Design Drafting. 3
 ENGT 2040 Engineering Material Science. 4
 ENGT 2530 Machine Tool Technology 3
 ENGT 3520 Engineering Economy 3

ENGT	3530	Inspection & Quality Control	3
ENGT	3562	Computer Numerical Control (CNC)	3
ENGT	4520	Robotics & Automation	3
ET	1010	Applied Electricity	4
INDM	4015	Legal Aspects of Industry	3
INDM	4220	Human Factors Engineering	3
INDM	4240	Facilities Engineering	3
Option 2: Product Research and Development			
CADD	2120	Machine Drafting	3
CADD	4171	Production Design Drafting	3
ENGT	2040	Engineering Material Science	4
ENGT	2530	Machine Tool Technology	3
ESE	3710	Entrepreneurial Business Planning	3
INDM	4220	Human Factors Engineering	3
INDM	4230	Lean & Quality Management	3
INDM	4280	Industrial Statistics	3
PSY	1100	General Psychology	3
PSY	2110	Research Design & Analysis I	4
PSY	2120	Research Design & Analysis II	4
SOT	4000	Special Projects in Technology	3
Free electives			5

Option 3: Robotics and Automation

ENGT	3562	Computer Numerical Control (CNC)	3
ENGT	4520	Robotics & Automation	3
ET	1010	Applied Electricity	4
ET	1050	Digital Principles & Application	4
ET	3017	Industrial Electronics	4
Free electives**			26

** Single Minor / Multiple Minors can replace the free elective area.

Any minor can work with the technology major. By utilizing general education/major/minor course overlaps, several minor combinations can be obtained with careful advisement and course planning. For example, the following minors may be combined for more than one in the overall 25 hrs: Agriculture, Automotive, Aviation, Business Administration, Construction Management, Criminal Justice, Economics, Electronics (Area 1 or 2), Fashion Merchandising, Graphics, Manufacturing, Photography, and Safety.

GENERAL EDUCATION REQUIREMENTS 39-42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE	CHEM	1103	Intro. to the Sciences: Chemistry	3
GE	COMM	1000	Public Speaking	3
GE	CTE	3060	Technical Writing	3
GE	ECON	1010	Principles of Macroeconomics	3
GE	GEOG	3201	The Cultural Landscape	3
GE	MATH	1111	College Algebra	3
GE	PHYS	1104	Intro. to the Sciences: Physics	4
GE	PSY	1100	General Psychology (Option 2)	(3)

FREE ELECTIVES 2-5

MINIMUM TOTAL 120

¹⁰Competency 10 course

MANUFACTURING

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor (153)

Sem. Hours

MINOR REQUIREMENTS 22

ENGT	2040	Engineering Material Science	4
ENGT	2530	Machine Tool Technology	3
ENGT	3562	Computer Numerical Control (CNC)	3
Electives			12
ENGT	1510	Intro. Manufacturing Processes	3
ENGT	2515	Applied Manufacturing Processes	3

ENGT	3530	Inspection & Quality Control	3
ENGT	4520	Robotics & Automation	3
ENGT	4590	Computer Integrated Manf. (CIM)	3
CADD	1105	Basic AutoCAD	1
CADD	1110	Fundamentals of Drafting	3
CADD	1170	Intro. Computer Aided Drafting	2

PHOTOGRAPHY

Minor for a Bachelor's Degree

UCM does not confer teacher certification for this minor. (148)

Sem. Hours

MINOR REQUIREMENTS 20-21

PHOT	1210	Foundations of Professional Photography	3
PHOT	1211	Image Critique	1
PHOT	2210	Studio Photography	3
PHOT	2250	Portrait Photography	3
Electives in photography			10-11

Must include at least one upper-level (3000/4000) course to meet graduation requirements.

PROFESSIONAL PHOTOGRAPHY

Major, Bachelor of Science Degree

(43-587)

The graduate with a Bachelor of Science degree in Professional Photography will use the knowledge and skills obtained in the program to:

- Demonstrate visual literacy.
- Recognize and demonstrate professional photographic ethics.
- Demonstrate self-motivated learning behavior.
- Embrace technological change.
- Recognize qualities of existing light and be able to control lighting.
- Apply accepted principles and practices for managing information, process, systems, materials, finances, and human resources in the photographic industry. Specify the affective attributes and technical aspects of color.
- Demonstrate communication, conceptual, and creative skills.
- Demonstrate the necessary technical and professional skills associated with creating and producing high quality images on demand.
- Use appropriate procedures to meet the specifications and deadlines of discerning clientele.
- Produce and maintain a dynamic portfolio relevant to career goals.
- Select and use appropriate equipment for specific purposes.

Sem. Hours

MAJOR REQUIREMENTS 50

PHOT	1210	Foundations of Professional Photography	3
PHOT	1211	Image Critique	1
PHOT	1216	Photographer's Forum 1	1
PHOT	2216	Photographer's Forum 2	1
PHOT	3216	Photographer's Forum 3	1
PHOT	4216	Photographer's Forum 4	1
Minimum of one (1) semester hour of Forum per academic year.			

PHOT	1230	Digital Imaging	3
PHOT	2200	Editorial Photography	3
PHOT	2210	Studio Photography	3
PHOT	2215	History of Photography	3
PHOT	2220	Digital Workflow	3
PHOT	2230	Color Imaging	3
PHOT	2250	Portrait Photography	3
PHOT	3260	Digital Media	3
PHOT	4230	Business Management for Photography	3
¹⁰ PHOT	4270	Portfolio	3

Electives from the following 12

PHOT	2240	Nature Photography	3
PHOT	2270	Darkroom Photography	3
PHOT	3220	Advanced Digital Imaging	3
PHOT	3255	Location & Event Photography	3
PHOT	3270	Creative Photography	3
PHOT	3280	Advanced Studio	3
PHOT	3290	Architectural Photography	3
PHOT	4215	Critique of Contemporary Photography	3

PHOT	4240	Investigative Photography	3
PHOT	4250	Advanced Portrait Photography	3
PHOT	4260	Photography, Advertising & Society	3

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements.

FREE ELECTIVES 28

MINIMUM TOTAL 120

¹⁰Competency 10 course

SYSTEMS ENGINEERING TECHNOLOGY

Major, Bachelor of Science Degree

(43-879)

This program is offered in cooperation with the Metropolitan Community College and the Lee's Summit R-7 School District. The program is offered exclusively at the Central Summit Campus in Lee's Summit, Missouri.

Program Outcomes

The graduate with a Bachelor of Science degree in Systems Engineering Technology will use the knowledge and skills obtained in the program to:

- Understand and perform systems administration.
- Plan, design, create and manage databases.
- Develop and implement computer networks to include remote access, web services and security.
- Create design solutions for the interface of hardware and software.
- Troubleshoot hardware, software and networks.
- Perform disaster recovery.
- Develop an awareness of safety, security and ethics.

MAJOR REQUIREMENTS Sem. Hours 55

GE CIS	1600	Business Information Management	3
CIS	2605	Programming With Visual C#	3
CIS	2665	Principles of Data Communication & Local Area Networking	3
CIS	3650	Database Management Systems	3
CIS	3665	Data Communication Technologies	3
CIS	4610	Special Projects	3
CIS	4665	Data Communication & Distributed Data Processing	3
CIS	4680	Data Resource Management	3
CIS	4685	Network Planning, Design & Security	3
NET	1060	Introduction to Networking Basics	3
NET	1061	Routers & Routing Basics	3
NET	2060	Switching Basics & Intermediate Routing	3
NET	2061	WAN Technologies	3
NET	3068	Network Security I	4
NET	4060	Advanced Network Routing	3
NET	4062	Advanced Switching	3
¹⁰ NET	4063	Network Support	3
SOT	3022	Internship in Technology	3

GENERAL EDUCATION REQUIREMENTS 42

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. The following general education classes are required by this major:

GE COMM	1000	Public Speaking	3
GE MATH	1111	College Algebra	3
GE BTE	1210	Essentials of Managing Information	2

Transfer Hours 23

MINIMUM TOTAL 120

¹⁰Competency 10 course

TECHNOLOGY (transfer program)

Major, Bachelor of Science Degree

(43-329)

ALTERNATIVE PROGRAM OF STUDY FOR TRANSFER STUDENTS

The School of Technology has created a sequence of courses leading to a Bachelor of Science in Technology (43-329) that is

specifically designed for transfer students. The student learning outcomes for this transfer program are identical to those listed previously for the Technology major/ program. This alternative program is not limited to specific two-year colleges or universities. The School of Technology is committed to designing a program of study for students who have earned a technology-related Associate in Applied Science or Associate in Science Degree from an accredited community college or technical institute in a field of study related to the School of Technology (Associate of Arts degrees are accepted with individualized review of the student's course history). In order for the student to meet career objectives, the School of Technology has selected a group of core courses which all students will complete. In addition, options of specialized study will be developed with a faculty advisor. Details of the program of study are outlined below.

Sem. Hours

MAJOR REQUIREMENTS 75-83

Associate Degree Technology Courses 38

A technology related Associate in Applied Science or Associate in Science Degree from an accredited community college or technical institute in a field of study related to the School of Technology will be accepted (Associate of Arts degrees are accepted with individualized course evaluations). Thirty-eight semester hours of the degree transferred should apply towards the major and the remainder towards General Education The General Education requirements transferred must be equivalent to UCM's requirements. NOTE: All **core courses** are offered online.

Core 24

GE CTE	3060	Technical Writing	3
¹⁰ ENGT	4110	Engineering Technology Problem Solving	3
ENGT	4580	Quality Systems Engineering	3
INDM	4010	Current Issues in Industry	3
INDM	4015	Legal Aspects of Industry	3
INDM	4210	Industrial Management	3
INDM	4260	Organizational Dynamics	3
SAFE	3000	Prin. of Acc. Caus. & Prev., 3 or	
SAFE	3120	Industrial Hygiene, 3	3

Elect one of the following options 13-21

Option 1: Management

INDM	4220	Human Factors Engineering	3
INDM	4230	Lean & Quality Management	3
INDM	4240	Facilities Engineering	3
INDM	4250	Project Management	3
SOT	3022	Internship in Technology, 1-3 or	
SOT	4000	Special Projects in Technology, 1-3	1-3

Option 2: Construction

CMGT	3320	Prin. of Construction Mgt.	3
CMGT	3330	Building Codes & Code Admin.	3
CMGT	4310	Construction Safety	3
INDM	4250	Project Management	3
SOT	3022	Internship in Technology	1

Option 3: Electronics

NET	3062	Network Design	3
NET	4060	Advanced Routing	3
NET	4062	Advanced Switching	3
NET	4064	Advanced Network Design	3
NET	4100	Network Device Configuration	3

Option 4: Manufacturing

ENGT	3520	Engineering Economy	3
ENGT	3530	Inspection & Quality Control	3
ENGT	3562	Computer Numerical Control (CNC)	3
ENGT	4520	Robotics & Automation	3
ENGT	4590	Computer Integrated Manuf. (CIM)	3
INDM	4250	Project Management	3

Option 5: Quality Systems

ENGT	3520	Engineering Economy	3
ENGT	3530	Inspection & Quality Control	3
INDM	4230	Lean & Quality Management	3
INDM	4280	Industrial Statistics	3
SOT	4000	Special Projects in Technology	3

Option 6: Virtual Media

COMM	4250	The Law & Digital Media	3
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COMM 4475	New Media Technologies	3
ESE 3710	Entrepreneurial Business Planning	3
INDM 4250	Project Management	3
SOT 3022	Internship in Technology	1-3
SOT 4000	Special Projects in Technology	3
SOT 4570	Computer Graphics	3

Option 7: General Technology

The student, working with a faculty advisor, will select a minimum of 13 sem. hours of upper-level (3000/4000) course work from program areas in the School of Technology.

GENERAL EDUCATION REQUIREMENTS 39

All students must complete a minimum of 42 credit hours in general education. See pages 46-49 for full listing of requirements. Hours listed in () are counted in the major or other hours and not in the general education hours. The following general education classes are required by this major:

GE/CTE 3060	Technical Writing	(3)
GE/MATH 1111	College Algebra	3
GE/BTE 1210	Essentials of Managing Information	2
GE/PHYS 1104	Intro. to the Sciences: Physics	4
GE/ECON 1010	Principles of Macroeconomics	3

The number of General Education courses needed at UCM will depend on courses transferred.

FREE ELECTIVES 0-6

MINIMUM TOTAL 120-122

¹⁰Competency 10 course

TECHNOLOGY

Certificate (10-565)

The certificate program in Technology is designed by the student and a faculty advisor, based upon the curriculum outline below. Each program of study has a significant component of advanced technology study in a high-demand area of occupational preparation. The student may choose to use this program as career preparation for entry into employment, or the student may supplement a baccalaureate degree in a technology area with this area of study.

	Sem. Hours
Core Courses	8-10
GE/COMM 1000	Public Speaking, 3 or
GE/THA 1100	Oral Interpretation, 3 3
GE/MATH 1111	College Algebra, 3 or
MATH 1112	College Trigonometry, 2 or
GE/MATH 1131	Applied Calculus, 3, or
GE/MATH 1620	Contemporary Mathematics, 3 2-3
GE/BIOL 1003	Intro. Sciences: Ecology, 3 or
GE/BIOL 1004	Intro. Sciences: Ecology (w/lab), 4 or
GE/BIOL 1005	Intro. Environmental Science, 3 or
GE/CHEM 1103	Intro. Sciences: Chemistry, 3 or
GE/CHEM 1104	Intro. Sciences: Chemistry (w/lab), 4 or
GE/EASC 1004	Introduction to Geology (w/lab), 4 or
GE/PHYS 1103	Intro. Sciences: Physics, 3 or
GE/PHYS 1104	Intro. Sciences: Physics (w/lab), 4, 3-4

Technical Electives 11-13

The student will complete 11-13 semester hours of approved technical electives from one or more of the high-demand areas of occupational preparation designated by the State of Missouri. This course work will primarily come from the 1,000 and 2,000 levels of technical content. In some individual cases, advanced course work may be required.

MINIMUM TOTAL 21

SECTION III

Course Descriptions

The following are course descriptions of all classes taught at the undergraduate level. Course descriptions can also be found online in MyCentral.

Information regarding course availability is subject to change. Please see the academic department for the most current availability information. Course offerings are also available online in MyCentral prior to the start of registration for each semester.

Sample:

SMPL 3920 Human Resources (3) Issues related to the effective management of people within organizations. Prerequisite: SMPL 3315 or concurrently. FA, SP, SU.

Course descriptions include the prefix of the course (SMPL), the course number (3920), the course title (Human Resources), and the number of credit hours (3) the course is worth. Following this information is a brief description of the course and then any prerequisites (if applicable). Prerequisites must be completed prior to enrollment in the course, unless concurrent enrollment is listed as an option.

Some course descriptions will also include the semester(s) the course is offered (FA = Fall; SP = Spring; SU = Summer). This information is not available for all courses and is subject to change. If the course is occasionally available as an online course it will be designated "ONL", but students will need to refer to the course schedule in MyCentral for online availability. If the course is only offered as an online course it will be designated "OLO".

Some course descriptions may also include fee information such as "An additional fee is associated with this course" or a level restriction such as "**Not available for graduate credit."

Course Offerings Legend

- FA – Fall semester
- SP – Spring semester
- SU – Summer semester
- FA(E) – Fall, in even numbered years only
- SP(E) – Spring, in even numbered years only
- SU(E) – Summer, in even numbered years only
- FA(O) – Fall, in odd numbered years only
- SP(O) – Spring, in odd numbered years only
- SU(O) – Summer, in odd numbered years only
- AN – As needed, see department or MyCentral for more information
- HYB – Sometimes offered as hybrid (partiallyt online/partially in class); see department or MyCentral for more information
- ONL – Sometimes offered online; see department or MyCentral for more information
- OLO – Taught only as an online course

GE - General Education course

SUSTAINABILITY COURSES – Those courses with environmental, economic, and/or social sustainability as a major objective are designated by a leaf symbol.

Those courses designated as Professional Education Courses for educator certification purposes are designated by a book symbol. Students must earn at least a C grade, and maintain at least a 2.5 GPA in all Professional Education Courses.

ACCT - Accounting

In addition to any course prerequisites listed for the courses below, the Harmon College of Business and Professional Studies also enforces a course leveling prerequisite. This means that freshmen (those who have earned 0-29.5 semester hours of college credit) may enroll in 1000 level courses only, sophomores (completed 30-59.5 semester hours) may enroll in 2000 or 1000 level courses, juniors (completed 60-89.5 semester hours) may enroll in 3000, 2000 or 1000 level courses and seniors (all students who have earned 90 semester hours) may enroll in 4000 level courses or below.

ACCT 2100 Survey of Accounting (3) Study of elementary financial and managerial accounting to include the preparation and use of accounting statements and use of accounting information for managerial decisions. Course may not be substituted for ACCT 2101 and/or ACCT 2102. Not available to students with credit in ACCT 2102. FA, SP.

ACCT 2101 Principles of Financial Accounting (3) Fundamental principles of financial accounting. The preparation and use of financial accounting records and statements for business organizations. FA, SP, SU.

ACCT 2102 Principles of Managerial Accounting (3) Development and use of cost and managerial accounting information for management control and decision making. Prerequisite: ACCT 2101 and MATH 1111. FA, SP, SU.

ACCT 3110 Intermediate Financial Accounting I (3) Continuing the study of the accounting cycle, preparation of the financial statements, and an introduction to accounting theory and the conceptual framework. Prerequisites: ACCT 2101, ACCT 2102 or concurrently and a minimum GPA of 2.65. Grade of C or better for all prerequisites.

ACCT 3111 Intermediate Financial Accounting II (3) Financial accounting theory and practice applied to selected topics with emphasis on assets and application of generally accepted accounting principles. Prerequisites: ACCT 2101 and ACCT 3110. Grade of C or better for all prerequisites. FA, SP, SU.

ACCT 3112 Intermediate Financial Accounting III (3) Continuation of financial accounting theory and practice applied to selected topics with emphasis on equities and application of generally accepted accounting principles. Prerequisite: ACCT 3111 with a grade of C or better. FA, SP, SU.

ACCT 3120 Cost and Managerial Accounting (3) Application of accounting for managerial decision making, financial reporting and control for business enterprises. Prerequisites: ACCT 2102 and FIN 2801. Grade of C or better for all prerequisites. FA, SP.

ACCT 3130 Introduction to Income Tax (3) Federal income tax principles with focus on individuals. Course covers items of income (and exclusions from income), deductions (and relevant limitations), calculation of federal income tax, and credits against tax. Principles are applied, directly or indirectly, to everyday business transactions which a student will encounter in his/her accounting, tax or general business career. Prerequisite: ACCT 3111 with a grade of C or better. May be taken concurrently with ACCT 3112. FA, SP, SU.

ACCT 3135 Internship in Accounting (1-6) Opportunity for students to gain theoretical knowledge and practical experience within a particular field of specialization. May be taken for pass/fail credit only. Prerequisites: A declared Accounting major; Admission to the B.S.B.A. program; 60 semester hours; and overall GPA of 2.65 or above. FA, SP, SU.

ACCT 3160 Accounting Information Systems (3) The integration of information flows of various segments of a business into an information system of the total organization. Emphasis areas include accounting aspects of data processing, system security controls, and documentation. Prerequisites: ACCT 3110 and ACCT 3111. Grade of C or better for all prerequisites. FA, SP.

ACCT 4100 Advanced Accounting I* (3) Selected topics including business combinations, consolidations, financial accounting and reporting practices; and accounting and reporting for non-profit entities. Prerequisites: ACCT 3112 with a grade of C or better and Admission to the B.S.B.A. program or admission to the graduate school. *Not available for graduate credit. FA, SP, SU.

ACCT 4105 Auditing (3) Study of theory and practice relating to attestation engagements, professional liability and ethics. Prerequisites: ACCT 3112, ACCT 3120, and ACCT 3160 or concurrently; Admission to the B.S.B.A. program or admission to the graduate school. Grade of C or better for all prerequisites. FA, SP.

ACCT 4115 Financial Statement Analysis (3) Allows students to gain financial statement analytical perspectives required of credit and equity analysts and others impacted by financial statements. Prerequisites: FIN 3850 with a grade of C or better, Admission to the B.S.B.A. program or graduate status. FA, SP.

ACCT 4130 Advanced Income Tax* (3) Continuation of federal income tax principles with focus on business entities. Consideration of special treatment received by various business entities, including sole proprietorships, partnerships, corporations estates and trusts. Major topics covered are business income, deductions, losses and loss limitations, property transactions and comparative forms of doing business. Prerequisites: ACCT 3130 with a grade of C or better, Admission to the B.S.B.A. program or admission to the graduate school. *Not available for graduate credit. FA, SP.

ACCT 4160 Information Systems Audit and Control (3) The course covers types of IT auditing, evaluating audit risks, internal control models and processes, IS audit planning and management, and effective communication techniques. Prerequisite: CIS 2665 and ACCT 3160

ACCT 4165 Special Projects in Accounting (1-3) Individualized or group study under the supervision of departmental faculty. *May be repeated for a maximum of 6 semester hours.* Prerequisite: consent of instructor. AN.

AE - Academic Enrichment

AE 0101 Writing Essentials I - TRIO-SSS (3) Review of basic writing techniques to construct meaningful sentences and develop them into effective paragraphs. Prerequisite: acceptance into TRIO Student Support Services (SSS). Not applicable to graduation requirements. FA.

AE 0131 Math I - TRIO-SSS (3) Review of fractions and decimals with an introduction to negative numbers and linear equations. Prerequisite: acceptance into TRIO Student Support Services (SSS). Not applicable to graduation requirements. FA, SP.

AE 0800 Special Projects (0.5, 1, 1.5, 2, 3) Individual or group study of material in special areas of interest. *May be repeated for a maximum of 6 semester hours.* FA, SP.

AE 1000 Introduction to College Writing (3) Classroom and tutorial instruction in the process of developing paragraphs and longer essays with emphasis placed on mechanics, usage, and sentence structure. FA, SP.

AE 1012 Speed Reading (1) Principles and applications of speed reading and comprehension techniques to textbooks and other types of reading materials. Inquire at Learning Center, Humphreys 110. FA, SP, SU.

AE 1030 Introductory Algebra (3) Designed to review or improve basic algebra skills. Includes integers, equations, inequalities, polynomials, factoring, quadratic equations, graphing linear equations and work with word problems. FA, SP, SU.

AE 1102 Writing Essentials II - TRIO-SSS (3) Application of college writing techniques in paragraph and essay development to prepare for Composition I and other college writing assignments. Prerequisite: acceptance into TRIO Student Support Services (SSS) and AE 0101 or demonstrated skill level. This course substitutes for AE 1000 and, therefore, meets Planned Placement requirements. FA, SP.

AE 1112 University Study Techniques - TRIO-SSS (3: 3 lecture, 0 lab) Emphasis on increasing general and academic vocabularies, improving textbook comprehension and critical thinking, and developing college-level study habits applicable to most college courses. Prerequisite: acceptance into TRIO Student Support Services (SSS). This course substitutes for AE 1820 and, therefore, meets Planned Placement requirements. FA, SP.

AE 1125 College Success Strategies - TRIO-SSS (1) Focus on the behaviors, attitudes, and beliefs that impact college success. Prerequisite: acceptance into TRIO Student Support Services (SSS) and AE 1400 or consent. FA, SP.

AE 1132 Math II - TRIO-SSS (3) Application of math skills including graphing, polynomials, factoring, and quadratic equations to prepare for Intermediate Algebra. Prerequisite: acceptance into TRIO Student Support Services (SSS) and AE 0131 or demonstrated skill level. This course substitutes for AE 1030 and, therefore, meets Planned Placement requirements. FA, SP.

AE 1240 LSAT Test Preparation (1) This course provides students with information about and practice with the types of questions asked on the LSAT. Strategies for successfully taking this test are also presented. Audit or P/F credit only. FA, SP.

AE 1250 GRE Test Preparation (1) This course is designed to help students prepare to take the GRE by becoming more familiar with the adaptive test

format used by GRE. Students will be provided with tips and strategies for answering the antonym, analogy, and reading comprehension questions. Time will also be spent practicing for the two writing samples now added to the GRE. Audit or P/F credit only. FA, SP, SU.

AE 1400 Freshman Seminar (1) An introduction to university academics and university life. Intended for all new students at UCM. Topics include university resources, academic skills, interpersonal skills, time management, and goal setting. Open only to students with fewer than 25 University of Central Missouri credits. Not available to students with credit in AE 1420. FA, SP.

AE 1410 Exploring College Majors and Careers (1) An introduction to the wide range of college majors and career options. Students develop self-awareness through assessments, counseling, activities, discussions and interviews. Not available to students with credit in AE 1420. FA, SP.

AE 1420 Freshman Seminar and Career Exploration (2) An introduction to university academics and university life with emphasis on the wide range of college majors and career options with a focus on self-awareness. Open only to students with fewer than 25 University of Central Missouri credits. Not available to students with credit in AE 1400 or AE 1410. FA, SP.

AE 1450 Valuing Differences: Discovering Common Ground (1) Explores personal, experiential, and interactive issues relating to race, gender, class, and culture including ways that culturally diverse populations enrich society through differences and similarities. FA, SP.

AE 1800 Special Projects (0.5, 1, 1.5, 2, 3) Individual or group study of material in special areas of interest. *May be repeated for a maximum of 6 semester hours.* FA, SP, SU.

AE 1820 Learning Strategies (2) Learning Strategies helps students develop college-level study skills. The course work emphasizes strategies for taking lecture notes, reading textbooks, managing time, setting goals, processing information, and taking tests. FA, SP, SU.

AE 1826 Supplemental Instruction Lab (1) Supplemental Instruction is a structured learning lab for the designated course(s) in which the student is concurrently enrolled. *May be repeated for a total of 6 semester hours.* FA, SP.

AE 1840 Ways of Thinking: Perspectives on Mind and Thought (3) General overview of critical thought, including brain function, scientific method, logic, creative thinking, problem solving strategies, analysis, synthesis, and personal learning and thinking preferences and styles. FA, SP, SU.

AE 2830 Peer Tutoring in the Writing Center (2) Introduction to the theory and practice of one-on-one tutoring in a writing center setting, with emphasis on tailoring instruction to specific student populations. Prerequisites: Completion of freshmen English requirements (WENGL 1020 and WENGL 1030; or WENGL 1080) or their equivalents with grades of A and cumulative GPA of 3.2. FA, SP.

AE 4800 Special Projects (0.5, 1.0, 1.5, 2.0, 3.0) Individual or group study of material in special areas of interest. *May be repeated for a maximum of 6 semester hours.*

AERO - Aeronautics

AERO 1010 Foundations of the US Air Force I (2) Introduces the Air Force and Air Force ROTC focusing on professional appearance, military customs, courtesies, core values and officer opportunities.

AERO 1020 Foundations of the US Air Force II (2) Continues introduction of the Air Force and Air Force ROTC focusing on Air Force origins, organizations, major commands, installations and sister services. Prerequisite: AERO 1010.

AERO 2010 Evolution of USAF Air and Space Power I (2) Explores Air Force heritage, leaders, air power doctrine, origins, organizations, major commands, installations and sister services. Facilitates ROTC Cadet transition to ROTC officer candidate. Prerequisite: AERO 1020.

AERO 2020 Evolution of USAF Air and Space Power II (2) Continues transition from Air Force ROTC Cadet to Air Force ROTC officer candidate. Expands leadership skills through use of group leadership problems. Prerequisite: AERO 2010.

AERO 3010 Air Force Leadership Studies I (3) Integrated leadership and management skills facilitate development of Air Force leaders. Prerequisite: AERO 2020.

AERO 3020 Air Force Leadership Studies II (3) Expand quality Air Force principles to include ethical decision making, personal core values and character development. Prerequisite: AERO 3010.

AERO 4010 National Security Affairs I* (3) Examines the national security process, regional studies and Air Force and Joint Doctrine. Prerequisite: AERO 3020. *Not available for graduate credit.

AERO 4020 National Security Affairs II* (3) Examines civilian control of military, officership, military justice system and current issues affecting military professionalism. Prerequisite: AERO 4010. *Not available for graduate credit.

AGRI - Agriculture

AGRI 1000 Exploratory Problems in Agriculture (1-3) Individual or group work on introductory level technical problems in agriculture. Provide exploration of content not available through normal course offerings. Prerequisite: Departmental consent.

AGRI 1100 Introduction to Agriculture (1) Orientation to the philosophy, development and current trends in the professional preparation for careers in agriculture. Must be taken during the first year of the agriculture program. FA.

AGRI 1200 Agriculture Mechanics (3: 3 lecture, 0 lab) Selection and use of hand and power tools for the farm shop. Basic processes and procedures in hot metal work and elements of woodworking used in the repair and maintenance of the farm. An additional fee is associated with this course.

AGRI 1310 Agronomy I: Row Crops (2: 2 lecture, 0 lab) Principles and practices in cereal crop production.

AGRI 1420 Introduction to Animal Science (3: 2 lecture, 1 lab) This course will discuss the evaluation of basic biological systems of the farm animal livestock species including behavior, immunology, circulatory, muscular, skeletal, digestive, and reproductive systems and functions of those systems. In addition, societal issues regarding animal production will be discussed.

AGRI 1600 Introduction to Horticulture Science (4: 3 lecture, 1 lab) Coverage includes commercial and home production and maintenance of vegetables, fruits, ornamentals, herbs/spices, pharmaceuticals, turfgrass, greenhouses, nurseries, landscape design, and other areas within the field. An additional fee is associated with this course.

AGRI 2110 Agricultural Records (3) Fundamental principles and practices of record buyers as applied to the organization and operation of agricultural enterprises. FA.

AGRI 2120 Agricultural Cooperatives (1) Environment, organization and business function of modern agricultural cooperatives. Prerequisite: ECON 1011.

AGRI 2130 Global Agriculture (3) Interaction of culture and farming/food systems worldwide emphasizing the interaction of cultures with agricultural production/food systems and the influence this has on social, economic, governmental, and environmental factors.

AGRI 2315 Agronomy II: Forages (2) Principles and practices of forage crop production.

AGRI 2330 Introduction to Soil Science (3: 3 lecture, 0 lab) Chemical and physical properties of soils. Prerequisite: CHEM 1104 or CHEM 1131. An additional fee is associated with this course. FA.

AGRI 2331 Soils (3) Emphasis on soil formation, classification, and fertility. Prerequisite: AGRI 2330. SP.

AGRI 2425 Introduction to Animal Production (3: 3 lecture, 0 lab) This course will discuss the fundamental principles of farm animal livestock management and evaluation through the application of animal science methodologies to animal production techniques. Prerequisite: AGRI 1420. An additional fee is associated with this course. SP.

AGRI 3110 Agri-Business Management (3) Management functions and economics of agricultural organizations and operations, including input-output analysis, efficient allocations of resources, enterprise combinations, and budgeting analysis. Prerequisites: ECON 1011; MATH 1111 or concurrently. FA.

AGRI 3120 Distribution and Marketing Agriculture Products (3) Principles governing the distribution, prices, and marketing of agriculture products. Prerequisite: ECON 1011. FA.

AGRI 3140 Agricultural Analysis and Statistics (3) Statistical analysis and experimental designs as applied to agriculture. Prerequisite: MATH 1111. FA.

AGRI 3200 Farm Power and Machinery (3) Mechanical work on the farm, including selection, cost, and care of farm machinery. Includes laboratory practices on tractors, gas engines, plows, mowers, and other

farm machinery. An additional fee is associated with this course. SP.

AGRI 3210 Soil and Water Management (3) Soil and water conservation.

Use of farm level, laying out and establishing terraces, water ways, diversion channels, and farm ponds. Prerequisite: AGRI 2330.

AGRI 3320 Field Crop Management (3) Management of crops, crop rotation, and crop utilization. Prerequisites: AGRI 1310 or AGRI 2315, and AGRI 2330.

AGRI 3410 Animal Breeding (3) Selecting and improving livestock through genetic principles, breeding systems, and visual evaluation. Prerequisite: AGRI 1420 and AGRI 2425. FA.

AGRI 3415 Meat Science (3: 2 lecture, 1 lab) Principles of meat processing, inspection, grading, sanitation, preservation and storage with an overview of muscle composition, structure, function, and nutritive value. An additional fee is associated with this course. SP.

AGRI 3420 Animal Nutrition (3: 2 lecture, 1 lab) Basic principles of animal nutrition – study of the digestive tract anatomy, basic nutrients, factors affecting nutrient utilization, and feed formulation, including classification and composition of feedstuffs. Prerequisite: AGRI 1420. An additional fee is associated with this course. FA.

AGRI 3610 Agriculture Pest Management (3) Insect control with emphasis on recognition of destructive forms, general principles of insect habits and classification. An additional fee is associated with this course.

AGRI 3620 Residential Landscape Design (3) Theory and practice of landscaping the home, farmstead, and small properties, including elementary design, soil preparation, selection of plant material, and cultural practices. An additional fee is associated with this course. SP.

AGRI 3640 Horticultural Propagation Materials (3) Includes materials, types of plants, structure of plants, and methods used in propagation. An additional fee is associated with this course. Prerequisite: AGRI 1600. SP.

AGRI 3810 Internship in Agriculture (1-3) Provides experiences for students in cooperating agricultural businesses, agencies and other organizations. *May be repeated for a maximum of 9 semester hours.* Prerequisite: consent.

AGRI 4000 Special Projects in Agriculture (1-6) Investigation of contemporary problems and issues in agriculture by selected individuals or groups. An additional fee is associated with some sections of this course. *May be repeated for a maximum of 9 semester hours.*

AGRI 4101 Agricultural Capstone Experience* (3) Integration of agricultural knowledge and problem solving skills using case studies in a seminar forum. Prerequisites: 24 semester hours of agriculture courses and senior standing. *Not available for graduate credit.

AGRI 4110 Agricultural Futures Trading (3) Examination of techniques used in pricing products in the agricultural commodities futures market. Emphasis on futures trading as a marketing tool with some consideration of alternative speculating techniques. Prerequisite: AGRI 3120. SP.

AGRI 4120 International Agriculture (3) Economic, cultural, governmental and environmental factors which influence agricultural production and trade among countries. Prerequisites: AGR 2130 and AGRI 3120. SP.

AGRI 4140 Agricultural Policy (3) History, principles, settings, objectives, and methods of policy development as applied to agriculture in our society. Prerequisites: AGRI 3110 and AGRI 3120. SP.

AGRI 4150 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. Prerequisite: ECON 1010 and ECON 1011.

AGRI 4200 Advanced Agriculture Mechanics (3) Application of shop principles to the design and construction of farm mechanical projects. Prerequisite: AGRI 1200.

AGRI 4300 Soil Fertility and Fertilizers (3) Theory and practice of utilizing agricultural fertilizers to maximize soil productivity. Prerequisite: AGRI 2330. SP.

AGRI 4310 Plant Breeding and Genetics (3) The principles involved in the selection and development of economically important plants. Traditional and modern practices (cell culture and biotechnology) will be discussed. Prerequisites: AGRI 1600 or AGRI 2315 or BIOL 1111. An additional fee is associated with this course. FA.

AGRI 4320 Plant Diseases (3) An introduction to plant diseases with emphasis on recognition and control of economically and environmentally important species. Prerequisites: AGRI 1600 or AGRI 1310 or AGRI 2315 or BIOL 1111. FA.

AGRI 4330 Soils Management (3) Principles of soils management

as applied to physical improvement and fertility maintenance of soils.

Prerequisite: AGRI 2330.

AGRI 4340 Agricultural Sprays and Chemicals (3: 3 lecture, 0 lab)

Types of agricultural chemicals and their application in control of insects, parasites, and weeds. Prerequisite: AGRI 2330; AGRI 1310 or AGRI 2315. FA.

AGRI 4410 General Veterinary Science (3) Anatomy, physiology, disease control, parasitic control, and sanitation of farm animals. Prerequisites: AGRI 1420 and CHEM 1104. SP.

AGRI 4415 Reproduction of Farm Animals (3) Reproductive physiology of farm animals with practice in evaluation of semen, artificial insemination, and methods of pregnancy diagnosis. Prerequisites: AGRI 1420 and AGRI 3410. An additional fee is associated with this course. FA.

AGRI 4430 Animal Science: Beef (3) Systems of beef production. Includes breeding, feeding, and management of commercial and purebred beef. Prerequisites: AGRI 1420. An additional fee is associated with this course. SP.

AGRI 4435 Animal Science: Pork (3) Systems of pork production. Includes breeding, feeding, and management of commercial and purebred swine. Prerequisites: AGRI 1420. An additional fee is associated with this course. SP.

AGRI 4600 Horticultural Plants I: Woody (3: 3 lecture, 0 lab)

Identification, description, climatic adaptation, classification, characteristics and best landscape use of woody horticultural trees and shrubs. An additional fee is associated with this course. FA.

AGRI 4605 Horticultural Plants II: Herbaceous (3: 2 lecture, 1 lab)

Identification, description, adaptation, classification, cultural characteristics and best use of herbaceous horticultural plants. Prerequisite: AGRI 1600. An additional fee is associated with this course.

AGRI 4610 Turfgrass Science (3: 3 lecture, 0 lab) Selection, identification, establishment and maintenance of turfgrasses. Prerequisites: AGRI 1600 and AGRI 2330. An additional fee is associated with this course.

AGRI 4800 Topics in Agriculture (1-3) Individual investigation of a special problem in agriculture in the student's major field not available under regular classes. *May be accomplished by reports, surveys, discussions, bibliographies, experiments, and library research. May be repeated for a maximum of 3 semester hours.* Prerequisite: consent.

AGRI 4900 Planning and Conducting Programs in Agricultural Education (2) Development and organization of vocational agriculture programs at the secondary level to meet the needs of local schools and community.

AGRI 4910 Supervised Agriculture Experience Programs in Agricultural Education (2) Understandings and competencies required to establish, administer, and evaluate supervised agricultural experience programs. Prerequisite: AGRI 4930.

AGRI 4920 Lab Management in Agricultural Education (2) The selection and organization of teaching materials for agriculture labs, planning facilities, selection of supplies essential in establishing and teaching agriculture labs. Prerequisite: AGRI 4900.

AGRI 4930 Methods of Teaching Agricultural Education (2) Fundamentals of Agricultural Education including: Foundations of Agricultural Education, methods of teaching Ag Ed, teaching special populations, and evaluation of the learning process. Prerequisite: admission to Teacher Education Program.

AGRI 4940 Secondary Field Experience II* (1) Experiences in the secondary school classroom that provide the teacher candidate more advanced involvement in the teaching-learning process. Prerequisites: admission to Teacher Education Program; should be taken concurrently with AGRI 4930 during the Professional semester. *Not available for graduate credit. SP.

ANTH - Anthropology

ANTH 1810 Human Prehistory (3) Surveys the empirical evidence of fossils and artifacts for human biological and cultural origins from circa five million to five thousand years ago.

ANTH 1820 Cultural Anthropology (3) Surveys the origin, development, and varieties of contemporary cultures, including non-Western; comparisons of technology, customs, groups, and institutions between and among these cultures; implications of earlier cultures for modern society.

ANTH 2820 Anthropology of Food (3) Delves into how and why we eat what we eat. Students approach food, drink, spices, and drugs in terms of evolution and culture.

ANTH 2845 Physical Anthropology (3) The biology of the human organism; primatology, primate paleontology, and fossil hominids; the role of genetics in evolutionary theory; basic ideas in population genetics, and racial variation.

ANTH 3810 Applied Anthropology (3) Applications of the four major subfields of anthropology: cultural anthropology, physical anthropology, archaeology, and linguistics.

ANTH 3820 World Archaeology (3) An examination of societies that are now extinct and an introduction to the field and laboratory methods used to reconstruct their cultures.

ANTH 3830 Anthropological Linguistics (3) Introduction to study of languages and their acquisition, phonology, morphology and syntax, orthography, modality and proxemics. Students also complete observations of language use among primates and human populations, and create their own languages.

ANTH 3850 Peoples of the World (3) A survey of extant indigenous and non-Western cultures with a focus on 21st century cultural developments, and application of cross-cultural and material culture study methods.

ANTH 4815 Special Projects in Anthropology (1-6) Study, interpretation, and discussion of special topics and problems in anthropology. *May be repeated for a maximum of 6 semester hours.* Prerequisite: consent of instructor.

ANTH 4820 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.

ANTH 4830 Archaeological Field Research (3) Field experience in which students learn archaeological methods of surveying, recording and excavation, as well as how and why we investigate and preserve sites.

ANTH 4840 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.

ANTH 4850 The North American Indian (3) The anthropological study of the native peoples of America north of Mexico; the physical types of American Indian populations; the comparative study of native American languages, North American prehistory, and North American ethnology.

ANTH 4860 Museum Studies (3) Introduction to museum professionalism, including ethical and legal concerns, collections care, exhibition and interpretation, and curatorship. Includes field experience and practicum hours in museum collections.

ANTH 4870 Comparative Cultures (3) Compares various aspects of cultures in selected societies and helps students to collect and analyze data on cultural patterns in their own and other societies.

ART - Art and Design

ART 1110 Drawing I (3) Basic principles of perspective and composition through problems in landscape and still life. FA, SP, SU.

ART 1120 Drawing II (3) Compositional drawing in various media including ink wash and pen and ink. Prerequisite: ART 1110. FA, SP, SU.

ART 1300 Interior Design Drafting I (3) This is an introductory course in freehand sketching, manual drafting and computer-aided drafting/ design (CAD). The course introduces students to the sketching and drafting skills and techniques necessary for design communication and presentation of interior design solutions. FA.

ART 1315 2-D Design (3) Introduces the use of the visual elements within the context of the principles of design. An additional fee is associated with this course. FA, SP.

ART 1325 Color and Design (3) The study of color, its application within the design process and its use as an integral component in design. Prerequisite: ART 1315. An additional fee is associated with this course. FA, SP, SU.

ART 1800 Ideas and the Visual Arts (3) Explores the idea and practice of the visual arts in modern society. A study of style, form, content, and aesthetic judgment emphasizing the visual arts as a means of communicating ideas. FA, SP, SU.

ART 1815 Art History Survey I (3) An introductory survey of art in the Western world from prehistoric origins through the Middle Ages (caves to

cathedrals) using art historical description and interpretation based on the social, cultural, intellectual, political, and religious contexts that produced it. FA.

ART 1825 Art History Survey II (3) An introductory survey of art in the Western world from the Middle Ages to the art of today using art historical description and interpretation based on the social, cultural, intellectual, political, and religious contexts that produced it. SP.

ART 1835 Global Arts and Culture (3) A survey of the visual, cultural and aesthetic developments of sculpture, paintings, and architecture in non-Western traditions: Asian, African, Islamic Art, Oceanic Art and Art of the Americas.

ART 2300 Interior Design Drafting II (3) An advanced course building upon skill acquired in ART 1300 Interior Design Drafting I. The course offers advanced instruction on 3D modeling through building information modeling (BIM), parametric building design, and rendering necessary for design communication and presentation of interior design solutions. Prerequisite: ART 1300. FA.

ART 2305 Interior Design Presentation Techniques (3) The techniques necessary for the presentation of interior design solutions. Both traditional media and computer-aided technology will be implemented. An additional fee is associated with this course. Prerequisites: ART 1325 and ART 2310. FA.

ART 2310 Interior Design Studio I (3) An overview of the profession with an introduction to necessary skills for the practice of interior design: creative problem solving, space planning, drafting, presentation techniques. An additional fee is associated with this course. Prerequisites: ART 1110 and ART 1315. SP.

ART 2320 Building Systems and Sustainability (3) Provides an overview of construction and building systems as they relate to interior design. Provide knowledge of theoretical and technical content of interior design practice. Prerequisites: ART 1120 and ART 2310 for art majors; CADD 1110 or consent of instructor for nonmajors. An additional fee is associated with this course. FA.

ART 2335 3-D Design (3) Exploration of design on a three-dimensional level utilizing design principles in the development of structural forms and the manipulation of physical space. Prerequisite: ART 1325. An additional fee is associated with this course. FA, SP, SU.

ART 2340 Materials, Methods and Specifications (3) Introduction to the materials utilized in interior design. Additional information on installation and appropriate use and care. Emphasis placed on developing and writing specifications. Prerequisite: ART 2310. An additional fee is associated with this course.

ART 2350 Interior Design Building Codes and Regulations (3) To develop an understanding of the codes, regulations, guidelines and standards that affect the interior design of both residential and commercial buildings. Opportunities to work with and apply regulations to a wide range of interior scenarios. Prerequisite: ART 2320. SP.

ART 2360 Interior Design Environmental Systems (3) Intermediate work in interior design involving environmental systems with emphasis placed on the understanding and application of acoustics, air quality and lighting design and documentation for interiors. Prerequisite: ART 2320. SP.

ART 2412 Ceramics I (3) Basic skills on the three pottery making methods: e.g., slab, coil, and pottery wheel with emphasis on aesthetic qualities. Wheel throwing will be accented. Basic experiences in kiln stacking and firing. An additional fee is associated with this course. FA, SP, SU.

ART 2420 Sculpture I (3) Fundamentals in sculpture including additive, subtractive, and construction techniques. An additional fee is associated with this course. FA, SP.

ART 2511 Painting I (3) The creative art process with emphasis on the basic visual concepts and styles, ranging from the care and use of painting tools to the execution of paintings, and including some painting history. Prerequisites: ART 1110 and ART 1315. FA, SP, SU.

ART 2610 Introduction to Graphic Design and Illustration (3) Basic orientation to the field of commercial art. Presentation skills, use of tools and materials. Creative problem solving in the areas of advertising, publication, graphic design, and illustration. Prerequisites: ART 1110 and ART 1315. Graphic arts majors - GRAP 2030 and GRAP 2031. An additional fee is associated with this course. FA, SP.

ART 2620 Typography (3) Principles of design and usage of letter forms and alphabet styles provide the basis for experiments in spacing, arrangement, and integration of typographic and other graphic elements on the printed page. Prerequisites: ART 1110 and ART 1315. Graphic

arts majors - GRAP 2030 and GRAP 2031. An additional fee is associated with this course. FA, SP.

ART 2710 Printmaking I (3) This course is designed to acquaint the student with the basics of various printmaking processes. Prerequisites: ART 1110 and ART 1315. An additional fee is associated with this course. FA, SP.

ART 3110 Drawing III (3) The application of fundamentals of drawing to creative problems in figure, still life, and landscape composition. *May be repeated for a maximum of 9 semester hours.* Prerequisites: ART 1120 and ART 3209. FA, SP, SU.

ART 3209 Figure Construction (3) The skeletal and muscular construction of the human figure as it relates to the action and proportions of the figure. Drawing from life. Prerequisite: ART 1110. An additional fee is associated with this course. FA, SP.

ART 3210 Life Drawing (3) Drawing from a live model with the emphasis on techniques. *May be repeated for a maximum of 6 semester hours.* Prerequisite: ART 3209. An additional fee is associated with this course. FA, SP.

ART 3310 Interior Design Studio II (3) A study of traditional interior design problems. An emphasis in architectural interior elements, interior surfaces, finishes, and application. Prerequisites: ART 2320 for art majors; consent of instructor for nonmajors. An additional fee is associated with this course. SP.

ART 3314 Fibers (3) Basic course in the fundamentals and techniques of creating on and off loom structures and fabrics. *May be repeated for a maximum of 9 semester hours.* An additional fee is associated with this course. FA, SP.

ART 3320 Professional Practice for Interior Design I (1) Provides an introduction to business practices and procedures as they apply specifically to the professional practice of interior design. Students will develop a basic understanding of the interior design field and develop a plan for obtaining an internship. Prerequisite: ART 2310. SP(E).

ART 3330 Interior Design Studio III (3) Involves intermediate level work in interior design studio problems related to retail and hospitality with an emphasis on experience design, safety and environmental comfort for interiors. An additional fee is associated with this course. Prerequisite: ART 3310. FA.

ART 3340 Interior Detailing and Furniture Design (3) The detailing of interior environments and furniture design to include casework and furnishings through a coordinated study of structure, style, and materials. Prerequisite: ART 2320. An additional fee is associated with this course. FA.

ART 3350 Construction Documentation for Interior Design (3) Studio course that engages students in the practice of communicating design intentions and construction quality to other building professionals through the creation of construction drawings. Partial set of construction documents utilizing Building Information Modeling (BIM) system will be created. Fee: An additional fee is associated with this course. Prerequisite: ART 3310. FA.

ART 3412 Ceramics II (3) Extended studio research in pottery design and forming. Technical methods in the preparation of clay bodies, glazes, and kiln firing and maintenance. *May be repeated for a maximum of 9 semester hours.* An additional fee is associated with this course. Prerequisite: ART 2412. FA, SP, SU.

ART 3420 Sculpture II (3) An intermediate level studio art course in sculpture focusing on the introduction of various 3D techniques, materials, media and advancing the student's ability to solve artistic problems. Prerequisite: ART 2420. An additional fee is associated with this course. FA, SP.

ART 3440 Sculpture III (3) An advanced-intermediate level studio art course in sculpture that builds on and adds to the student's repertoire of 3D techniques, materials, media and increases their ability to solve artistic problems. Prerequisite: ART 3420. FA, SP.

ART 3510 Watercolor (3) Application of principles of composition in the medium of transparent watercolor. *May be repeated for a maximum of 9 semester hours.* Prerequisites: ART 1110 and ART 1315. FA, SP, SU.

ART 3511 Painting II (3) Study and practice in basic painting techniques. *May be repeated for a maximum of 9 semester hours.* Prerequisite: ART 2511. FA, SP, SU.

ART 3513 Painting II: Plein Air (3) Working in the landscape utilizing direct observation to study and practice basic painting skills. *May be repeated for a maximum of 9 semester hours.* Prerequisite: ART 2511. FA.

ART 3515 Painting II: Figure (3) Working from the figure utilizing direct

observation to study and practice basic painting skills. *May be repeated for a maximum of 9 semester hours.* Prerequisite: ART 2511. SP.

ART 3620 Logo/Trademark Design (3) The design of symbolic and lettergraphic identifiers, practical application of symbols, signs, and visual metaphors from simple logotypes to sophisticated corporate identity programs. Prerequisites: ART 2610 and ART 2620. An additional fee is associated with this course. FA, SP.

ART 3625 Illustration Techniques (3) The application of wet and dry media with various surfaces to achieve a range of visual effects with an emphasis on exploration and experimentation. Nineteenth and twentieth century illustrators' works are studied as a means of understanding visual possibilities and styles. Prerequisite: ART 2610. An additional fee is associated with this course. FA.

ART 3630 Design for Advertising (3) Advertising concepts, layout, client presentation for print application. Developing, visualizing, and communicating effective advertising for magazines, newspapers, and outdoor posters. Prerequisites: ART 2610 and ART 2620. An additional fee is associated with this course. FA.

ART 3635 Illustration Concepts (3) The interpretation of written and verbal information resulting in appropriate and successful visual solutions. Concept and visual vocabulary are stressed as a means of satisfying client needs. Students will begin to identify and build a personal illustrative style. Prerequisite: ART 3625. An additional fee is associated with this course. SP.

ART 3640 Package Design (3) Packaging and point-of-sale graphics from concept to client presentation. Prerequisite: ART 3620. An additional fee is associated with this course.

ART 3650 Narrative Animation (3) Introduction to the field of animation including time-based works, story development, character design, sound, and digital multimedia. Exploration of technologies, methods and concepts in narrative animation. Prerequisite: ART 2610. SP.

ART 3660 Publication Design (3) Publications as design problems. The design of folders, brochures and soft-bound print pieces through the manipulation of type, photos, art, paper and grid systems. Prerequisites: ART 2610 and ART 2620. An additional fee is associated with this course.

ART 3680 History of Graphic Design (3) A survey of graphic design from pre-history through the digital age introduced by analysis of major works and movements of graphic design within the context of their time and influence on later works. SP, SU.

ART 3710 Printmaking II (3) Advanced techniques are explored in one or more of the four printmaking processes. *May be repeated for a maximum of 12 semester hours.* Prerequisite: ART 2710. An additional fee is associated with this course. FA, SP.

ART 3720 Printmaking III (3) Individual artistic direction is developed in one of the four printmaking processes. *May be repeated for a maximum of 12 semester hours.* Prerequisite: ART 3710. An additional fee is associated with this course. FA, SP.

ART 3800 History of Furniture and Interiors I (3) Surveys the influence of culture, significant events, and technology on the development of furniture and interior design from ancient civilizations through the fourteenth century. FA.

ART 3850 History of Furniture and Interiors II (3) Surveys the influence of culture, significant events, and technology on the development of furniture and interior design from the fifteenth century (Baroque period) to present day. SP.

ART 3910 Art for Elementary Schools (2) Elements of art structure and the principles of composition and their application in creative visual art experiences, especially adapted for children ages 4 through 12. An additional fee is associated with this course. FA, SP, SU.

ART 3915 Methods of Teaching Art I: Elementary (3) The art teacher's role in teaching art history, art criticism and aesthetics, along with the production of artwork for children ages 4 through 12, will be explored. Prerequisites: ART 1110 and ART 1315. An additional fee is associated with this course.

ART 3920 Methods of Teaching Art II: Secondary (3) The art teacher's role and methods of teaching art production, art history, art criticism and aesthetics for students grades 6-12, will be explored. Prerequisite: ART 3915; should be taken concurrently with EDFL 3500 and FLDX 3550. An additional fee is associated with this course.

ART 4010 Special Projects in Art (1-3) Prerequisite: instructor consent. *May be repeated as topics vary.* AN.


ART 4020 Studio Seminar (3) By arrangement, with consent of the instructor involved, and through individual directed study. *May be repeated for a maximum of 6 semester hours.* An additional fee is associated with this course. Prerequisite: senior year with consent. FA, SP.

ART 4221 Art Theory and Criticism (3) Examines art theory, aesthetics, ethics, political and economic values, sociology, psychology, art history, visual culture and art criticism specific to global visual art worlds using critical and creative thinking and the prior art knowledge of artists, graphic designers, illustrators, interior designers and art educators. Prerequisites: Consent to enroll, based on the following conditions: Junior, Senior or Graduate status. FA, SP.

ART 4310 Design Internship (2-3) An elective course for interior design and commercial art majors operated in conjunction with various business firms, wherein students are afforded the opportunity of working alongside professional designers in the field. *May be repeated for a maximum of 6 semester hours.* Prerequisite: a major on the undergraduate level of either interior design or commercial art and with approval of departmental committee. FA, SP, SU.

ART 4320 Professional Practice for Interior Design II* (2) This course pursues a survey of business practices and procedures as they apply specifically to the professional practice of interior design. Exposure to contemporary issues in interior design (right to practice, business laws and ethics) coupled with the study of how interior design projects proceed from the Design Documentation Phase to the Project Closeout Phase help to prepare the entry-level interior designer for practice. *Not available for graduate credit. SP.

ART 4324 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: 20 semester hours of art. SU.

 **ART 4340 Interior Design Studio IV (3)** Advanced work in interior design studio problems. Advanced programming and increasing emphasis on spatial development in predominantly commercial and/or institutional environments. *May be repeated for a maximum of 6 semester hours.* An additional fee is associated with this course. Prerequisite: ART 3330 for art majors; consent of instructor for nonmajors. SP.

ART 4350 Interior Design Thesis I* (3) Summative course for the independent proposal of a unique interior design project. Preliminary work on portfolio and related documents necessary for a career placement search. Prerequisite: ART 4340. *Not available for graduate credit.

ART 4360 Interior Design Thesis II* (3) Design documentation and implementation of a unique interior design project previously proposed. Completing work on portfolio and related documents necessary for a career placement search. Prerequisite: ART 4350. *Not available for graduate credit.

ART 4412 Ceramics III (3) Production of advanced ceramics projects with emphasis on the search for individual styles and choices of forming methods. Advanced study of glaze chemistry, clay body formulation, and kiln construction. *May be repeated for a maximum of 9 semester hours.* An additional fee is associated with this course. Prerequisite: ART 3412. FA, SP, SU.

ART 4420 Sculpture IV (3) A repeatable advanced level studio art course in sculpture that allows students to consolidate and increase their skills and abilities while they build a significant body of sculptural work. *May be repeated.* Prerequisite: ART 3440. An additional fee is associated with this course. FA, SP.

ART 4434 Creative Bookbinding (3) Introduction to the art and craft of the artist's book, including the technical and creative aspects of historical and contemporary bookbinding. *May be repeated for a maximum of 6 semester hours.* SP.

ART 4511 Painting III (3) Application of principles of composition in the medium of oil or acrylic paint. *May be repeated for a maximum of 9 semester hours.* Prerequisite: ART 3511 or ART 3513 or ART 3515. FA, SP, SU.

ART 4513 Painting III: Plein Air (3) Working in the landscape utilizing direct observation to develop advanced painting skills. *May be repeated for a maximum of 9 semester hours.* Prerequisite: ART 3511 or ART 3513 or ART 3515. FA.

ART 4515 Painting III: Figure (3) Working from the figure utilizing direct observation to develop advanced painting skills. *May be repeated for a maximum of 9 semester hours.* Prerequisite: ART 3511 or ART 3513 or ART 3515. SP.

ART 4610 Interactive Design (3) An introduction to the field of digital visual communication. Integration of new technologies, concepts and methods will be explored. Prerequisites: ART 3660. An additional fee is associated with this course. SP.


ART 4620 Motion Design* (3) Introduction to the field of motion graphics including: time-based works, animation, sound, and digital multimedia. Exploration of technologies, methods and concepts in motion design. An additional fee is associated with this course. Prerequisites: ART 2610 and ART 2620. *Not available for graduate credit. FA, SU.


ART 4625 Advanced Illustration I* (3) The application of illustration techniques and concepts to advertising and editorial assignments in a simulated professional setting. Projects will stress the research and generation of visual references, working with art directors and editors, meeting tight deadlines. Prerequisite: ART 3635. An additional fee is associated with this course. *Not available for graduate credit. FA.

ART 4635 Advanced Illustration II* (3) A continuation of ART 4625 with an emphasis on the business aspects of free-lance illustration. Prerequisite: ART 4625. An additional fee is associated with this course. *Not available for graduate credit. SP.

ART 4850 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. FA.

ART 4860 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.

 **ART 4920 Methods of Teaching Art III: Student Teaching Seminar* (3)** Application of previous art methods and education course knowledge to preparing for student teaching placements, fulfilling program exit requirements, and developing skills for seeking employment. Prerequisite: admission to Teacher Education Program; double majors must take a methods course for each major; should be taken during the Professional Semester. *Not available for graduate credit. FA, SP.

 **ART 4930 K-12 Field Experience in Art* (1)** Participation in the elementary and secondary art locations where student teaching will take place, ensuring an effective transition from University campus setting to student teaching. Prerequisites: admission to the Teacher Education Program; should be taken concurrently with ART 4920 during the Professional Semester (the student teaching semester). *Not available for graduate credit. FA, SP.

AT - Athletic Training

AT 1610 Introduction to Athletic Training (2) The course is designed to acquaint the first year athletic training major with all aspects of the athletic training profession. Corequisites: AT 1611 and AT 1625. FA.

AT 1611 Introduction to Athletic Training Lab I (1) Introduction to clinical athletic training emphasizing basic pre-professional skills sets. Corequisites: AT 1610 and AT 1625. FA.

AT 1625 CPR/AED for Health Care Professionals (1) This course is designed to prepare students to administer CPR/AED in a clinical setting. An additional fee is associated with this course.

AT 1630 Foundations of Athletic Training (2) Provide the athletic training student with the foundation needed to recognize the cause of injuries, effectively manage injuries, and to prevent injuries from occurring. Prerequisites: AT 1610, AT 1611 and AT 1625. Corequisites: AT 1631 and AT 1650. SP.

AT 1631 Foundations of Athletic Training Lab II (1) Provide the athletic training student with the clinical foundations to recognize the cause of, prevention of, and management of injuries. Prerequisites: AT 1610, AT 1611, and AT 1625. Corequisites: AT 1630 and AT 1650. SP.

AT 1640 Medical Terminology (1) Terminology, note writing, and documentation techniques in sports medicine. A treatment cycle will be introduced. Prerequisites: AT 1610, AT 1611, and AT 1650. SP.

AT 1650 Responding to Emergencies for the Professional Rescuer (3) Accident, injury and illness situations for immediate first-aid, and legal parameters involved in emergency care. Certification in CPR/AED for the professional Rescuer and First-Aid is attained. Corequisites: AT 1630 and AT 1631.

AT 2610 Orthopedic Assessment: Lower Extremity (2) Common types of orthopedic/sports dysfunctions to the lower extremity. Viewpoints include: etiology and mechanism of injury, pathology, recognition and evaluation techniques, protocols, and prevention. Prerequisites: AT 1610, AT 1611, AT 1630, AT 1631, AT 1640, AT 1650, and PE 1800. Corequisite: AT 2611. FA.

AT 2611 Orthopedic Assessment: Lower Extremity Lab III (1) Evaluation of orthopedic injuries and conditions occurring to the lower extremity. Prerequisites: AT 1610, AT 1611, AT 1630, AT 1631, AT 1640, AT 1650, and PE 1800. Corequisite: AT 2610. FA.

AT 2620 Orthopedic Assessment: Upper Extremity (2) Common types of orthopedic/sports dysfunctions to the upper extremity will be discussed including mechanism of injury, pathology, recognition and evaluation techniques, protocols, and prevention. Prerequisites: AT 1610, AT 1611, AT 1630, AT 1631, AT 1640, AT 1650, AT 2610, AT 2611, PE 1800 and PE 2850. Corequisites: AT 2621 and PE 2800. SP.

AT 2621 Orthopedic Assessment: Upper Extremity Lab IV (1) Evaluation of orthopedic injuries and conditions occurring to the upper extremity. Prerequisites: AT 1610, AT 1611, AT 1630, AT 1631, AT 1640, AT 1650, AT 2610, AT 2611, PE 1800 and PE 2850. Corequisite: AT 2620. SP.

AT 2630 Therapeutic Modalities (2) The theoretical knowledge for the clinical application of therapeutic modalities. Principles of the physiological effects and therapeutic indications and contraindications with application of these modalities. Prerequisites: AT 1610, AT 1611, AT 1630, AT 1631, AT 2620, AT 1640, and AT 1650. Corequisites: AT 2631 or consent of faculty advisor.

AT 2631 Therapeutic Modalities Lab (1) Students will apply the techniques and clinical skills related to the application of therapeutic modalities. Prerequisites: AT 1610, AT 1611, AT 1630, AT 1631, AT 1640, AT 1650, PE 1800, and PE 2850. Corequisites: AT 2630 or consent of faculty advisor.

AT 2640 Introduction to Therapeutic Exercise (2) An introduction to therapeutic exercise, program design and implementation, and progression for exercises and conditions in the active population. Prerequisites: AT 1610, AT 1611, AT 1630, AT 1631, AT 1640. Corequisite: PE 1800 or consent of faculty advisor.

AT 3610 Care and Prevention of Injuries (3) Accepted athletic training procedure in the care and prevention of athletic injuries. Prerequisite: PE 1800. An additional fee is associated with this course. FA, SP.

AT 3620 Clinical Athletic Training Lab V (2) The application of athletic training skills and professional practice related to the clinical setting. Prerequisites: AT 2610, AT 2611, AT 2620, AT 2621. FA.

AT 3630 Therapeutic Rehabilitation (2) Theoretical knowledge in the clinical application of rehabilitation programs, physical examinations, therapeutic exercises, open and closed chain exercises, muscle reeducation, special therapeutic techniques including aquatic therapy. Prerequisites: AT 1610, AT 1611, AT 1630, AT 1631, AT 1650, AT 2620, AT 2621, AT 2630, AT 2631, PE 2850 and PE 2800.

AT 3631 Therapeutic Rehabilitation Lab (1) Clinical skills relating to the rehabilitation of athletic injuries. Prerequisites: AT 1610, AT 1611, AT 1630, AT 1631, AT 1650, AT 2620, AT 2621, AT 2630, AT 2631, PE 2850 and PE 2800.

AT 3640 Clinical Athletic Training Lab VI (2) The application of athletic training skills and professional practice related to the clinical setting. Prerequisites: AT 2610, AT 2611, AT 2620, AT 2621, and AT 3620. SP.

AT 3650 Sport and Exercise Pharmacology (2) Discuss medications and their impact upon the active population. Issues in ethical concerns and legal implications will be addressed. Prerequisite: junior standing. FA.

AT 4610 Clinical Athletic Training Lab VII* (2) The application of athletic training skills and professional practice related to the clinical setting. Prerequisites: AT 2610, AT 2611, AT 2620, AT 2621, AT 2630, and AT 2631. *Not available for graduate credit. FA.

AT 4620 Clinical Athletic Training Lab VIII* (2) The application of athletic training skills and professional practice related to the clinical setting. Prerequisites: AT 2610, AT 2611, AT 2620, AT 2621, AT 2630, and AT 2631. *Not available for graduate credit. SP.

AT 4630 Organization and Administration of Athletic Training* (3) legal issues, budget and inventory management, facility designs and maintenance, daily supervision, scheduling, and administration of the athletic training facilities will be addressed. Prerequisites: AT 1610, AT 1611, AT 1630, AT 1631, AT 1650, AT 2620, AT 2621, AT 2630,

AT 2631, AT 3620, PE 2850 and PE 2800 *Not available for graduate credit. SP.

AT 4640 Senior Seminar in Athletic Training (2) Culminating experiences for senior level athletic training students focusing on current topics in the Athletic Training Profession and career development issues. Prerequisite: senior standing.

AT 4650 Human Disease Lab for Athletic Training* (1) Clinical practice in patient care using instrumentation and hands-on application in performing differential assessments of common disease states and medical conditions for the Athletic Training Student. Prerequisite: PE 2850 or BIOL 3402. Corequisite: HED 4370. *Not available for graduate credit.

ATM - Automotive Technology Management

NOTE: Each student enrolled in an automotive course is expected to pay a course fee to cover the cost of consumable supplies which cannot be conveniently charged to a particular project. In addition, each student will provide appropriate vehicle(s) with necessary materials and replacement parts for assigned laboratory experiences.

ATM 1010 Contemporary Power Systems (3: 2 lecture, 1 lab) Power sources and methods of transferring power. Theory of internal combustion engines. Laboratory experiences with emphasis on small gasoline engines. Each student must disassemble and overhaul at least one engine. An additional fee is associated with this course. FA.

ATM 2110 Engine Theory and Maintenance (4: 3 lecture, 1 lab) Examines through practical application the theories of operation, construction, maintenance, disassembly, and assembly of motor vehicle engines and their supporting systems. Emphasis on operating principles and maintenance procedures. Prerequisite: ATM 1010 or background experience. An additional fee is associated with this course. FA.

ATM 2124 Automotive Braking Systems (4: 2 lecture, 2 lab) Classroom and laboratory activity in the diagnosis, service and repair of automotive braking, anti-lock braking, traction control and stability control systems. Prerequisite: ATM 1010. An additional fee is associated with this course. SP.

ATM 2130 Automotive Electrical Systems (4: 2 lecture, 2 lab) Procedures for testing, adjusting, repairing, and servicing of electrical components in automotive charging, starting, ignition, and accessory systems. Prerequisite: ATM 1010 and ET 1010 or concurrently. An additional fee is associated with this course. FA.

ATM 2132 Fuel Systems and Emission Controls (4: 2 lecture, 2 lab) Fuel and related emission control systems. Basic carburation, fuel injection, and emission control devices. Prerequisite: ATM 2130. An additional fee is associated with this course. SP.

ATM 2150 Mobile Heating, Ventilating, Air-Conditioning (Mobile HVAC) (3: 2 lecture, 1 lab) Designed to introduce technicians to mobile heating, ventilation, and air-conditioning systems. An additional fee is associated with this course. SP.

ATM 3010 Transportation Systems (3) Characteristics and significance of transportation technology as applied to people, their society and economic systems, analyzed through a review of water, highway, rail, air and pipeline transport. FA.

ATM 3110 Automotive Engine Overhaul (4: 1 lecture, 3 lab) Theory and practice of disassembling, cleaning, inspecting, and repairing automotive engines. Removal and overhaul of engine according to accepted industry practice is a required activity for each student in the course. Prerequisite: ATM 2110 or AGRI 3200. SP.

ATM 3120 Steering and Suspension Systems (4: 2 lecture, 2 lab) Classroom and laboratory activity in the diagnosis, service and repair of automotive steering and suspension systems. Prerequisite: ATM 1010 or background experience. An additional fee is associated with this course. FA.

ATM 3130 Computerized Engine Diagnostics (4: 2 lecture, 2 lab) Utilization of computerized diagnostic methods and equipment in testing and servicing computerized engines in conjunction with automotive tune-up. Prerequisite: ATM 2132. An additional fee is associated with this course. FA.

ATM 3134 Advanced Powerplant Systems (3: 2 lecture, 1 lab) This course is designed to familiarize students with current and near-future automotive propulsion system technologies. It includes the study of advanced engine

performance and diagnostic equipment with particular emphasis given to alternate fuel power-plant systems, electric vehicles, hybrid electric vehicles, fuel cells and other relevant topics pertaining to the advanced vehicle propulsion systems. Prerequisite: ATM 2110 and ATM 2132. An additional fee is associated with this course. FA.

ATM 3140 Transmissions and Drivelines (4: 2 lecture, 2 lab) In-depth classroom and laboratory experiences in the diagnosis, service and repair of transmissions and drivelines. Prerequisite: ATM 1010 or AGRI 3200. An additional fee is associated with this course. SP.

ATM 3150 Diesel Technology (4: 3 lecture, 1 lab) Survey of diesel engine theory, diagnosis, service and maintenance with emphasis in diesel fuel systems, injection pump designs, construction, operation, and maintenance. Prerequisite: ATM 2110 or AGRI 3200. An additional fee is associated with this course. SP.

ATM 4025 Motorcycle Systems Maintenance (3: 2 lecture, 1 lab) Theory, maintenance and repair of motorcycles and systems. Special emphasis on diagnostics, repair, and adjustment procedures. Students will need to provide a motorcycle. An additional fee is associated with this course FA(O).

ATM 4032 Hydraulics and Pneumatics (3: 2 lecture, 1 lab) Fluid power principles with practical application of hydraulics, pneumatics, and fluidics. Prerequisites: MATH 1111 or TECH 1040. An additional fee is associated with this course. FA, SP, SU.

ATM 4038 Advanced Hydraulics (3) Hydraulic system analysis and troubleshooting along with servo and electronic control theory and application. Prerequisite: ATM 4032. An additional fee is associated with this course. FA(E).

ATM 4112 ATM Capstone Experience* (3) Integration of communication, technology, sociology, economics, and ecology with automotive engineering, management and service, emphasizing their reciprocal effects on each other. Prerequisite: 27 hours of ATM classes and senior standing as an Automotive Technology Management major. An additional fee is associated with this course. *Not available for graduate credit. SP.

ATM 4134 Advanced Vehicle Systems (2) This course is a study of advanced peripheral electronic systems in automobiles. Emphasis is placed on systems as they pertain to hybrid and electric vehicles. Prerequisite: ATM 3134. SP.

ATM 4410 Intermodal Surface Transportation (3) Surface transportation (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, social, and political factors are considered. AN.

AVIA - Aviation

NOTE: Aircraft user charges are based on flying time and vary with the type of aircraft. Advance deposits of \$500 or more for each course are required. Contact the Department of Aviation or Chief Flight Instructor for current hourly flight fee rates. Additional federal financial aid may be received by students who incur documented costs for aviation flight training.

AVIA 1020 Aeronautics (2) An overview of aviation and aerospace related industries. Consideration is given to the development of aviation and resulting social and economic factors, theory of flight, problems of weather and navigation, occupational opportunities, and government interest, promotion and regulation. FA, SP.

AVIA 1200 General Mechanics (3) Power mechanics, measurement and transmission. Theory of internal combustion engines. Principles of simple machines, sound, fluid and heat dynamics. Fabrication of fluid lines and fittings. Disassembly, repair and reassembly of a small reciprocating engine.

AVIA 1210 Aircraft Reciprocating Power Plants (3) Aircraft reciprocating power plants, construction, operation, overhaul, and engine logs. Laboratory experience in disassembling, cleaning, inspection, and assembling.

AVIA 1215 General A&P Applications (3) General A&P related course and laboratory material necessary to transition from military to civilian applications. Prerequisite: Release from the Federal Aviation Administration (FAA sign-off) for General, Airframe, and Powerplant or permission of instructor.

AVIA 1216 Airframe Applications (3) The course provides a thorough

study of Airframe related course material necessary to transition from military to civilian applications. Prerequisite: FAA authorization for General, Airframe, and Powerplant, or permission from the instructor.

AVIA 1217 Powerplant Applications (3) The course provides a thorough study of Powerplant related course material necessary to transition from military to civilian applications. Prerequisite: FAA authorization for General, Airframe, and Powerplant, or permission from the instructor.

AVIA 1218 FAA Maintenance Regulations (3) The course provides a thorough study of FAA Maintenance Regulations and Records keeping necessary to transition from military to civilian applications. Prerequisite: FAA authorization for General, Airframe, and Powerplant, or permission from the instructor.

AVIA 1310 FAA Private Requirements (3) Basic ground school in support of flight training to prepare for the FAA examination for the Private Pilot Certificate. A fee is charged for pilot supplies and ground school materials. FA, SP.

AVIA 1330 Principles of Helicopter Flight (2) Provides basic helicopter aerodynamics to helicopter Private Pilot students including aircraft components, flight characteristics, and flight principles. Prerequisite: FLYA 1321 or Private Pilot Airplane certificate or equivalent.

AVIA 2310 Propulsion Systems (3) Operation and theory of aircraft propellers and both reciprocating and gas turbine engines. Laboratory activity includes testing and troubleshooting major functional components and systems. FA, SP.

AVIA 2340 Aircraft Systems and Components (3) Design, construction and operation of aircraft mechanical, electrical hydraulic, and pneumatic systems with emphasis on trouble analysis, servicing methods, and safety precautions. Prerequisite: AVIA 2310 or concurrently. FA, SP.

AVIA 3022 Aviation Internship (1-3) Provides experience for students in participating organizations. Students rotate assignments, create written reports of their activities.

AVIA 3255 Metal Airframe Processing (3) Theory and practice in the construction and repair of metal airframes.

AVIA 3305 FAA Commercial Requirements (3) Commercial ground school subjects in support of flight training to prepare for FAA examination for Commercial Pilot Certificate. Prerequisite: FLYA 3314. FA, SP.

AVIA 3325 FAA Instrument Requirements (3) Instrument ground school subjects in support of flight training to prepare for FAA examination for instrument rating. Prerequisite: FLYA 1321. FA, SP.

AVIA 3360 Flight Instructor--Airplane (3: 3 lecture, 0 lab) Combines classroom and flight laboratory experience to prepare for FAA written examination and flight test for flight instructor rating. Prerequisite: FLYA 3317. An additional fee is associated with this course.

AVIA 3610 Human Factors (3) A survey of pilot performance, human factors in aircraft design, and vehicles and systems as it relates to the human-machine interface. Topics include the essence of airmanship, flight discipline, proficiency, team-environment-risk, situational awareness, decision making, and evaluating airmanship.

AVIA 3620 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 3710 Professional Ethics in Aviation (2) 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 4000 Special Projects in Aviation Technology (1-3) Investigation of contemporary problems and issues in power and transportation by selected individuals or groups. *May be repeated for a maximum of 6 semester hours.* An additional fee is associated with some sections of this course.

AVIA 4010 Aerodynamics* (3) Theories of flight and factors affecting aircraft in flight, including drag, velocity, lift, thrust and wing loading. Comparative analysis of design features in modern aircraft. *Not available for graduate credit. FA, SP.

AVIA 4040 Aviation Management (3) Aviation/airport management and administrative functions, issues, and problems involving both large and small airports, heliports, sea plane bases and related fixed base operations. Prerequisites: MGT 3325 or MCTE 3060; Senior standing. FA, SP, SU.

AVIA 4042 Aviation Maintenance Management* (3) Introduces fundamental duties/responsibilities of a typical maintenance manager for FAR Part 91, 135 charter, 145 repair station, corporate, and airline operations. *Not available for graduate credit. FA, SP.

AVIA 4045 Airport Management (3) Airport operations and management principles and applications. Personnel, security, budgeting, contracts, maintenance and public relations.

AVIA 4060 Aerospace Education (2-3) Basic aerospace information dealing with the social, scientific, and technological importance of aviation and space with special applications for teachers who desire to utilize such information in the elementary and secondary school.

AVIA 4070 Aviation History (3) Major events, people, and changing technologies in the development of the present day air transportation system.

AVIA 4090 Aviation Law (3) Legal foundations and the federal and state regulatory functions which influence aviation and those who work in the industry. Prerequisites: MGT 3325 or CTE 3060; Senior standing. FA, SP, SU.

AVIA 4091 Regulatory Policy Seminar (4: 2 lecture, 2 lab) This seminar course surveys the evolution of federal civil aviation regulations in the United States including FAA requirements, regulations, and certifications including exposure to the aircraft design, manufacturing, maintenance, pilot, aircraft owner, operations, and airport regulatory environment. FA.

AVIA 4095 International Aviation (3) Aviation issues in international aviation including ICAO regulations and other factors related to the operation of airplanes in a global environment.

AVIA 4096 International Policy Seminar (3: 2 lecture, 1 lab) This seminar course surveys the evolution of the international regulatory environment including international requirements, regulations, and certifications including exposure to the aircraft design, manufacturing, maintenance, pilot, aircraft owner, operations, and airport regulatory environment. Prerequisite: AVIA 4095 or concurrently. SP.

AVIA 4220 Transport Aircraft Systems* (2: 2 lecture, 0 lab) Comparison studies of systems on major types of transport category aircraft and the in-flight management of those systems. Field trips to major airlines are included in the instructional sequence of the course. Prerequisite: AVIA 2340. An additional fee is associated with this course. *Not available for graduate credit. An additional fee is associated with this course. FA, SP.

AVIA 4250 Flight Management Systems (3) Familiarization with use of Flight Management Systems including practice flights in a 737 NG Flight Training Device. Use of airline dispatch release documents for the programming of the training device from preflight to shutdown. Prerequisite: AVIA 4220. An additional fee is associated with this course.

AVIA 4310 Air Traffic Control (2) Purposes, activities and operational procedures of air traffic control centers, towers and flight service stations. Study will include both standard and emergency services available from ATC/FSS systems.

AVIA 4330 Sport Aviation (2: 2 lecture, 0 lab) Sailplanes, hot air balloons, and related sport aircraft. Students will have flying experience in either sailplanes or hot air balloons. Flight fees are required to cover expenses of flight instruction. Principles of organizing fly-ins, air shows, and contests.

AVIA 4350 Aviation Weather (3) Meteorology for pilots with information for understanding and interpreting aviation weather reports and forecasts, weather hazards including wind shear, turbulence, icing and visibility restrictions. Prerequisite: AVIA 1310.

AVIA 4370 Advanced Flight Crew Management (3) Advanced flight crew operations with emphasis on the transition of the professionally qualified pilot into a highly skilled member of a flight management team with knowledge of cockpit resource management, high speed and high altitude flight techniques, turbine-powered operations and advanced avionics systems. Prerequisite: AVIA 4250. An additional fee is associated with this course. FA, SP.

AVIA 4380 Flight Operations Management (3) Airline flight operations management principles and applications. FA, SP.

AVIA 4420 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. Prerequisites: MGT 3325 or CTE 3060; Senior standing. FA, SP, SU.

AVIA 4430 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.

AVIA 4500 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. Prerequisites: MGT 3325 or CTE 3060; Senior standing. FA, SP, SU.

AVIA 4999 Integrative Studies Capstone* (3) Challenges the student to perform as an effective member of an air operations management team using critical thinking, decision making and ethics. Prerequisites: senior standing; MGT 3325 or CTE 3060. *Not available for graduate credit.

BADM - Business Administration

BADM 1400 Business Orientation (1) Business Orientation is designed to facilitate students' orientation to the School of Business Administration (SoBA) and the University of Central Missouri. This course is available for Business Administration students and will count for free elective credit. Topics will include university resources, academic skills, time management, setting and achieving goals, as well as future careers choices within the six HCBPS emphasis areas including Accounting, Economics, Finance, Marketing, Management, and Computer Information Systems. FA.

BADM 2000 Orientation to HCBPS (0) Seminar course to orient and inform transfer students regarding Harmon College of Business and Professional Studies (HCBPS) and UCM requirements, policies, and procedures.

BIOL - Biology

BIOL 1000 The Discipline of Biology and Earth Science (1) An introduction to biology and earth science as an academic endeavor including consideration of the subdisciplines of biology and earth science, requirements of students, and professional opportunities. Prerequisite: declaration of major in biology or earth science.

BIOL 1003 Introduction to the Sciences: Ecology (3) Introduction to biological science with emphasis on scientific methodology, ecological concepts regarding populations, communities and ecosystems and the impact of humans on the natural world. No laboratory included. Not available to those with credit in BIOL 1004.

BIOL 1004 Introduction to the Sciences: Ecology (4: 3 lecture, 1 lab) Introduction to biological science with emphasis on scientific methodology, ecological concepts regarding populations, communities and ecosystems and the impact of humans on the natural world. Laboratory included. Not available to those with credit in BIOL 1003.

BIOL 1005 Introduction to Environmental Science (3) Environmental science as an integrative study of human interaction with the environment that seeks to meet the needs of students with little background in science.

BIOL 1006 Environmental Science/Ecology Lab (1:1 lab) Introduction to biological science with emphasis on scientific methodology, ecological concepts regarding populations, communities and ecosystems, and the impact of humans on the natural world. Must be taken concurrently with BIOL 1003 or BIOL 1005.


BIOL 1007 Plants and Society (4: 3 lecture, 1 lab) Introduction to science with an emphasis on the economic uses of plants that are important to society. The course introduces the student to basic vocabulary and principles of the study of economically important plants.

BIOL 1110 Principles of Biology (3) Examination of basic biological principles including the scientific method, biological molecules, cellular function and structure, photosynthesis, respiration, metabolism, cell mitosis, genetics, evolution, diversity, and ecology.

BIOL 1111 Plant Biology (4: 3 lecture, 1 lab) Examination of basic biological principles including the scientific method; macromolecules of life; cellular structure, function, and replication; and plant form, function and diversity. Laboratory included. An additional fee is associated with this course.


BIOL 1112 Animal Biology (4: 3 lecture, 1 lab) Introduction to the evolution and classification of the metazoa with emphasis on the form and function of selected invertebrate and vertebrate animals. An additional fee is associated with this course.

BIOL 2010 Human Biology (3) An overview of human biology, emphasizing physiology, development, health, interpersonal and environmental interactions.

 **BIOL 2020 General Ecology (3)** An introduction to the major concepts of ecology in the context of evolution and the ecology of populations, communities, and ecosystems. Prerequisite: BIOL 1110 and BIOL 1111 or BIOL 1112.

BIOL 2401 Anatomy and Physiology I (4: 3 lecture, 1 lab) A functional study of cellular and metabolic processes and cardiovascular, lymphatic, respiratory and digestive systems integrated with a study of pertinent structures. Prerequisite: CHEM 1103 or CHEM 1104 or CHEM 1131. An additional fee is associated with this course.

BIOL 2402 Anatomy and Physiology II (4: 3 lecture, 1 lab) A functional study of temperature, water and electrolyte balances and skeletal, muscular, neural, endocrine and reproductive systems integrated with a study of pertinent structures. Prerequisite: BIOL 2401. An additional fee is associated with this course.

 **BIOL 2510 Basic Genetics (3)** Survey of heredity with emphasis on classical and modern genetics in context of human diversity, health and impact on society and the environment. Prerequisite: ENGL 1020 or ENGL 1080.

BIOL 2512 Cell Biology (3) A study of cellular macromolecules, DNA replication, transcription, and translation; cellular organelles, cytoskeleton, energetics, division; and the biology of the cancer cell. Prerequisite: BIOL 1110 or BIOL 1112.

BIOL 3211 Comparative Anatomy (4: 2 lecture, 2 lab) Comparative morphology of the early development and evolution of the organ systems of vertebrates. Laboratory study of representative vertebrates. Prerequisites: BIOL 1110 and BIOL 1112. An additional fee is associated with this course.

BIOL 3213 Embryology of Vertebrates (3: 2 lecture, 1 lab) Germ cells, fertilization, and development of systems, organs, and tissues of vertebrate embryos. Prerequisites: BIO 1110 and BIOL 1112 or BIOL 3402; and CHEM 1104 or CHEM 1131. An additional fee is associated with this course. FA.

BIOL 3215 Medical Terminology (2, 3) The language of medical and paramedical practices. Terminology related to organ systems of the body is presented with emphasis on Latin and Greek roots. May not be repeated for credit. Prerequisites: One biology course.


BIOL 3401 Human Anatomy (3: 1 lecture, 2 lab) The systematic study of human anatomy, including the integumentary, skeletal, muscular, nervous, cardiovascular, lymphatic and immune, respiratory, urinary, digestive, endocrine, and reproductive systems. Prerequisite: CHEM 1103 or CHEM 1104 or CHEM 1131. An additional fee is associated with this course.

BIOL 3402 Human Physiology (5: 4 lecture, 1 lab) The study of physiological processes of humans, including membranes, muscle, nervous, cardiovascular, respiratory, renal, gastrointestinal, endocrine and reproductive physiology. Prerequisite: BIOL 3401. An additional fee is associated with this course.

BIOL 3410 Forensic Science (3) Theoretical and hands-on applications of forensic science including types of deaths, taphonomy, toxicology, body fluid and blood analysis, ballistics and trace evidence determinations. Prerequisites: BIOL 2010 or BIOL 3401, and CHEM 1132.

BIOL 3413 Immunology (3) A survey of the field of immunology including the types of immune responses, antibody synthesis, antigen-antibody interactions, hypersensitivity, immunity to infection, and the design of laboratory techniques for immunological screening. Prerequisite: BIOL 3401 or BIOL 3431. SP.

BIOL 3414 Histology (3: 2 lecture, 1 lab) The functional morphology of selected tissues at the light microscopic level. Laboratory involves practice in slide reading. Prerequisite: BIOL 3211 or BIOL 3402 or BIOL 3431. An additional fee is associated with this course. FA.

 **BIOL 3431 Animal Physiology (4: 2 lecture, 2 lab)** Animal functions in terms of their needs for oxygen, food, energy, temperature, water, movement, information, and integration. Prerequisites: BIOL 1110 and BIOL 1112 or AGRI 3410; and CHEM 1104 or CHEM 1131. An additional fee is associated with this course.

BIOL 3511 Genetics (4: 3 lecture, 1 lab) Hereditary principles and their application to classical and molecular genetics. Laboratories emphasize inquiry-based learning applied to exercises using Mendelian genetics and DNA technology. Prerequisites: BIOL 2510 or BIOL 1110 or BIOL 1111 or BIOL 3402; and CHEM 1131; and MATH 1111 or MATH 1150 or MATH 1151 or MATH 1620 or MATH 1300. An additional fee is associated with this course. FA.


BIOL 3610 Basic Microbiology (3) A lecture-only introduction to the basic microbial concepts including various microbial classes, genetics, habitats, cell structure, metabolism, modes of transmission, and control methods. Not available for Biology majors or minors. Prerequisites: BIOL 1110 or BIOL 3402; and CHEM 1104 or CHEM 1131.

BIOL 3611 Microbiology (4: 3 lecture, 1 lab) An introduction to the major groups of microorganisms including their cell structure, metabolism, genetics, and ecology. Emphasis is placed upon the bacteria and viruses. Prerequisites: BIOL 1110 or BIOL 3402; and CHEM 1104 or CHEM 1131. An additional fee is associated with this course.

BIOL 3709 Dendrology (4: 3 lecture, 1 lab) The classification, ecology, economics, identification, morphology, and distribution of woody plants. Prerequisite: BIOL 1111.

BIOL 3711 Plant Identification (4: 3 lecture, 1 lab) A basic course in plant identification, using classification, nomenclature, collection and preservation techniques. Involves much field and lab work. Prerequisite: BIOL 1111 or AGRI 1600.

BIOL 3712 Field Natural History (4: 2 lecture, 2 lab) Provides basic experience in field and laboratory identification of local plants and animals and an introduction to environmental awareness. This is a background course for all courses in field biology and is especially useful to teachers and pre-professional students. Prerequisites: BIOL 1110, BIOL 1111, BIOL 1112 and BIOL 2020. An additional fee is associated with this course.

 **BIOL 3721 Wildlife Management (3)** Wildlife resources of North America and their importance in our economic and cultural life; biological methods of preservation, restoration and management. Prerequisites: BIOL 1110 and BIOL 2020.

BIOL 4000 Biology Colloquium* (1) Investigation of professional opportunities in biology. Evaluation of the program by students and assessment of student progress in biology. Prerequisite: 24 semester hours of biology. *Not available for graduate credit.

BIOL 4001 Ecology Senior Seminar* (1) Capstone course for biology majors where assessments are completed including a nationally administered exit exam, ACAT in Biology. Strategies for building careers in ecological, wildlife and conservation biology are discussed. Prerequisite: senior standing. *Not available for graduate credit.

BIOL 4002 Life Science Senior Seminar* (1) Capstone course for biology majors where assessments are completed including a nationally administered exit exam, MFT in Biology. Strategies for building careers in molecular, cellular and physiological/biomedical biology are discussed. Prerequisite: senior standing. *Not available for graduate credit.

BIOL 4011 Special Problems in Biology (1-4) Individual work under supervision of a staff member. Problems may be undertaken in any field of biology. *May be repeated for a maximum of 4 semester hours.* Prerequisite: consent of instructor.

BIOL 4012 Special Projects in Biology (1-8) *May be repeated for a maximum of 9 semester hours.* With permission of the Department Chair, majors in medical technology may repeat for a maximum of 30 semester hours. Prerequisite: consent of instructor.

BIOL 4013 Introduction to Experimental Design and Analysis (3) This course covers the conceptualization, implementation, analysis, and communication of research in biology. Prerequisites: BIOL 1110; MATH 1111 or MATH 1150 or consent of instructor.

BIOL 4014 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. Prerequisite: must be a major in the Department of Biological Sciences with at least 60 hours of credit.

BIOL 4015 Clinical Immunohematology* (4) Clinical Immunohematology, a component of the Medical Technology Clinical Internship as part of the last year of the degree. Prerequisite: Acceptance into an affiliated Clinical Laboratory Science/Medical Technology Program. *Not available for graduate credit. SU.

BIOL 4016 Clinical Urinalysis* (2) Clinical Urinalysis, a component of the Medical Technology Clinical Internship as part of the last year of the degree. Prerequisite: Acceptance into an affiliated Clinical Laboratory Science/Medical Technology Program. *Not available for graduate credit. SU.

BIOL 4017 Clinical Microbiology* (7) Clinical Microbiology, a component of the Medical Technology Clinical Internship as part of the last year of the degree. Prerequisite: Acceptance into an affiliated Clinical

Laboratory Science/Medical Technology Program. *Not available for graduate credit. FA.

BIOL 4018 Clinical Immunology* (5) Clinical Immunology, a component of the Medical Technology Clinical Internship as part of the last year of the degree. Prerequisite: Acceptance into an affiliated Clinical Laboratory Science/Medical Technology Program. *Not available for graduate credit. FA.

BIOL 4019 Clinical Biochemistry* (7) Clinical Biochemistry, a component of the Medical Technology Clinical Internship as part of the last year of the degree. Prerequisite: Acceptance into an affiliated Clinical Laboratory Science/Medical Technology Program. *Not available for graduate credit. SP.

BIOL 4020 Clinical Hematology* (4) Clinical Hematology, a component of the Medical Technology Clinical Internship as part of the last year of the degree. Prerequisite: Acceptance into an affiliated Clinical Laboratory Science/Medical Technology Program. *Not available for graduate credit. SP.

BIOL 4021 Clinical Special Topics* (1) Clinical Special Topics, a component of the Medical Technology Clinical Internship as part of the last year of the degree. Prerequisite: Acceptance into an affiliated Clinical Laboratory Science/Medical Technology Program. *Not available for graduate credit. SP.

BIOL 4022 Clinical Education / Practice IV* (4-6) A component of the Radiologic Technology Internship as part of the last year of the degree. Prerequisite: Acceptance into a JCERT accredited affiliated program. *Not available for graduate credit.

BIOL 4023 Radiographic Anatomy and Physiology* (0-8) A component of the Radiologic Technology Internship as part of the last year of the degree. Prerequisite: Acceptance into a JCERT accredited affiliated program. *Not available for graduate credit.

BIOL 4024 Radiographic Positioning and Procedure* (2-4) A component of the Radiologic Technology Internship as part of the last year of the degree. Prerequisite: Acceptance into a JCERT accredited affiliated program. *Not available for graduate credit.

BIOL 4025 Medical Imaging* (2-10) Includes all aspects of digital imaging acquisition and display. Included are topics regarding understanding of the components, principles and operation of digital imaging systems. Factors that impact image acquisition, display, archiving and retrieval are discussed. Guidelines for selecting exposure factors and evaluating images within the digital system assist students to bridge between film based and digital imaging systems. *Not available for graduate credit.

BIOL 4026 Radiation Biology and Protection* (2-3) Continues covering the fundamentals of basic radiation biology as well as basic radiation safety theory. Biology topics will include the fundamental principles of radiation biology, molecular and cellular radiobiology and the early and late effects of radiation. Radiation protection topics will include Health Physics practices, considerations for design of equipment and facilities, as well as procedures for ensuring the safety of radiation workers, patients, and members of the public. *Not available for graduate credit.

BIOL 4027 Pathology I* (2-3) Examination of pathologic conditions related to various radiologic procedures. Introduction to pathology is the study of significant diseases, which present radiologic findings. Studies will include the diagnosis, etiology, symptoms, treatment and radiographic correlations of pathologic conditions with relationship to cell pathology, inflammation, bone and joint disease, gastrointestinal system, respiratory, urinary system, male and female reproduction system. How to select proper exposure factors for the pathology that is in existence and how the pathology will appear on radiographic images. *Not available for graduate credit.

BIOL 4028 Clinical Education / Practice V* (2-6) A clinical experience with limited supervision for continued emphasis in application and evaluation of procedures involving all aspects of radiology. The student will continue to expound on Clinical Education 301, 302, 303 and 404 exams. *Not available for graduate credit.

BIOL 4029 A&P Cross Sectional Anatomy* (0-3) Study of cross sectional anatomy of the head, chest, abdomen and extremities with correlation to Computed Tomography (CT) and Magnetic Resonance Imaging (MRI). *Not available for graduate credit.

BIOL 4030 Pathology II* (0-3) Examination of pathologic conditions related to various radiologic procedures. Introduction to pathology is the study of significant diseases, which present radiologic findings. Studies

will include the diagnosis, etiology, symptoms, treatment and radiographic correlations of central nervous system, cardiovascular, endocrine system, fluid and hemodynamic disorders and liver, pancreas, biliary systems, neoplasia, breast, skin and muscles. How to select proper exposure factors for the pathology that is in existence and how the pathology will appear on radiographic images. *Not available for graduate credit.

BIOL 4031 Quality Assurance / Equipment Operations* (2-3) Quality control and quality assurance in the radiology department. Test tools and equipment utilized to ensure appropriate images. State and federal guidelines which are applicable to film screen radiography as well as digital radiography equipment. Laboratory experiments will be conducted to reinforce didactic lessons. *Not available for graduate credit.

BIOL 4032 Imaging Modalities* (2-3) To offer the students information about numerous imaging modalities available in the field of radiologic technology. *Not available for graduate credit.

BIOL 4033 Radiography Curriculum Review / Seminar* (2-3) The student will participate in testing modules provided by The College of St. Catherine's Developmental Testing Program for Radiography located in Minneapolis MN. The tests are comparative to registry examination questions. The results of the tests submitted on behalf of the SLH class of 2009 will be compared to students scores across the United States participating in the same type of testing program. *Not available for graduate credit.

BIOL 4034 Correctec* (2-3) Correctec has developed numerous computer programs to help radiography students learn the content required to be successful technologists and to pass the nationally required examination, the American Registry of Radiologic Technologists (ARRT). Correctec incorporated the review materials into an online review course. The online review course individualizes the learning experience by giving immediate feedback and review of the subject being tested. Additionally, the course is frequently updated to reflect the latest changes in terminology and content in the subject area. Students will submit units to instructor at specific intervals throughout the semester. *Not available for graduate credit.

BIOL 4035 Clinical Education / Practice VI* (2-6) Course emphasizes the development of expertise in all radiographic procedures with indirect supervision in proven competency areas and direct supervision in other related radiology areas. The student will continue to expound on Clinical Education 301, 302, 303, 404 and 405 exams. *Not available for graduate credit.

BIOL 4102 Evolution (3) Lecture and discussion of current and historical evolutionary theory. The process of scientific investigation will be contrasted with non-scientific methods. Prerequisites: BIOL 1110 or GEASC 1004 or instructor's consent.

BIOL 4210 Ichthyology (4: 3 lecture, 1 lab) A thorough examination of the biology of the fish with special emphasis on the fish of Missouri. Students will be expected to develop a detailed knowledge of the literature on ichthyology. Field trips at additional expense to the student are part of this course. An additional fee is associated with this course. Prerequisites: BIOL 1110 and BIOL 1112.

BIOL 4221 Mammalogy (4: 2 lecture, 2 lab) A thorough examination of the Class Mammalia, including anatomy, systematics, evolution, and ecology of these groups with special attention to identification of local forms. Students will be expected to develop a detailed knowledge of the literature on mammalogy. Prerequisites: BIOL 1110, BIOL 1112, and BIOL 2020. An additional fee is associated with this course. FA.

BIOL 4222 The Biological Perspective* (3) An examination of current issues from a biological perspective including the impact of biology on history and culture. For biology majors. Prerequisite: 22 semester hours of biology. *Not available for graduate credit.

BIOL 4223 Ornithology (4: 2 lecture, 2 lab) An examination of the ecology and biology of birds with special emphasis on the field study of locally occurring species. An additional fee is associated with this course. Prerequisites: BIOL 1110 and BIOL 1112.

BIOL 4232 Herpetology (4: 2 lecture, 2 lab) A thorough examination of the classes Amphibia and Reptilia, including anatomy, systematics, evolution and ecology of these groups with special attention to identification of local forms. An additional fee is assessed for this course. Prerequisites: BIOL 1110 and BIOL 1112 and BIOL 2020.

BIOL 4311 Parasitology (4: 2 lecture, 2 lab) Animal parasites, with emphasis on identification, morphology, biology, life histories, and host-parasite relationships. Prerequisite: BIOL 1112 and BIOL 2512. An additional fee is associated with this course. FA.

BIOL 4312 Entomology (4: 2 lecture, 2 lab) An introduction to the systematics, morphology, physiology, evolution, and ecology of insects. Prerequisites: BIOL 1110 and either BIOL 1111 or BIOL 1112. An additional fee is associated with this course. FA.

BIOL 4400 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. Prerequisite: BIOL 3431.

BIOL 4403 Environmental Physiology (4: 3 lecture, 1 lab) Physiological responses and adaptations to alterations in natural and man-generated environmental factors such as temperature, light cycles, pressure, water, ions, radiation, vibration, chemicals, microorganisms, and exercise. Prerequisite: BIOL 2402 or BIOL 3431. An additional fee is associated with this course.

BIOL 4411 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. Prerequisites: BIOL 1111; and CHEM 1104 or CHEM 1131. An additional fee is associated with this course.

BIOL 4511 Cytogenetics (4: 3 lecture, 1 lab) Examination of cellular and molecular mechanisms in cell division and their role in evolution and human health. Laboratory exercises include techniques for experimentally manipulating chromosomes and use of computer and video techniques. Prerequisites: BIOL 2512; and CHEM 1104 or CHEM 1131. An additional fee is associated with this course.

BIOL 4514 Molecular Biology (3) This course emphasizes how biological molecules interact to express cellular phenotypes. Transcriptional and translational controls of gene expression and the latest biotechnological advances are discussed. Prerequisite: BIOL 3511 and CHEM 1132. SP.

BIOL 4515 Molecular Technology Laboratory (2) This course emphasizes the proper use of laboratory equipment, molecular techniques, experimental design, and data analysis. Questions and experiments encountered in molecular biology are addressed. Prerequisite: BIOL 4514 or concurrent enrollment and CHEM 1132. An additional fee is associated with this course.

BIOL 4516 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. Prerequisites: BIOL 3511 and BIOL 2512.

BIOL 4517 Serology Laboratory (1) A combined immunology, hematology, and virology laboratory emphasizing cellular components and identification and differentiation by technological methodologies. Prerequisite: BIOL 3213 or BIOL 3414 or BIOL 3611 or BIOL 4311 or instructor consent. An additional fee is assessed for this course.

BIOL 4709 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. Prerequisites: BIOL 1111; BIOL 2020; BIOL 3709 or BIOL 3711; or instructor's consent.

BIOL 4710 Limnology (4: 2 lecture, 2 lab) Ecology of aquatic populations, communities, and ecosystems will be emphasized. Both lentic and lotic habitats will be examined. Field trips at additional expense to the students are part of this course. Prerequisite: BIOL 2020 or instructor's consent.

BIOL 4711 Animal Ecology (4: 3 lecture, 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. Prerequisites: BIOL 1110 and BIOL 1112 and BIOL 2020. An additional fee is associated with this course.

BIOL 4722 Conservation Biology (3) This is a synthetic course applying the multidisciplinary approaches of ecology, biogeography, evolution, genetics and economics to the global biodiversity crisis. Prerequisites: BIOL 1110, and BIOL 2020.

BIOL 4919 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. Prerequisite: Instructor consent. ONL.

BIOL 4950 Laboratory Intern (1)* Under direct supervision, students will assist in the preparation, supervision, and assessment (with the exception

of grading) of laboratory activities in the Department of Biology and Agriculture. *May be repeated for a maximum of 2 semester hours credit.* *Not available for graduate credit.

BIOL 4953 Ecology Field Course (1-6)* Advanced field methods and analysis of the physical, chemical, and ecological aspects of diverse marine 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: consent of instructor. *Not available for graduate credit.

BLAW - Business Law

In addition to any course prerequisites listed for the courses below, the Harmon College of Business and Professional Studies also enforces a course leveling prerequisite. This means that freshmen (those who have earned 0-29.5 semester hours of college credit) may enroll in 1000 level courses only, sophomores (completed 30-59.5 semester hours) may enroll in 2000 or 1000 level courses, juniors (completed 60-89.5 semester hours) may enroll in 3000, 2000 or 1000 level courses and seniors (all students who have earned 90 semester hours) may enroll in 4000 level courses or below.

BLAW 2720 Legal Environment of Business (3) Survey of a number of areas of law that are important to persons as citizens and as participants in economic activity. Included are the legal process, business ethics, contracts, torts, constitutional law, agency, business organization, and employment law. FA, SP, SU.

BLAW 2750 Legal and Ethical Decision Making in the Workplace (3) This course is designed to help students identify, analyze and resolve both ethical and legal issues they will encounter both early in their careers and in the years to come.

BLAW 3721 Law of Business Transactions (3) Comprehensive discussion of laws concerning the formation and performance of contracts, sale of goods transactions, creation and transfer of negotiable instruments and selected other areas of commercial law. Prerequisite: BLAW 2720. FA, SP, SU.

BLAW 4740 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. Prerequisite: BLAW 2720. FA.

BLAW 4750 Collective Bargaining (3) Roles and strategies of labor, management, and the Government as the active participants in the negotiation and performance of the labor contract. Prerequisite: BLAW 4740.

BTE - Business Teacher Education

BTE 1200 Applied Lab for Essentials of Managing Information (1) Reinforcement activities for students with limited background in computer applications and tools, along with tutoring to prepare students for BTE 1210 Essentials of Managing Information.

BTE 1210 Essentials of Managing Information (2) Instruction and application of digital tools and software to gather, evaluate, communicate, and use information, while adhering to academic guidelines for research and data management.

BTE 1530 Keyboarding (2) Touch operation of alphabetic, numeric, and symbol keys found on most computer keyboards, word processors, and typewriters; introduction to document formatting.

BTE 1532 Intermediate Keyboarding (3) Emphasis on building speed and accuracy. Includes document formatting. Prerequisite: Prior instruction in touch keyboarding.

BTE 2200 Business Math Problem Solving (3) This course provides students with mathematical skills needed to address basic financial and accounting business problems as applied to common business problems.

BTE 2560 Organizational Administration and Event Planning (3) Provides students with foundational knowledge of organizational administrative procedures including examination of leadership styles, and strategies for planning, conducting, and following up events.

BTE 3241 Principles of Marketing Education (3) An introduction to the basic principles of marketing education.

BTE 4210 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. Prerequisites: Admission to Teacher Education Program; senior standing or graduate status, or by departmental approval.

BTE 4220 Secondary Field Experience II* (1) Experiences in the secondary school classroom that provide the teacher candidate more advanced involvement in the teaching-learning process. Prerequisites: Admission to Teacher Education Program; should be taken concurrently with BTE 4230 during the Professional Semester. *Not available for graduate credit.

BTE 4230 Methods of Teaching Business-General* (2) Prerequisites: Admission to Teacher Education Program; double majors must take a methods course for each major; methods should be taken concurrently with BTE 4220 during the Professional Semester. *Not available for graduate credit.

BTE 4241 Coordination of Cooperative Education Programs (2) Organizing and implementing cooperative career and technical education programs.

BTE 4243 Curriculum Construction for Business and Marketing Education (3) Study of curriculum design and development of teaching materials in business and marketing education.

BTE 4250 Business/Marketing Education Practicum (1-3) Students will experience a supervised internship within the business or marketing environment. *May be repeated for a maximum of 6 semester hours.*

BTE 4260 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 and office administration as new technologies develop. Prerequisite: senior standing or graduate status.

BTE 4510 Desktop Publishing for Business (3) This course includes business desktop publishing concepts that utilize basic to intermediate design principles for creating comprehensive document layouts with polished professional-looking images. Prerequisite: BTE 4536 or departmental approval.

BTE 4535 Data Input Technologies* (2) Technologies and processes for managing data in an information system. Emphasizes efficient input methods and alternative technologies along with appropriate document formatting and information management. Prerequisite: Keyboarding speed of 35 wpm with 95 percent or higher accuracy on a 5-minute timed writing. *Not available for graduate credit.

BTE 4536 Integrated Productivity Applications* (3) Intermediate to advanced digital productivity tools for Information Management. Integrated projects and problem based learning focusing on spreadsheets and database business applications. Prerequisites: **BTE 1210** and **BTE 4535** with a grade of C or better. *Not available for graduate credit.

BTE 4550 Publishing Applications for Business (2) Business publishing using application tools and production fundamentals for print or web-ready documents and pages. Explores effective web communication techniques and principles of e-business. Prerequisite: BTE 4536 or departmental approval.

BTE 4560 Emerging Technologies for Business (3) Students will explore current technologies that focus on information management, dynamic communication, and collaboration in the digital business environment, considering attributes and benefits of each. Prerequisite: BTE 4536 or departmental approval.

CADD - Design & Drafting Technology

CADD 1100 Orientation to Drafting (1) Orientation to the philosophy, development, and current trends in the professional preparation for careers in drafting.

CADD 1105 Basic AutoCAD (1: 1 lecture, 0 lab) Basic application of AutoCAD to the solution of technical drawing problems for industry. Prerequisite: CADD 1110 or CTE 1300 must be taken concurrently. An additional fee is associated with this course.

CADD 1110 Fundamentals of Drafting (3: 3 lecture, 0 lab) Introduction to the graphic language of technical drawing and communications. Multiview and pictorial technical drawing using freehand, manual and computer-aided drafting techniques. Prerequisite: CADD 1105 with a grade of C or better or concurrently. An additional fee is associated with this course.

CADD 1170 Introduction to Computer-Aided Drafting (2: 2 lecture, 0

lab) Fundamental applications of computer-aided drafting to the solution of two-dimensional drawing problems for industry. Prerequisite: CADD 1105 with a C or better or concurrently and (CADD 1110 with a C or better or concurrently or CTE 1300). An additional fee is associated with this course.

CADD 2100 Sophomore Design/Drafting Seminar (0.5) Seminar for study of current topics in design/drafting through discussions, activities, and outside speakers. Students will continue to develop leadership skills, relationships with peers and faculty and plan a successful career. Prerequisite: Sophomore standing.

CADD 2120 Machine Drafting (3: 3 lecture, 0 lab) Working drawings of machine parts, using tables, tolerancing, sheet metal and welding drawings. Prerequisite: (CADD 1110 with a C or better or CTE 1300) and CADD 1170 with a C or better. An additional fee is associated with this course.

CADD 2150 Descriptive Geometry for Engineering Technology (3: 3 lecture, 0 lab) A basic course in graphic science for engineers, drafters or drafting teachers. Prerequisite: CADD 1110 with a C or better or CTE 1300 with a C or better.

CADD 2160 Structural Drafting (3: 3 lecture, 0 lab) A study of structural systems utilizing metal, concrete, masonry and wood, including the development of appropriate engineering calculations and working drawings. Prerequisite: CADD 1110 with a C or better or CTE 1300 with a C or better. An additional fee is associated with this course.

CADD 2171 Introduction to MicroStation (3: 3 lecture, 0 lab) Applications of MicroStation to the solution of technical drawing problems for industry. An additional fee is associated with this course.

CADD 2180 Technical Illustration (3: 3 lecture, 0 lab) Pictorial representation using various illustrative media. Prerequisite: CADD 1170 with a C or better.

CADD 3100 Junior Design/Drafting Seminar (0.5) Seminar for study of current topics in design/drafting through discussions, activities, and outside speakers. Students will continue to develop leadership skills, relationships with peers and faculty and plan a successful career. Prerequisite: Junior standing.

CADD 3150 Civil Drafting (3: 3 lecture, 0 lab) Civil drafting problems using survey data applicable to grading cuts and fills, drainage systems, municipal utilities, plotting and zoning are studied. Drawings are developed using manual and computer-aided drafting techniques. Prerequisite: CADD 1110 with a C or better or CTE 1300 with a C or better; and **GEOG 2212**; or consent of instructor. An additional fee is associated with this course.

CADD 3160 Residential Architectural Drawing (3: 3 lecture, 0 lab) Principles of planning residential structures including selection of materials, methods of construction, and development of detailed working drawings. Prerequisite: CADD 1110 with a C or better or CTE 1300 with a C or better. An additional fee is associated with this course.

CADD 3170 Computer Drafting Systems (3: 3 lecture, 0 lab) Computer-aided drafting involving operating systems, programming languages, macros, networks, and customization of software. Prerequisite: CADD 1170.

CADD 3175 Advanced Microstation (3: 3 lecture, 0 lab) Advanced applications of MicroStation for the solution of technical drawing problems for industry. Management of CADD hardware and applications software. Prerequisite: CADD 2171 with a C or better.

CADD 4100 Senior Design/Drafting Seminar (1) Seminar for study of current topics in design/drafting through discussions, activities, and outside speakers. Students will continue to develop leadership skills, relationships with peers and faculty and plan a successful career. Prerequisite: senior standing.

CADD 4114 Advanced Technical Problems in Drafting (1-3) Individual or group work on advanced technical problems in drafting. Provide exploration of content not available through normal course offerings. *May be repeated for a maximum of 6 semester hours.* Prerequisites: 2.5 GPA, written contract/proposal with objectives and written department consent.

CADD 4124 Geometric Dimensioning and Tolerancing Principles for Engineering Technology (3: 3 lecture, 0 lab) Basic theory and application of geometric dimensioning and tolerancing practices applicable to working drawings of machine parts. Prerequisites: CADD 2120 with a C or better and ENGT 2530.

CADD 4150 Applied Civil Design/Drafting (3: 3 lecture, 0 lab) 3D modeling applications for design objects such as contours, survey points,

land surfaces, and road alignments. These concepts will assist graduates working in the fields of civil design and engineering. Prerequisites: CADD 3150 with a grade of C or better and CMGT 2340. Available to graduate students with instructors consent.

CADD 4162 Commercial Architectural Design/Drafting (BIM) (3: 3 lecture, 0 lab) Light commercial architectural plans and problems are studied and drawings are developed using manual and CADD techniques including BIM. Prerequisites: CADD 2160 with a grade of C or better and CMGT 2020. An additional fee is associated with this course.

CADD 4170 Computer-Aided Drafting and Design for Engineering Technology (3: 3 lecture, 0 lab) Advanced industrial applications of computer-aided drafting systems. Three dimensional modeling and design using interactive graphics techniques and standard design elements. Prerequisite: CADD 1170 with a C or better and ENGT 2530. An additional fee is associated with this course.

CADD 4171 Production Design Drafting (3: 3 lecture, 0 lab) 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. Prerequisites: CADD 2120 and CADD 4170 with a C or better and ENGT 2530.

CADD 4172 MEP (Mechanical, Electrical & Plumbing) & Industrial Piping Design/Drafting (3: 3 lecture, 0 lab) MEP (Mechanical, Electrical & Plumbing) systems are designed and drawings are developed using manual and CADD techniques including BIM. Prerequisite: CADD 4162 with a grade of C or better.

CADD 4174 Machine Design (3: 3 lecture, 0 lab) Drafting problems involving the elements of the designing and/or redesigning of mechanisms and machines. Prerequisites: CADD 2120 with a grade of C or better and CADD 4170 with a grade of C or better; CMGT 2020 and ENGT 2530. An additional fee is associated with this course.

CADD 4175 Advanced 3D Analysis and Rapid Prototyping (3: 3 lecture, 0 lab) Advanced course which surveys the application of computer drafting and design systems and how they relate to 3D analysis and rapid prototyping. Prerequisites: CADD 4170 with a grade of C or better and CMGT 2020. An additional fee is associated with this course.

CADD 4180 Industrial Design (3: 3 lecture, 0 lab) Study and application of the design process and design principles related to industrial products. Prerequisite: CADD 4170 with a grade of C or better. An additional fee is associated with this course.

CD - Communication Disorders

CD 1000 Introduction to Communication Disorders (3) Etiology, incidence, and characteristics of communicative disorders. Corequisite: CD 1800.

CD 1401 American Sign Language 1 (3) Fundamental principles of ASL production and comprehension; the building of basic sign vocabulary for words and expressions; exploration of deaf history and culture.

CD 1402 American Sign Language 2 (3) A continuation of ASL 1 with attention to expanding and reinforcing receptive/expressive signing skills and awareness of cultural contexts of American Sign Language usage. Prerequisite: CD 1401 or equivalent (with permission of instructor) with a C or better

CD 1800 Observation of Clinical Practicum in Communication Disorders (1) Twenty-five (25) clock hours of supervised observation in the evaluation and treatment of children and adults with disorders of speech, language, and hearing. Corequisite: CD 1000.

CD 2000 The Bases of Speech and Language (2) Intended for non-majors; basics of normal communication, overview of communication impairments in children and effective instructional strategies, principles of collaboration with SLPs.

CD 2301 American Phonetics (3) Sound system of American English with emphasis on the international phonetic alphabet and dialects.

CD 3301 Anatomy and Physiology of Speech and Swallowing (2) The anatomical and physiological bases for normal production of speech and swallowing.

CD 3304 Speech Science (3) An introduction to basic physiological and acoustical properties of human communication. Prerequisite: admission to the undergraduate program in speech-language pathology.

CD 3503 Principles of Clinical Management (3) Fundamental clinical concepts as a foundation for diagnosis and intervention in communication disorders. Prerequisite: admission to the undergraduate program in speech-

language pathology.

CD 4102 Counseling Persons with Communication Disorders and Their Families (2) Application of counseling and interviewing theory to individuals with communication disorders of all ages and their families. Ample opportunity to apply knowledge will be provided. Prerequisite: admission to the undergraduate program in speech-language pathology or with departmental approval.

CD 4103 Introduction to Evidence Based Practice in Communication Disorders (2) Introduction to the use of current research results to make clinical decisions regarding client care. Prerequisite: admission to the undergraduate program in speech-language pathology or departmental consent.

CD 4401 Language Development (3) Theories and sequence of normal language acquisition.

CD 4402 Language Acquisition in Children with Developmental Disabilities (2) Intended for non-majors; theories and sequences of language development with emphasis on language acquisition and deficiencies exhibited by children with various developmental disabilities.

CD 4501 Basic Neuroscience for Speech-Language Pathologists (2) An introduction to human nervous system structure and function, with special emphasis on neural processing for normal speech, language, hearing and swallowing. Prerequisite: admission to the undergraduate program in speech-language pathology or with departmental approval.

CD 4504 Introduction to Articulation and Phonological Disorders (3) An introduction to articulation and phonological disorders; diagnostic procedures and treatment approaches; knowledge of multicultural issues related to these disorders. Prerequisite: admission to the undergraduate program in speech-language pathology or departmental consent.

CD 4505 School-age Issues in Language and Literacy (3) Types of language and literacy disorders; formal/informal assessment procedures of language and literacy skills; intervention procedures for the remediation of language and literacy disorders. Prerequisite: admission to the undergraduate program in speech-language pathology or departmental consent.

CD 4510 Multicultural Issues in Communication Disorders (2) Focused study of various issues important to multiculturalism and diversity when assessing and treating individuals with communication disorders from diverse backgrounds. Prerequisite: admission to the undergraduate program in speech-language pathology or with departmental approval.

CD 4512 Best Practices in Early Childhood Intervention (3) Nature of communication disorders in the birth – five population, special emphasis on assessment and intervention models. Required for participation in graduate level ECCSEP practicum. Prerequisite: admission to the undergraduate program in speech-language pathology or with departmental approval.

CD 4701 Introduction to Audiology (3) Hearing impairment as related to basic acoustics and psycho acoustics, anatomy and physiology of the ear, and theories of hearing. Prerequisite: admission to the undergraduate program in speech-language pathology.

CD 4706 Hearing Measurement (3) Hearing measurement procedures including pure tone and speech audiometry and some site of lesion testing. Prerequisite: CD 4701 and admission to the undergraduate program in speech-language pathology.

CD 4708 Aural Rehabilitation (3) Effects of hearing impairment of verbal communication. Principles and methods of aural rehabilitation. Prerequisite: CD 4706.

CD 4802 Undergraduate Clinical Practicum I* (1) Orientation to specialized practice in the management of communication disorders for first time clinicians. Prerequisites: admission to the undergraduate program in speech-language pathology or consent of department chair; overall GPA of 3.0; a grade of C or better in all previous CD courses, and CD 3503, CD 4701, and either CD 4504 or CD 4505; the remaining CD 4504 or CD 4505 must be taken concurrently with the first semester of clinical practicum. An additional fee is associated with this course. *Not available for graduate credit.

CD 4803 Undergraduate Clinical Practicum II* (1) Specialized practice in the management of communication disorders. An additional fee is associated with this course. Prerequisites: admission to the undergraduate program in speech-language pathology or consent of department chair; overall GPA of 3.0; a grade of C or better in all previous CD courses, and CD 3503, CD 4701, CD 4802 and either CD 4504 or CD 4505. *Not available for graduate credit.

CD 4900 Special Topics in Communication Disorders (1-3) Selected topics of contemporary interest in speech-language pathology and audiology; variable content. *May be repeated for a maximum of 6 semester hours.* Prerequisite: consent of department.

CDM - Crisis and Disaster Management

CDM 2000 Special Activities in Crisis and Disaster Management (3) Engaged learning and service learning experiences that provide a context to information presented in the classroom. Emergency services, military, and field experiences contribute to knowledge. *May be repeated.*

CDM 3000 Introduction to Crisis and Disaster Management (3) Natural, technological, and man-caused crises and disasters. All-hazards mitigation, preparedness, response, and recovery systems. Roles and responsibilities of government, non-governmental organizations, business, and industry.

CDM 3035 Emergency Response Planning (3) Management of resources during operations. Emphasis on warning systems, emergency operations centers, and incident command systems. Topics include human behavior, public health and safety. Prerequisites: CDM 3000 or permission.

CDM 3225 Hazardous Materials Emergency Response (3) Properties of hazardous materials. Development and implementation of plans/programs required for safe response. Utilization of tools and techniques during response to spills and releases. Prerequisites: CDM 3000 or permission.

CDM 3400 Community Mitigation and Recovery (3) Concept and meaning of risk. Integration of mitigation during development, post-disaster redevelopment, and maintenance; formation of disaster-resistance communities, including sociological and political considerations. Prerequisites: CDM 3000 or permission.

CDM 4000 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. *May be repeated.*

CDM 4015 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.

CDM 4035 Disaster and Society* (3) Impact of disasters on social systems. Disaster mythology; individual and community response. Communications within affected groups and organizations. Prerequisite: CDM 3000 or permission. *Not available for graduate credit.

CDM 4200 Disaster Management Technology* (3) Technologies used in support of disaster operations. Tools and techniques to collect, analyze, and manage information. Including communication systems, modeling, mapping, and emergent technologies. *Not available for graduate credit.

CDM 4215 Environmental Disasters (3) Examine man-made, industrial, and technological events that produce environmental disasters. Explore the sociopolitical issues that contribute to environmental disasters.

CDM 4245 Managerial Issues in Hazardous Materials* (3) Addresses managerial concerns of the Incident Commander at the community/organization level. Emphasis is placed on strategic goals and decision-making. Other subjects covered include response planning, personnel and training, operation of command posts, and use of the Incident Command System. Prerequisites: CDM 3000 or permission. *Not available for graduate credit.

CDM 4400 Research Issues in Crisis and Disaster Management* (3) Introduces the research process, ethics, methodology, and data analysis. Preparation of academic papers, written reports, and proposals. Prerequisites: CDM 3000 or consent. *Not available for graduate credit.

CDM 4515 Safety and Health for Emergency Responders* (3) Principles of risk management for emergency services organizations. Emphasis is placed upon supervisory and managerial responsibilities for responder safety and health. *Not available for graduate credit.

CDM 4535 Emergency Services Management* (3) Principles of management for emergency services, including community-focused leadership, strategic planning, and integrated administrative skills. *Not available for graduate credit.

CDM 4575 Emergency Services Personnel Management* (3) Personnel management, organizational development, recruitment and selection, performance management systems, and collective bargaining in the context of emergency services. *Not available for graduate credit.

CDM 4715 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. Prerequisites: CDM 3000 or permission.

CDM 4735 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.

CDM 4745 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. Prerequisites: CDM 3000 or permission.

CDM 4800 Integrated Emergency Management* (3) Factors influencing multi-agency coordination during phases of disaster management.

Explores relationships between public and private sector institutions and collaboration during emergency incidents. Prerequisites: CDM 3000 or permission, and senior standing. *Not available for graduate credit.

CDM 4900 Technology Application Studies* (3) Individual or group study of emerging technology applications related to crisis and disaster management. *May be repeated for a maximum of 6 hours.* Prerequisite: departmental approval. *Not available for graduate credit.

CDM 4910 Field Exercise Project* (1-3) Individual or group participation in approved community, institutional, or agency emergency exercises or disaster drills. *May be repeated for a maximum of 3 hours.* Prerequisite: departmental approval. *Not available for graduate credit.

CDM 4990 Practicum in Crisis and Disaster Management* (3-6) Practicum experiences are based upon student preparation and interest. *May be repeated for a maximum of 6 hours.* Prerequisite: departmental approval and junior standing. *Not available for graduate credit.

CFD - Child and Family Development

CFD 1010 Individual and Family Relationships (3) Focus on family relationships and personal development including topics of self-esteem, informed decision making, gender roles, love and mate selection, stress and crisis management, communication and conflict resolution, domestic violence, sexuality, parenting and human diversity. FA, SP, SU. ONL.

CFD 1220 Child Development (3) An introduction to the field of child development. Emphasis is on dynamic forces underlying growth and change. Techniques in the study and observation of children. FA, SP, SU. ONL.

CFD 1230 Observation of Children (2) Techniques of observation and actual observation of children. A criminal background check will be completed prior to observations. FA, SP. ONL.

CFD 3230 Family Systems and Lifespan Development (3) Family relationships and human development with focus on change over the course of the family life cycle. FA, SP, SU. ONL.

CFD 3240 Parent-Child Interaction (3) Development and understanding of adult-child interaction in the family setting. FA, SU. ONL.

CFD 3250 Organization and Administration of Programs for Young Children (3) Methods and procedures for setting up and administering a variety of programs for young children. Includes study of state licensing. FA, SP, SU. ONL.

CFD 3260 Youth Culture and Development (3) This online course will examine the cultural contextual factors that affect youth from a holistic perspective within and outside the family unit. The course will provide an understanding of the cultural heritage of differing family structures and types. Students will explore the social and educational processes experienced by youth through in-depth reading, writing, discussion, critical listening, viewing of contemporary videos, and interviews with youth and families. Students will be encouraged to think critically about society and culture, gain further knowledge of how different cultural youth groups fit historically into society, and examine the results of how history has shaped the current cultural climate of the U.S. ONL.

CFD 3710 Field Experience in Child and Family Development (3) Supervised training and work experience in approved professional organizations in the field of child and family development. Prerequisites: CFD 1220 and CFD 1230. FA, SP. ONL.

CFD 4000 Special Projects in Child and Family Development (1-3) Investigation of contemporary problems and issues in Child and Family Development. *May be repeated for a maximum of 6 semester hours.* AN.

CFD 4220 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. FA, SP.

CFD 4250 Selected Issues in Child and Family Development (3) In-depth study of selected issues in child and family development. *May be repeated for a maximum of 9 semester hours.* Prerequisite: Junior standing or consent of the instructor. SP.

CFD 4260 Adulthood (3) This course is structured to introduce research approaches to the study of adult development through a cultural contextual exploration of the social, emotional, behavioral and educational processes. FA, SP.

CFD 4510 Early Childhood Approaches (3) The physical, motor, intellectual, social, and emotional development of the child. Development of an intelligent philosophy of adult-child relationships. OLO.

CFD 4520 Multicultural Study and Approaches with Families (3) This course is 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. FA(O), ONL.

CFD 4530 Transition to Marriage (3) This course is 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. SU(O), OLO.

CFD 4540 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. FA (E).

CFD 4550 Health & 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. FA (O).

CFD 4560 Divorce (3) This course is 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. SU(E), OLO.

CFD 4570 Death, Loss, and Grief Across the Lifespan (3) This course is intended 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. FA(E), ONL.

CFD 4580 Resilience in Children and Adolescents (3) This course 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. SP(O).

CFD 4590 Health Issues in Childhood and Adolescence (3) This course 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. SP (E)

CFD 4710 Internship (3) Provides experience for students in cooperating businesses, agencies and organizations. *May be repeated for a maximum of 12 semester hours.* Prerequisites: CFD 3710 and departmental consent. SU.

CFD 4745 Senior Seminar (3) Philosophy, current issues and trends in Child and Family relationships related to occupations. Focus on problem-solving styles leading to group and individual research problems. Prerequisites: senior standing, approval of faculty advisor. FA, SP. ONL.

CFD 4850 Family Policy and Advocacy (3) This course provides an overview of trends and issues in family policy and advocacy, emphasizing the impact of laws, policies, programs on individuals and family. FA, SP. ONL.

CHEM - Chemistry

CHEM 1005 Survival Skills for College Chemistry (2) Preparatory course to enhance success in General Chemistry by exploring concepts of chemistry and further developing algebraic and logic skills for solving applied chemical problems.

CHEM 1103 Introduction to the Sciences: Chemistry (3)

Introduction to the basic concepts of chemistry and scientific methodology, emphasizing the connections between chemistry, technology, and all things in a modern world. Not available to those with credit in CHEM 1104.

CHEM 1104 Introduction to the Sciences: Chemistry (4: 4 lecture, 0 lab) Introduction to the basic concepts of chemistry and scientific methodology, emphasizing the connections between chemistry, technology, and all things in a modern world. Laboratory included. Not available to those with credit in CHEM 1103. An additional fee is associated with this course.

CHEM 1131 General Chemistry I (5: 5 lecture, 0 lab) A first course in chemistry for those expecting to major or minor in chemistry, teach chemistry, or take pre-professional curricula. Includes laboratory experience. Prerequisite: a score of 21 on the mathematics section of the ACT, or 550 on the mathematics section of the SAT, or a passing score on a mathematics examination approved by the Department of Biochemistry, Chemistry and Physics or a grade of C or better in MATH 1111. An additional fee is associated with this course.

CHEM 1132 General Chemistry II (5: 5 lecture, 0 lab) A continuation of CHEM 1131. Includes laboratory experience. Prerequisite:

CHEM 1131 with a C grade or better. An additional fee is associated with this course.

CHEM 1603 Elementary Organic and Biochemistry (3) An introduction to organic chemistry and biochemistry for those who need no additional chemistry training. Laboratory not included. Not available for those with credit in CHEM 1604. Prerequisite: CHEM 1103 or CHEM 1104 or high school chemistry.

CHEM 1604 Elementary Organic and Biochemistry (4: 4 lecture, 0 lab) A brief introductory course in organic chemistry and fundamental concepts of biochemistry with emphasis on physiological, nutritional, and comparative aspects. Includes laboratory experience. May not be used for credit in chemistry major and minor programs on the Bachelor of Arts and Bachelor of Science degrees. Prerequisite: CHEM 1104. An additional fee is associated with this course.

CHEM 3111 Intermediate Inorganic Chemistry (4: 4 lecture, 0 lab) An intermediate level inorganic course with emphasis on main group and organometallic chemistry. Laboratory included. Prerequisites: CHEM 1132 and CHEM 3341. An additional fee is associated with this course.

CHEM 3212 Quantitative Analysis (3) Application of chemical principles to the separation and determination of elements and compounds. Laboratory practice in basic techniques of gravimetric, volumetric, and instrumental analysis. Prerequisite: CHEM 1132. An additional fee is associated with this course.

CHEM 3341 Organic Chemistry I (4: 4 lecture, 0 lab) A lecture and laboratory course in the chemistry of carbon compounds. Prerequisite: CHEM 1132 or concurrently. An additional fee is associated with this course.

CHEM 3342 Organic Chemistry II (4: 4 lecture, 0 lab) A continuation of CHEM 3341. Prerequisite: CHEM 3341. An additional fee is associated with this course.

CHEM 3421 Intermediate Biochemistry (3) Provides a foundation in biochemistry. Topics covered include amino acids, proteins, lipids, membranes, carbohydrates, enzyme kinetics and mechanisms, and carbohydrate metabolism. Prerequisite: CHEM 3341 with a grade of C or better.

CHEM 3920 Communication Skills in Chemistry (2) Techniques for searching the chemical literature, writing scientific reports and papers, and making effective oral presentations using audiovisual aids to effectively convey technical ideas and information. Prerequisite: a minimum of 17 semester hours of chemistry. Students are encouraged to enroll during their junior year.

CHEM 4010 Special Topics in Chemistry (1-4) Topics of contemporary significance not given in-depth coverage in regularly offered courses. *May be repeated as the topic is changed.* Prerequisite: consent of instructor.

CHEM 4111 Advanced Inorganic Chemistry (3) An advanced study of inorganic compounds with a focus on the transition elements and current issues. Prerequisite: CHEM 3111.

CHEM 4221 Environmental Chemistry (3) Chemical phenomena occurring in soil, atmospheric and aquatic environments; consideration of natural resources and energy. Prerequisite: CHEM 3341.

CHEM 4231 Instrumental Analysis (4: 4 lecture, 0 lab) A study, including applications, of instrumental methods of chemical analysis. Prerequisites:

GEOPHYS 2121, PHYS 2123, or GEOPHYS 1101. An additional fee is associated with this course.

CHEM 4313 Advanced Organic Chemistry (3) A lecture survey of general topics not covered in the CHEM 3341-2 sequence, and an extension to topics of current interest in organic chemistry. Prerequisite: CHEM 3342.

CHEM 4421 Advanced Biochemistry (3) Catabolic and anabolic metabolism of biomolecules, catalytic mechanisms and regulation of enzymes, nucleic acid structure and function, and computer resources. Prerequisites: CHEM 3342 and CHEM 3421 with a grade of C or better. An additional fee is associated with this course.

CHEM 4431 Biochemistry Laboratory (2) Introduction to biochemical literature, computer based resources, and experimental techniques used to purify and characterize biomolecules. Prerequisite: CHEM 3341 with a C grade or better. An additional fee is associated with this course.

CHEM 4531 Physical Chemistry: Thermodynamics and Kinetics (4: 4 lecture, 0 lab) Kinetic-molecular theory of gases, thermodynamics, chemical equilibria, and chemical kinetics. Laboratories are project-based and include calorimetry and spectroscopy. Laboratory included.

Prerequisites: CHEM 1132 and 8 additional hours of chemistry or physics. An additional fee is associated with this course.

CHEM 4532 Physical Chemistry: Quantum Mechanics and Spectroscopy (4: 4 lecture, 0 lab) Quantum mechanics, atomic and molecular structure, spectroscopy, electrical and magnetic properties of molecules. Laboratories include atomic and molecular spectroscopy, molecular modeling, and mathematical modeling. Laboratory included. Prerequisites: CHEM 1132 and 8 additional hours of chemistry or physics. An additional fee is associated with this course.

CHEM 4800 Forensic Chemistry and Toxicology (3) Introduction to the principles and applications of classical and instrumental methods of chemical analysis in forensic chemistry and forensic toxicology. Prerequisites: CHEM 1131, CHEM 1132, CHEM 3341 and CHEM 3342.

CHEM 4900 Chemical Research for Teachers* (1-2) Faculty supervised project terminating in a written and oral report. One semester assisting in or preparing materials for a chemistry laboratory course, prior to student teaching, also recommended. Prerequisites: CHEM 3212 and consent of instructor. *Not available for graduate credit.

CHEM 4910 Research in Chemistry (1-5) Individual work on a chemical research project under supervision of a staff member. Project will terminate in a written and oral presentation. *May be repeated for a maximum of 10 semester hours.* Prerequisite: Consent of instructor and department. An additional fee is associated with this course.

CHEM 4911 Special Problems in Chemistry (1-3) Individual work under supervision of a staff member. *May be repeated for a maximum of 3 semester hours.* Prerequisite: consent.

CHIN - Chinese

GECHIN 1701 Elementary Chinese I (3) Fundamental principles of pronunciation, vocabulary and idiomatic expressions of spoken Mandarin Chinese. Not open to native speakers or advanced students without permission of department chair.

GECHIN 1702 Elementary Chinese II (3) Continuation of GECHIN 1701. Not open to native speakers or advanced students without permission of department chair. Prerequisite: GECHIN 1701.

CHIN 2790 Special Topics in Chinese (1-3) Individual or group work by selected students in carefully chosen fields for intermediate level study. *May be repeated for a maximum of 6 semester hours.* Prerequisites: 6 semester hours of Chinese and consent of the department chair.

CHST - College of Health, Science, and Technology

CHST 1000 First Year Foundations For the College of Health, Science, and Technology (1) A one hour course designed to introduce students to the University of Central Missouri, the College of Health, Science and Technology, College Faculty and major.

CHST 2000 Orientation to CHST (0) Seminar course to orient and inform transfer students regarding College of Health, Science, and Technology (CHST) and UCM requirements, policies, and procedures.

CIS - Computer Information Systems

In addition to any course prerequisites listed for the courses below, the Harmon College of Business and Professional Studies also enforces a course leveling prerequisite. This means that freshmen (those who have earned 0-29.5 semester hours of college credit) may enroll in 1000 level courses only, sophomores (completed 30-59.5 semester hours) may enroll in 2000 or 1000 level courses, juniors (completed 60-89.5 semester hours) may enroll in 3000, 2000 or 1000 level courses and seniors (all students who have earned 90 semester hours) may enroll in 4000 level courses or below.

GE CIS 1600 Business Information Management (3) Students will learn how to acquire information based on the organizational needs, including how to convert data into information, how to perform queries, and how to store and present information in an appropriate format which facilitates informed decision making. Special emphasis will be placed on using business productivity tools such as Microsoft Office to achieve course objectives.

GE CIS 1612 Ethics in Information Technology (3) This course introduces students to the wide variety of issues and controversies related to cyber ethics. Emphasis will be placed on global and cross cultural issues and frameworks. Students will analyze how various actions related to Information Technology affect individuals, organizations, and society. Students will develop their critical thinking skills (by analyzing updated cases in real business scenarios and in "what would you do" scenarios), make decisions made on ethical principles, and develop their communication skills via oral presentations and written reports.

CIS 2605 Programming With Visual C# (3) Introduces fundamental concepts and implementations of programming using Visual C#. It focuses on Windows form applications covering aspects such as development of user interface, control structures, and data processing. The course also covers the object-oriented aspects of programming such as writing classes, and using objects. Hands-on learning is emphasized with a focus on the development of applications for business problems. An additional fee is associated with this course. An additional fee is associated with this course.

CIS 2615 Introduction to JAVA (3) Fundamental principles for the design and implementation of programs using JAVA programming language to develop systems and applications programs. Flexibility portability/platform independence, support for object-orientation and the availability of classes to handle complex programming tasks make JAVA an ideal choice for software development. The course adopts a hands-on approach and entails extensive programming. Prerequisite: CIS 2605. An additional fee is associated with this course.

CIS 2665 Principles of Data Communications and Local Area Networking (3) Overview of the fundamental concepts needed to develop and work with a data communications system. Hardware, software, network topology, network design and implementation is covered with a particular emphasis on the application of theory to solving business data communication needs. Prerequisite: GE CIS 1600.

CIS 3630 Management Information Systems (3) This course will focus on topics that help general managers make better Information System and/or Information Technology decisions. Often general managers must participate in the process of integrating IS/IT into the organization, and need knowledge of IS methods to interact with other IS/IT managers and employees effectively. Cases and actual hands-on applications are used to illustrate the importance of aligning end users and information resources with corporate resources and strategy. Ethical issues such as information privacy, access, and accuracy will be included. IBE section will evaluate and present a solution to a real life IT/IS problem, as determined by the IBE company plan. Prerequisites: ACCT 2101 and GE CIS 1600.

CIS 3650 Database Management Systems (3) Principles and fundamental concepts of relational database, including relational database design, implementation and management. Special emphasis is placed on data modeling, data normalization, database design and implementation with structured query language (SQL). Prerequisite: GE CIS 1600. An additional fee is associated with this course.

CIS 3660 Analysis and Design of Computer Information Systems (3) Fundamentals of object-oriented system analysis and design. Using Computer Aided Software Engineering (CASE) tools such as MS Project, IBM Rational RequisitePro and Software Modeler to model the business, capture the requirements, and designing, (and prototyping) a business

application. Prerequisite: CIS 2615 and CIS 3630. An additional fee is associated with this course.

CIS 3665 Data Communication Technologies (3) Current topics in data communications technology. Topics in wireless and wired technologies supporting personal area, local area and/or wide area networks will be considered. Prerequisite: CIS 2665.

CIS 3670 User Experience Design (3) Principles and guidelines for developing interface designs. Foundational theory, the design / development process and testing for web and application software interfaces will be addressed. Prerequisites: CIS 2615 and CIS 3660.

CIS 3685 Integrative Business Experience Practicum (3) Students will apply concepts from the concurrent courses to their own start-up business venture and to community service. Corequisites: special sections of MGT 3315, MKT 3405 and CIS 3630.

CIS 3695 Internship in Computer Information Systems (3-9) Opportunity for students to gain theoretical knowledge and practical application within a particular field of specialization. May not be taken last semester of senior year. Enrollment normally in 6 or 9 semester hours. May be repeated for a maximum of 18 semester hours. Prerequisites: 60 semester hours and overall GPA of 2.5 or above or permission of intern program Director.

CIS 4610 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. May be repeated for a maximum of 6 semester hours. Prerequisites: Consent of Instructor and Graduate status and Admission to the B.S.B.A. program. An additional fee is associated with this course.

CIS 4625 Information Security Management (3) The course will identify and prioritize threats to information assets, define security strategy, present architecture plan to respond intruders, describe legal implications, address privacy issues and present a disaster recovery plan after an incident. Prerequisite: CIS 2665.

CIS 4635 Seminar in Business Computer Applications (2-3) Business applications and programming techniques will be studied and prepared for presentation and discussion. Prerequisite: At least one programming course.

CIS 4640 Web Application Development (3) Survey of web technologies: HTML, CSS, JavaScript, MySQL and PHP. Student projects will require substantial integration of these technologies to address a business need. Prerequisite: CIS 2605.

CIS 4645 Network and System Security (3) Course provides an in-depth knowledge of securing enterprise networks. Topics include network traffic, intrusion signatures, security policy, VPN, ID, A&D firewalls, and risk analysis. For graduate credit students will be required to conduct research and submit findings. Prerequisite: CIS 2665.

CIS 4655 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. Prerequisite: CIS 3660 and Admission to the B.S.B.A. program or Graduate status. An additional fee is associated with this course.

CIS 4660 Applications Development Using JAVA (3) Develop object-oriented web-based Graphical User Interface (GUI) applications for business using JAVA as the programming language. Prerequisites: CIS 2615 with a C grade or better and CIS 2665 and CIS 3650 and Admission to the B.S.B.A. program or Graduate status. An additional fee is associated with this course.

CIS 4665 Data Communication and Distributed Data Processing (3) A comprehensive introduction to the field of digital data communications. It provides an understanding of terminology, topology, protocol, and available systems network architecture. Prerequisites: CIS 2665 and Admission to the B.S.B.A. program or Graduate status.

CIS 4670 Applications Development Using Visual C# (3) The course covers advanced concepts and techniques of programming in Visual C#. It focuses on desktop and web-based application development implementing more advanced techniques in Windows based applications, advanced notions of object-oriented programming and development of applications that access databases. The course adopts a hands-on approach with a focus on the development of applications for business problems. Prerequisites: CIS 2615, CIS 2665, and CIS 3650 and Admission to the B.S.B.A. program or Graduate status.

CIS 4675 Business Application Development for iOS and Android* (3) Major emphasis will be in developing business applications for deployment on smart phones, tablets 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. Testing will be conducted using iPads/Tablets as well as phone emulators. Topics in this course include mobile operating systems and development environments, user interaction design issues specific to mobile devices, data issues for mobile devices, and location-aware and other context-aware services. Prerequisites: CIS 2615, CIS 2665, CIS 3650 and CIS 3660. *Not available for graduate credit.

CIS 4680 Data Resource Management (3) Designing and administering data resources with consideration of transaction management, distributed systems, security, object-oriented databases, data mining, data warehousing and alternative data structures (XML). Prerequisites: CIS 2665 and CIS 3650 or admission to the MSIT or Information Systems concentration in the MBA and Admission to the B.S.B.A. program or Graduate status. An additional fee is associated with this course.

CIS 4685 Network Planning, Design and Security (3) Essential theoretical concepts behind network planning, design and security. Use of network planning tools to design networks, configure firewalls and other security measures. Prerequisite: CIS 3665 and Admission to the B.S.B.A. program.

CIS 4690 Systems Architecture and Development (3) Information architecture options for systems development with consideration of security. Project management. Major project incorporating software, hardware and networking components. To be taken last semester. Prerequisites: (CIS 2615, CIS 3650, and CIS 4685 or concurrently) or (CIS 3670, CIS 4680, and (CIS 4660 or CIS 4670)) and Admission to the B.S.B.A. program or Graduate status.

CJ - Criminal Justice

CJ 1000 Introduction to Criminal Justice (3) The history, nature and function of the criminal justice system in America. Special attention is given to the philosophical basis underlying this system and to the problems associated with crime control in a democratic society. At each stage of the process, major issues confronting the system are examined. FA, SP. ONL.

CJ 1605 Orientation to the Criminal Justice Major (1) Course gives student opportunity to become acquainted with academic tools used and techniques for success in major; to be taken immediately upon declaration of major. Prerequisite: CJ 1000 and a major in Criminal Justice.

CJ 2000 History of Corrections and Penal Institutions (3) Historical analysis of the development of corrections and penal institutions and the influence of social thought and philosophy on this development. Prerequisite: CJ 1000.

CJ 2101 Police Organization and Management (3) The principles and practices common to the effective management of American law enforcement agencies. Prerequisite: CJ 1000.

CJ 2300 Criminal Law and Procedure (3) An examination of the major legal principles concerning the definition of crimes and defenses and the legal parameters of criminal investigation and prosecution. Prerequisite: CJ 1000.

CJ 2405 International Policing (3) Overview of international policing operations includes an examination of organizational and administrative operations, duties of various police organizations, police relations with the public.

CJ 2700 Introduction to Juvenile Justice (3) An examination of the origins, philosophy and objectives of the juvenile justice system. Focus is on the operation, legal processes, current trends and roles of the various actors within the juvenile justice system. FA, SP.

CJ 3005 Introduction to Firearms Proficiency (3) Introduction to firearms and their implications within the field of criminal justice, with lab component to provide firsthand firearms experience. Prerequisite: Criminal Justice major or minor or consent of department. FA, SP.


CJ 3006 Corrections (3) An overview course in correctional theory and practice. Traces the historical development of corrections with emphasis on changing social standards and philosophies. Examines the various types of correctional institutions, their mission, physical structure, management, and problems. Also examines probation and parole, including theory, practice and major issues confronting these correctional alternatives. Prerequisite: CJ 1000. FA, SP. ONL.

CJ 3010 Policing a Democratic Society (3) An in-depth look at the relationship between law enforcement and American society. Focus is on police-community relations, the police sub-culture, and the need for police objectives to conform to constitutional procedures. Prerequisite: **CE**CJ 1000. FA, SP, ONL.

CJ 3020 Comparative Justice Systems (3) An examination of comparative crime rates among nations and the world's major models of justice systems.

CJ 3104 Institutional Operations (3) An examination of the procedures of correctional institutions and of the problems encountered in the classification, care and treatment of incarcerated offenders. Prerequisite: CJ 3006.

CJ 3310 Law of Corrections and Prisoners' Rights (3) An examination of federal and state laws and resultant judicial interpretation regarding the substantive and procedural protections applied in the correctional setting with regard to the rights of the confined. Prerequisite: CJ 2300. SP.

 **CJ 3398 International Human Rights and Criminal Justice (3)**

A presentation of the legal standards of international human rights for criminal justice and their comparison with and impact upon national criminal justice systems.

CJ 3400 Criminal Investigation (3) Principles involved in the investigation of crimes with particular attention given to its historical origins, the investigator, organization and management of the investigative function, and investigative methods; including crime scene processing, suspect identification and use of information sources. Consideration is also given to the investigation of specific crimes. FA.

CJ 3405 Homicide Investigation (3) Study of homicide investigation including tactics, procedures, problems, forensic techniques, and legal issues. Recommended that students complete CJ 3400 prior to taking this course. SP.

CJ 3450 Introduction to Computer Forensics (3) A survey of the practice of computer forensics in both theory and practice. Prerequisite: CJ 1000. SP.

CJ 3600 Introduction to Criminal Justice Research and Statistics (3) An introductory examination of the research methods and statistics with application most commonly utilized in criminological and criminal justice research. FA, SP, ONL.

CJ 3605 Junior Seminar in Criminal Justice (1) Junior Seminar is designed to prepare students for a successful transition into a criminal justice career or transition to graduate school. Prerequisite: CJ 1605.

CJ 4000 Special Projects in Criminal Justice Administration (1-3)

Individual or group study of problems in special areas of interest. *May be repeated.*

CJ 4006 Probation, Parole and Community Corrections (3) An examination of the roles of probation, parole and other community correctional methods as they relate to other elements of the criminal justice system. Prerequisite: CJ 3006. FA.

CJ 4010 Criminal Justice International Study (3) Credit granted for study in a department approved program or study tour in a foreign country. Prerequisite: consent.

CJ 4025 Comparative Corrections (3) This course provides a comparative overview of correctional practices in various countries.

CJ 4060 Victimology (3) An examination of the many facets of crime victimization including the victim, the offender, society-at-large, and the dynamics of the victim-offender relationship. Prerequisite: **CE**CJ 1000 or graduate status.

CJ 4070 Drug Policy (3) An examination of policies on the criminalization of drugs, ranging from their possession to their distribution, including issues of legalization and the societal and political impact of the war on drugs. Prerequisite: **CE**CJ 1000 or graduate status.

CJ 4080 Criminal Justice and the Media (3) An examination of media presentations of criminal justice issues and their impact on criminal justice policy and public opinion. Prerequisite: **CE**CJ 1000 or graduate status.

CJ 4090 Miscarriages of Justice (3) An examination of the nature of wrongful convictions and miscarriages of justice in the criminal justice system. Prerequisite: **CE**CJ 1000 or graduate status.

CJ 4101 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.

CJ 4300 Critique of Criminal Law and Criminal Procedure (3) Criminal procedure from arrest through trial. Preparation for and participation in mock trial. Prerequisite: CJ 2300.

CJ 4302 Evidence and Courtroom Procedure (3) Rules of evidence as they relate to the prosecution and defense of criminal cases. It is recommended that students complete CJ 2300.

CJ 4321 Civil Remedies in Criminal Justice (3) State and federal legal liabilities and remedies in criminal justice and policy implications. Prerequisite: CJ 2300.

CJ 4330 Criminal Justice and the Mental Health Systems (3) The relation of the criminal justice system and the mental health process; legal concepts regarding the mentally disabled. Prerequisite: **CE**CJ 1000. SP.

CJ 4352 International Criminal Law (3) Survey of international criminal law examining responsibilities of nation-state and individual, international cooperative efforts and tribunals, and various international crime and defenses, including international terrorism. SP, OLO.

CJ 4390 The Death Penalty (3) An examination of the jurisprudence, history and current issues about the death penalty. FA, OLO.

CJ 4403 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. SP.

CJ 4420 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. FA, SP, ONL.

CJ 4433 Crime Mapping (3) An examination of the theoretical and practical aspects of crime mapping and the temporal and spatial analysis of crime.

CJ 4444 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. OLO.

CJ 4488 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. Prerequisite: **CE** CJ 1000 or graduate status.

CJ 4503 Dynamics of Criminal Behavior* (3) An investigation of the perspectives of causation of norm-violating behavior. Emphasis will be placed on rule violating behaviors as defined by the criminal law and on potential policy implications for the criminal justice system. Prerequisite: **CE**CJ 1000. *Not available for graduate credit.

CJ 4601 Directed Studies* (1-6) Individual research and study in student's field of interest as approved and directed by major professors. *May be repeated for a maximum of 6 semesters hours.* Prerequisite: consent. *Not available for graduate credit.

CJ 4602 Internship in Criminal Justice (1-6) Practical experience in the operation of various components of the criminal justice system. *May be repeated for a maximum of 12 semester hours.* Prerequisite: consent.

CJ 4605 Senior Seminar in Criminal Justice* (1) Capstone course for a final opportunity to assess a student's general performance in the criminal justice major. Prerequisite: CJ 3605 and senior major in Criminal Justice. *Not available for graduate credit.

CJ 4607 Issues in International Justice (3) Seminar on current and developing issues in international justice. Prerequisite: consent of instructor.

CJ 4701 Juvenile Law & Policy (3) The jurisdiction of juvenile courts, role of law enforcement agents, judicial process, fact-finding hearings, dispositions, waivers, appeals, philosophy of the juvenile court with attention to the legal rights of children, and comparative analyses of juvenile codes.

CJ 4702 Juvenile Corrections (3) An analysis of the theories, concepts, practices and special problems of juvenile corrections, including a review of contemporary juvenile correctional systems and discussion of recent research concerning the juvenile institution and the various field services.

CJ 4703 International Juvenile Justice (3) An overview of international juvenile justice, through an examination of how the international society reacts to juvenile misbehavior and various juvenile justice models.

CJ 4920 Women and Crime (3) An exploration of the relationship between women and crime through three main components: (1) women and offending, (2) women and victimization, (3) responses to both. Prerequisite: **CE**CJ 1000 or graduate status.

CJ 4930 Race, Class, and Crime (3) An exploration of the intersection of race and class as it impacts crime and the response by the criminal justice system. Prerequisite: **CE**CJ 1000 or graduate status.

CMGT - Construction Management

CMGT 1300 Introduction to Construction Management (3: 2 lecture, 1 lab) General survey of the organization and functioning of the construction industry: legal, ethical, business, and management aspects. An additional fee is associated with this course.

CMGT 1301 Seminar in Construction Management (0.5) Forum to provide students an opportunity to learn about current events in the construction industry using guest speakers, open discussion and field trips. *Must be repeated 4 times*; One (1) credit must be generated after student has reached 60 semester hours of study.

CMGT 2020 Statics (3) An introduction to the basic concepts of strengths of materials, statics and dynamics as they relate to the design and analysis of materials, machines, and structures. Prerequisite: MATH 1112.

CMGT 2310 Construction Plans and Specifications (3) An introductory course to construction management which provides a survey of print reading and specification interpretation for light, civil, heavy highway and utility construction. An additional fee is associated with this course.

CMGT 2325 Project Cost Estimating (3) A quantitative take-off and survey of materials and productivity standards for industrial projects. Prerequisite: CMGT 2310 or CADD 1110. An additional fee is associated with this course.

CMGT 2340 Surveying and Construction Layout (3: 2 lecture; 1 lab) Theory and practice of plane, topographic, and construction surveying and layout including care and use of instruments, note taking and computations. Prerequisite: MATH 1112. An additional fee is associated with this course.

CMGT 3010 Applied Construction Practices (3: 2 lecture; 1 lab) Theory and practices of residential and light construction industry, methods, and materials. Hands-on laboratory activities with hand and power tool safety and effective use and jobsite safety support theory content. An additional fee is associated with this course.

CMGT 3020 Applied Strength of Materials (3) Selection and application of sizes, shapes, and materials required for the construction of a member for a machine or structure in order to resist an applied load in a safe and economical manner. Prerequisite: CMGT 2020.

CMGT 3320 Principles of Construction Management (3) Principles of construction contracting with related information on forms of business ownership, management, land development, labor relations, and project safety. An additional fee is associated with this course. Prerequisites: CMGT 1300 and CMGT 2310.

CMGT 3330 Building Codes and Code Administration (3) In-depth study of national, state, and local regulations applicable to specification and performance of building construction standards. Prerequisite: CMGT 2310, or consent of instructor. An additional fee is associated with this course.

CMGT 3350 Building Structures: Methods & Materials (3: 2 lecture, 1 lab) The types and processes of building structures including the materials and methods as applied to the structures: wood, steel, and concrete. Prerequisites: ENGT 2040, CMGT 2310, and CMGT 2340. An additional fee is associated with this course.

CMGT 3355 Construction Planning and Scheduling (3) Theory and use of construction and production scheduling to control the acquisition, movement, storage, and utilization of workers and/or material with emphasis given to the Critical Path Method (CPM). Computer programming background recommended. Prerequisite: CADD 1110 or CMGT 2310. An additional fee is associated with this course.

CMGT 4310 Construction Safety (3) Construction safety and health conditions on the job as they relate to workers, supervisors, inspectors, and the public. Prerequisites: CMGT 2310 or junior standing, or consent of instructor. An additional fee is associated with this course.

CMGT 4325 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. Prerequisites: CMGT 2310 and CMGT 2325. An additional fee is associated with this course.

CMGT 4330 Mechanical Systems for Buildings (3) Mechanical systems integrated with buildings and other equipment. Prerequisites: CMGT 2310 or junior standing. An additional fee is associated with this course.

CMGT 4340 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.

CMGT 4355 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. Prerequisites: CMGT 3355. An additional fee is associated with this course.

CMGT 4380 Heavy Construction: Methods and Materials (3) This course 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. Prerequisites: CMGT 2310 and MATH 1111. An additional fee is associated with this course.

CMGT 4400 Construction Operations* (3) A detailed study of the knowledge, processes and operational procedures involved in a commercial construction project. Prerequisites: CMGT 2310, CMGT 2325, CMGT 3320 and CMGT 3355 and senior standing. An additional fee is associated with this course. *Not available for graduate credit.

COMM - Communication

COMM 1000 Public Speaking (3) A study and practice of basic principles involved in discovering, arranging, delivering, and evaluating ideas in speech situations. FA, SP.

COMM 1050 Fundamentals of Oral Comm Competency (3) This course provides the student with the opportunity to understand and practice the lifelong process toward communication competency in three specific contexts: interpersonal, small group, and presentational settings. FA, SP.

COMM 1100 Introduction to Communication (1) This course introduces the student to communication and the way it impacts the social, economic and political lives of consumers and how they can have impact upon the media. FA, SP.

COMM 1200 Introduction to Mass Communication (3) Historical development of print, electronic and digital media; overview of industries that use media and how economics, regulation, society and ethics shape media content. FA, SP.

COMM 1275 Introduction to Media Technology (1) This course provides a basic understanding of the use of Macintosh computers, cameras, microphones, and the necessary cable and setup for a studio production, as well as remote productions.

COMM 1520 Reporting (3: 3 lecture, 0 lab) News, news sources, principles and techniques of news writing; duties and responsibilities of the reporter. Keyboarding ability necessary. Laboratory required. Prerequisite: completion of General Education Writing I and II. FA, SP.

COMM 1700 Dale Carnegie: Generation Next (2) This course will serve to enhance students' self confidence and provide them knowledge to be successful in their vocational pursuits.

COMM 2000 Media Literacy (3) Explores the relationships between media, its consumers, and producers. Integrates cultural, technological, and economic perspectives on mass media and visual communication. FA, SP, SU.

COMM 2100 Introduction to Communication Theory (3) The process by which communication principles are formulated and the principles themselves, with emphasis on both their theoretical and pragmatic dimensions. FA, SP, SU.

COMM 2200 Writing Across the Media (3) Introduction to the wide variety of writing for the media. FA, SP, SU.

COMM 2250 Media Aesthetics (3) This course focuses on the analysis and production of fundamental image and sound elements in visual and aural media. FA, SP

COMM 2275 Screenwriting (3) Principles, techniques, and formats of narrative screenwriting. FA.

COMM 2320 Foundations of Rhetorical Theory (3) Nature and functions of rhetoric across various communication situations. SP.


COMM 2330 Communication in Small Groups/Teams (3) Communication process as it relates to small group behavior, including the study of principles, methods, and forms of discussion used in small groups. FA, SP.


COMM 2340 Argumentation and Debate (3) Principles of analysis, evidence, reasoning, briefing, refutation, case construction, preparing and evaluating arguments. Practical experience with different types of debate. FA.

COMM 2380 Introduction to Organizational Communication (3)

Examines human communication within an organizational context. Contemporary approaches, the enduring processes, and emergent communication processes facing contemporary organizations are considered. FA.

COMM 2410 Multimedia Production (3) Principles and practices of designing multimedia for the media. The course covers both hardware and software appropriate to the discipline, including hands-on experience. FA, SP.

COMM 2411 Audio Production (3) An introduction to the 'science of sound' and operation of professional audio equipment and software. Prerequisite:  COMM 1200 or COMM 2200. FA, SP.

COMM 2412 Introduction to Digital Video (3) Basic theoretical understanding and practical application of digital video production techniques including: image composition, lighting, field and studio techniques, non-linear editing. Prerequisite:  COMM 1200 or COMM 2200. FA, SP, SU.

COMM 2415 Broadcast Copywriting (3) A survey course of different styles of broadcast writing and practical applications. FA, SP.

COMM 2450 Performance for the Media (3) The theory and practical application of vocal performance in support of traditional and new media. SP.

COMM 2520 Editing and Design (3: 3 lecture, 0 lab) Copyediting, rewriting, headline writing and page design. Prerequisite: COMM 1520. SP.

COMM 2530 Visual News Production (3) Effective use of photography to communicate in the digital media. Prerequisites:  COMM 1200, COMM 2200 and COMM 2410. FA.


COMM 2540 Sports Writing (3) Develop writing and reporting skills for sports. Prerequisite: COMM 2520 or COMM 2625. SP(O), SU.

COMM 2560 Introduction to Sports Broadcasting (3) This course provides students a foundation in sports television broadcasting. Students will gain experience in preproduction, producing, directing, announcing, graphics development and camera operation for live sporting events.

COMM 2620 Introduction to Public Relations (3) Public relations communications, principles, and techniques in historical perspective, including research and report writing. FA, SP, SU.

COMM 2625 Writing and Editing for Public Relations (3: 3 lecture, 0 lab) Introduces students to journalistic intent and writing while contextualizing those from a public relations perspective. Equips students to write and edit for journalistic purposes, as well as work with edits received from editors, while keeping in mind the purposes of public relations. One-hour non-credit lab required. FA, SP, S.

COMM 2700 Dale Carnegie: Effective Communication and Human Relations (3) Students will enhance communication and interpersonal relation skills, build self-confidence, and develop knowledge and practice in communicating effectively both in interpersonal and public settings. FA, SP.

 **COMM 3000 Film Appreciation (3)** Students will critically examine motion pictures as a communicative art. For mass communication majors or minors, this course is available only as a free elective or General Education requirement. FA, SP, SU.



COMM 3010 Interpersonal Communication (3) Principles of symbolic interaction and their implications for social, personal, and physiological adaptation across the human life span. Includes the patterns involved in establishing and maintaining effective relationships, managing conflict, and promoting tolerance for human diversity. FA, SP, SU.

COMM 3050 Cinematography (3) A practical introduction to the art and craft of motion picture creative image control, focusing on the essential principles, concepts, and tools of lighting and cinematography. FA.

COMM 3100 Communication Research Methods (3) Use of research techniques applied to the study of communication, with stress upon those factors affecting the mass media. FA, SP, SU.


COMM 3200 Digital Media Practicum (1-3) Laboratory experience in the mass media. Prerequisite: consent of instructor. FA, SP, SU.


COMM 3315 Improving Listening Abilities (3) Theories and principles for improving listening in a variety of communication situations. FA.

 **COMM 3320 Communication of Social Movements (3)** Focuses on how the communicative acts of social movements adapt to the constituencies they are attempting to change. Prerequisite:  COMM 1000. FA.

COMM 3325 Nonverbal Communication (2) An examination of selected areas of nonverbal communication; e.g., space and territory, physical behavior, appearance and dress; paralinguistics; and artifacts. FA.

COMM 3327 Improving Interviewing Skills (3) Theory and purposes of interviewing, emphasizing the principles and practice of interviewing skills. SP.

 **COMM 3340 Intercultural Communication (3)** Communication between and among cultures, including enculturation and relational implications of cross-cultural communication across a variety of contexts. SP.


COMM 3350 Professional Communication (3) Designed to increase awareness and understanding of speech theory and, by means of speaking exercises, to increase proficiency as a speaker in a variety of professional settings. Prerequisite:  COMM 1000. FA.

COMM 3390 Forensics (1) Participation in intercollegiate forensics-debate, oratory, extemporaneous speaking, discussion, and oral interpretation. *May be repeated for a maximum of 3 semester hours.* FA, SP.


COMM 3400 History of American Film (3) Development of the American film from the silent era to the present. FA.

COMM 3410 Advanced Radio Production (3) Techniques of digital-audio post-production and practical studio performance applications. Prerequisites:  COMM 1200, COMM 2200 and COMM 2411. SP.

COMM 3411 Video Production II (3) Intermediate course in digital video production/performance covering electronic field production, electronic news gathering, producing, directing, shooting and editing techniques. Prerequisite: COMM 2412. FA, SP.

COMM 3413 Advanced Multimedia Production (3) Advanced multimedia applications, including audio/video, animation, and incorporation of moving images, two-dimensional images and text to create interactive, multi-media environments. Prerequisites:  COMM 1200, COMM 2200 and COMM 2410. SP.


COMM 3425 Audio for Digital Cinema (3) This course will explore the technical and psychoacoustic aspects of mixing, recording, and mastering sound for digital cinema.

COMM 3450 Digital Video Editing (3) Techniques and procedures of digital video editing along with a study of theoretical approaches. Prerequisites:  COMM 1200, COMM 2200 and COMM 2412. FA, SP.

COMM 3500 Reporting Public Affairs (3) Techniques of reporting on city, county, state, and federal government and other governmental entities. Prerequisites: COMM 1520 or COMM 2520 or consent of instructor.

COMM 3505 Introduction to High School Video Production (1) The high school journalism teacher will learn about single camera operation, lighting, graphics, talent position, voice, body and performance. Prerequisite: admission to the journalism minor, Bachelor of Science in Education. AN.

COMM 3525 Feature Writing (3) Advanced course in writing special articles for newspapers and magazines. Prerequisites: COMM 1520 and COMM 2520. FA.

COMM 3535 Broadcast Journalism (3) Techniques of digital media journalism. Prerequisites:  COMM 1200, COMM 1520, COMM 2200 and COMM 2412. SP.

COMM 3560 Advanced Sports Broadcasting (3) This is an advanced course in sports broadcasting, with special emphasis on the development of talk shows, highlight shows, and sports newscasts. Prerequisites: COMM 2412 and 2560.

COMM 3620 Strategic Planning and Research for PR (3) Students will apply theoretical knowledge from entry-level course work to real world public relations applications. Helps students develop preliminary strategic planning skills. Prerequisites: COMM 2620 and COMM 2625 with a grade of C or better. FA, SP.

COMM 3625 Design and Layout for Publications (3: 3 lecture, 0 lab) Designed to equip students with the preliminary design, software and layout skills needed to produce magazines, house organs, and the like. One-hour non-credit lab required. FA, SP.

COMM 3640 Integrated Strategic Communication (3) Explores the value of integrating, for maximized strategic communication and promotional purposes, traditionally divided areas such as direct and Internet marketing, advertising, sales promotion, public relations and personal selling. FA, SP.

COMM 3650 Global Sports Public Relations (3) Students will learn the value of public relations in sports. They will learn to develop public

relations pieces, host events, perform effective media relations, and develop strategic communication plans. Prerequisite: COMM 2620. FA, SU.

COMM 3730 Conflict Management (3) An examination of communication factors which contribute to conflicts and an analysis of their resolution. SP(O).

COMM 4200 Special Topics in Mass Media (1-9) Departmentally selected topics of contemporary interest in mass media or specialized areas of the media; variable content. *May be repeated for a maximum of 9 semester hours (only 6 hours will apply to the major).* FA, SP.

COMM 4210 Mass Media Practicum II (1) Provides hands-on experience at the Muleskinner. Prerequisite: COMM 3200. FA, SP.

COMM 4235 Media Promotions (3) The theory and practical application of promotions in support of traditional and new media. FA.

COMM 4240 Media Management (3) Elements involved in the organization and successful operation of mass media enterprises; special emphasis upon interpersonal problems. FA.

COMM 4245 Media Economics and Sales (3) Business aspects of mass media in a competitive economy, including techniques for selling advertising space and time. SP.

COMM 4250 The Law and Digital Media (3) Application of principles of law to the mass communication media, media practice, advertising, and freedom of information, including libel, right of privacy, copyright. Prerequisite: junior standing, senior standing, or graduate status. FA, SP.

COMM 4260 Global Media Systems (3) An examination of the role of the media in global societies. FA.

COMM 4270 Family Communication (3) This course 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. SP.

COMM 4280 Mass Media and Society (3) Critical examination of the interaction between audiences and media. FA.

COMM 4285 Women and Minorities in Media (3) The study of women and minorities, their contributions and images, in a variety of media.

Prerequisite: COMM 1200 or COMM 3010 or consent of instructor.

COMM 4290 Special Projects in Mass Communication (1-3) Individual study/research in mass communication. *May be repeated for a maximum of 3 semester hours.* Prerequisite: written consent. FA, SP.

COMM 4295 Internship (1-6) A practical training experience for the application of mass media. *May be repeated for a maximum of 6 semester hours.* Prerequisites: completion of the preadmission requirements for internship placement and departmental approval. FA, SP, SU.

COMM 4300 Special Projects in Speech Communication (1-3) *May be repeated for a maximum of 6 semester hours.* Prerequisite: Consent. FA, SP.

COMM 4320 Social Influence (3) Focuses on the use of theories of persuasion to understand emotional and cognitive responses to messages used to impact interpersonal relationships, small groups, and/or society. SP.

COMM 4330 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. Prerequisite: COMM 3010. SP.

COMM 4335 Gender Communication (3) Gender as it influences communication processes in intrapersonal, interpersonal, group, public and mediated contexts. Prerequisite: COMM 3010 or consent of instructor. FA.

COMM 4340 Rhetorical Analysis and Society (3) An examination of the foundations and development of rhetorical theory with an emphasis on rhetorical criticism research. FA(E).

COMM 4370 Special Topics in Communication (1-3) The study of subjects not included in department's regular offering. *May be repeated for a maximum of 6 semester hours.* Prerequisite: Consent. FA, SP.

COMM 4390 Contemporary Communication (3) Public address as it functions in contemporary society in a variety of traditional and mass media settings. FA(O).

COMM 4410 Studio Production Techniques (3) Preparation and production of multi-camera programming in a studio environment. Prerequisite: COMM 2412.

COMM 4412 Narrative Production* (3) Advanced production of narrative programs in digital formats. Prerequisites: COMM 1200, COMM 2200 and COMM 2412. *Not available for graduate credit. SP.

COMM 4430 Media Programming (3) Analysis of programming

principles and practices, schedule development and audience behavior for radio and television stations. Prerequisites: COMM 1200. FA(E).

COMM 4435 Broadcast News Production (3) The theories, techniques, and skills of producing a full-length newscast including producing, writing, reporting, performance, ENG, and editing. SP.

COMM 4470 Corporate and Organizational Media Production (3) Production of instructional, training and informational videos for use within corporations and other organizations. Prerequisite: COMM 2412 or consent of instructor. SP.

COMM 4475 New Media Technologies (3) Technological developments and their uses (existing and potential) as information distribution systems. AN.

COMM 4490 Senior Capstone Seminar* (1) Preparation of a portfolio and re'sume' tape representing the student's best work; in addition, students will participate in assisting and tutoring students in lower-level courses in the major. Prerequisite: instructor's permission. *Not available for graduate credit. FA, SP.

COMM 4500 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. SU.

COMM 4510 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. Prerequisites: COMM 2625, COMM 3625. FA, SU.

COMM 4520 Opinion Writing (3) Principles and techniques of opinion writing. Prerequisite: COMM 1520. AN.

COMM 4522 Desktop Design for Teachers (3) Instructs students in the use of QuarkXpress for newspaper design and makeup. Prerequisite: COMM 2520.

COMM 4535 Advanced Digital Journalism (3) Problems and techniques of researching and gathering material for in-depth news reporting concerning the political, economic, and social aspects of a community. Prerequisites: COMM 1500, COMM 2520, COMM 3500. SP.

COMM 4550 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.

COMM 4555 Advanced News Editing (3) Provides advanced editing skills for news media. Emphasis on news judgment, language use, copy improvement, headline and outline writing, wire services, photo editing, page layout and design. Prerequisite: COMM 2520. AN.

COMM 4560 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. FA.

COMM 4565 Mule Productions (3) Students will gain experience in programming a television channel, as well as interviewing, video editing, preproduction, producing, directing, announcing, lighting, graphics development and camera operation. FA, SP.

COMM 4570 History of International Film (3) An introduction to international film history, focusing in particular on certain movements and themes made important for technological, aesthetic, social and economic reasons. SP.

COMM 4571 Methods of Teaching Journalism (3) Practical methods in the teaching of journalism. Prerequisite: admission to the journalism minor, Bachelor of Science in Education. SU.

COMM 4600 Special Topics in Public Relations* (3) Topics of contemporary interest in public relations, variable content. *May be repeated for a maximum of 9 semester hours (only 6 apply to the major).* Prerequisite: COMM 2620. *Not available for graduate credit. FA, SP.

COMM 4605 PR Internship* (1-3) A practical experience for the public relations student in securing employment and applying course-derived knowledge and skill. *May be repeated for a maximum of 6 semester hours.* Prerequisites: COMM 3620 and consent of instructor. *Not available for graduate credit. FA, SP, SU.

COMM 4610 PR Management and Industry Practices (3) Acquaints students, through discussion and application, with the basic concepts of "doing public relations business" as a means of readying them to enter the world of organizational operation in the marketplace of ideas and

competition. Prerequisite: COMM 3620. FA, SP.

COMM 4625 Innovative Public Relations / Special Topics in Public Relations* (1-9) Students gain real-world public relations agency experience in planning, executing, managing and evaluating campaigns; writing and designing under deadline, strategic planning, and working effectively with clients in a fast-paced environment. *May be repeated for a maximum of 9 semester hours.* Prerequisites: COMM 3620, competitive selection and consent of instructor. *Not available for graduate credit. FA, SP, SU.

COMM 4630 Electronic & Social Media for PR (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 both a theory and practical viewpoint. Students are exposed to methods for keeping up with the change. Prerequisite: COMM 3620. FA, SP.

COMM 4670 Strategic Crisis Communication (3) Students will be introduced to the process and experiences of thinking strategically when under crisis pressure. They will study past and current crises and CCPs. Prerequisite: COMM 2620 or consent of instructor. SP.

COMM 4675 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. Prerequisite: COMM 2620 or consent of instructor. FA.

COMM 4680 Advanced PR Writing (3) Overview of the publicity process including written, spoken, and/or videotaped messages using the mass media as a public relations tool. Prerequisites: COMM 2620, COMM 2625 and COMM 3620 with a grade of C or better. FA, SP.

COMM 4685 Strategic Planning through PR 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 application. Prerequisite: COMM 2620 and COMM 3620; WENGL 1020 and WENGL 1030 or WENGL 1080 with a grade of C or better; and Admission to the PR program. FA, SP.

COMM 4690 Campaigns (3) Capstone course and overview of the public relations campaign process with actual "hands on" application. Students will plan, organize and conduct an actual organizational campaign. Prerequisites: COMM 4680 and COMM 4685; and Admission to the PR program. FA, SP.

COMM 4700 Dale Carnegie: High Impact Presentations* (1) This course will enable students to plan and organize professional presentations; create and maintain a positive impression; and communicate ideas with clarity and force.

COMM 4780 Communication Leadership and Practice in Organization (3) A consideration of theories and principles of communication structures and systems within organizations. SP.

COMM 4781 Strategic Communication Audits (2) The assessment and measurement of human interaction within professional settings. FA.

COMM 4783 Communication Training (3) Communication as the coupling that holds organizations together and the agent of change that ensures health and growth. Students will assess needs and determine communication links; design, develop, and implement learning modules for human resource development; and design and interpret evaluation means to determine the effectiveness of the training. Prerequisite: Consent of instructor. SP.

COMM 4785 Internship in Speech Communication (1-6) The application of speech communication principles and theories in business, industry, and government settings. *May be repeated for a maximum of 6 semester hours.* Prerequisite: COMM 4780 with a grade of C or better. FA, SP.

COMM 4790 Senior Capstone* (1) Preparation and presentation during a Public Showcase event of evidence of the student's achievements within the Communication Studies program. *Not available for graduate credit. FA, SP.

CS - Computer Science

A student may enroll in a course offered by the Department of Mathematics and Computer Science only if a grade of C or better is earned in each of the course's prerequisites taken.

WICS 1000 Computers and Modern Society (3) The technical, social,

legal, ethical, and economic implications of computing and the controversies they raise from a computer scientist's perspective.

WICS 1010 Introduction to Computer Science (3) Introduction to the basic concepts of computer science. Topics include basic computer organization and systems, data representation, algorithms, Boolean logic, gates, system software, computer networks, information security, encryption, simulation, and modeling.

WICS 1030 Introduction to Computer Programming (3) Introduction to the basic concepts of computer programming. Topics include basic computer organization and systems, data representation, algorithms, selections, loops, functions, classes, objects, elementary programming, and applications.

CS 1100 Computer Programming I (3) An introduction to software design methodology using a modern high-level programming language. Topics include elementary programming, selections, loops, methods, arrays and fundamental algorithms. FA, SP.

CS 1110 Computer Programming II (3) A continuation of CS 1100. Topics include object-oriented software design methodologies such as classes, objects, strings and text I/O, inheritance, polymorphism, interfaces, GUI basics, graphics, and event-driven programming. Prerequisite: CS 1100. FA, SP.

CS 2200 Introduction to Computer Organization (3) Logical structure of digital computers, representation of information, addressing mechanisms, storage and peripheral hardware, and assembly programming. Prerequisite: CS 1110.

CS 2300 Data Structures (3) An introduction to data representations and information structures including a variety of non-numerical algorithms and their applications. Linear lists, arrays, trees, multilinked structures and dynamic storage allocation are investigated. Prerequisite: CS 1110.

CS 2400 Discrete Structures (3) Basic logic, sets and relations, proof techniques, induction and recursion, principles of counting, permutations and combinations, discrete probability, graphs and trees. Prerequisite: CS 1100.

CS 3100 Programming Languages (3) Discussing the design issues of programming language constructs, formal methods of describing the syntax and semantics, implementation techniques, lexical and syntax analysis. Prerequisite: CS 2300.

CS 3110 Applications Programming in C# and .NET (3) Applications development using the Microsoft .NET framework. Topics include hands-on experience in both server-side and client-side programming using a variety of Microsoft .NET technologies such as LINQ, WPF, WCF, ADO.NET and ASP.NET. Prerequisite: CS 1110. SP.

CS 3120 Web Programming (3) Introduction to client-side web programming: HTML5, cascading style sheets (CSS3), JavaScript, graphics, web browsers, and Ajax-enabled web applications. Prerequisite: CS 1110 or consent of instructor. FA.

CS 3200 Computer Architecture (3) Design alternatives in computer architecture including instruction set architectures, memory subsystem organization, interfacing concepts, interprocessor communication, datapath and control of a processor, and pipelining. Prerequisite: CS 2200 FA.

CS 3500 C and UNIX Environment (3) An introduction of C and UNIX system programming. Topics include all fundamentals of C and UNIX, with special emphasis on use of pointers, dynamic memory allocation, input and output, files and directories, and fundamental system programming. Prerequisite: CS 1110.

CS 3800 Applications Development with VB.NET (3) Concepts and applications in the field of Human Computer Interaction. Topics include human-computer interaction, GUI design and multimedia systems. Application projects using VB required. Prerequisite: CS 1100.

CS 3810 Introduction to Game Design (3) An introductory overview of the computer game development process, with an emphasis on game design, interactive storytelling, game play and interface design, history of computer games, review of selected games, analysis of rules of play and simple game prototype development. Prerequisite: CS 1110.

CS 4000 Special Problems in Computer Science (1-3) Individual reading and research on some topics not included in the regular offerings of the department. *May be repeated for a maximum of 6 semester hours.* Prerequisite: CS 2300.

CS 4020 Internship in Computer Science* (3-8) Opportunity for students to gain knowledge in areas of computer science, both theoretical and applied, that would not normally be included as part of the department's

curriculum. Internship contract must be completed prior to beginning work/learning experience. *May be repeated for a maximum of 16 semester hours.* A maximum of 8 semester hours may be applied to any one degree. Prerequisite: consent of department Internship Committee. *Not available for graduate credit.

CS 4100 SAS Programming (3) An introduction to SAS programming. Topics include importing and exporting raw data files, creating and modifying SAS data sets, the DATA step, SAS MACRO, SAS SQL and SAS REPORT. Prerequisite: CS 1100.

CS 4110 Mobile Applications Programming with Android (3) A course on design and programming of applications for Android mobile devices such as smart phones, pads, and tablets. Topics include: application lifecycle, MVC design, Android layouts, application design, memory usage and threads, audio and video, database management, location and maps. Prerequisite: CS 2300.

CS 4120 Advanced Applications Programming in Java (3) Advanced applications development using Java. Topics include generics, multithreading, networking, JavaBeans and event delegation model, Java database programming, servlets, JavaServer Pages, web services, remote method invocation, advanced GUI components such as JTable and JTree, and other advanced topics in Java. Prerequisite: CS 2300.

CS 4300 Algorithm Design and Analysis (3) Techniques needed to analyze algorithms. The application of these techniques to topics such as sorting, graph algorithms, fast Fourier transforms, dynamic programming, and NP-completeness. Prerequisite: CS 2300 and (MATH 1131 or MATH 1151).

CS 4420 System Simulation and Modeling (3) Model construction and simulation applied to problems taken from finance, statistics, sciences, communication networks and computer systems. Application projects using different simulation languages required. Prerequisites: CS 1100 and (MATH 1300 or MATH 3311).

CS 4500 Operating Systems (3) An introduction to operating systems. Topics include: processes, threads, CPU scheduling, process synchronization, deadlock, memory management, file systems, mass-storage structure, I/O systems, and case studies. Prerequisites: CS 2200 and CS 3500.

CS 4600 Database Theory and Applications (3) Topics include: E-R model, relational database design, normalization theory, SQL, application design and development, and database administration. Query optimization, security, integrity, and concurrent operation issues will be presented. Significant application-oriented projects will be required. Prerequisites: (CS 2400 or MATH 2410) and CS 2300.

CS 4610 Introduction to Cloud Computing (3) An introduction and broad view of cloud computing and its applications. Topics include Datacenter architectures, the MapReduce programming model, Hadoop, cloud algorithms, commercial cloud computing platforms such as Amazon EC2 and Google App Engine, and higher-level programming such as Hive and Pig. Prerequisite: CS 2300 or consent of instructor.

CS 4700 Artificial Intelligence (3) Topics include an introduction to artificial intelligence (AI) and AI languages such as LISP and PROLOG, research tools for AI problem solving, representation and search, knowledge representation, reasoning in changing and ambiguous situations and expert systems, machine learning. Prerequisites: (CS 2400 or MATH 2410) and CS 2300.

CS 4800 Computer Networking (3) General principles and concepts of computer networks with emphasis on system-level network technology, packet-switching and routing technologies, the client-server model, TCP/IP and socket programming. Prerequisite: CS 2200. FA.

CS 4810 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. Prerequisites: CS 2300 and (MATH 1131 or MATH 1151).

CS 4820 Computer Security (3) Theory and algorithms of computer security. Topics include security policies, cryptography, access control, secure programming, identity and authentication, information flow and information assurance techniques. Prerequisites: CS 2300.

CS 4830 Game Development (3) An introduction to higher level technical aspects of computer game development. Topics include game development framework, game programming, 2D animation, 3D cameras and effects, modeling, and basic artificial intelligence concepts.

Prerequisite: CS 2300.

CS 4910 Software Engineering (3) General principles of software development with emphasis on design of software architectures, translation of high-level specification systems, process modeling, software optimization, formal methods and ethical issues. Prerequisite: CS 3100.

CS 4920 Senior Project* (3) Semester-long senior capstone project in which teams design, plan, implement, test, and deploy a software development project. Selected topics in software development, group dynamics, project management, and ethics and professional responsibility. Includes a formal presentation to the Computer Science faculty. Prerequisite: CS 4910. *Not available for graduate credit.

CTE - Career and Technology Education

CTE 1000 Introduction to Career & Technical Education (2) Introduction to teaching Career & Technical Education. Philosophy and content of respective Career Education programs in Missouri, and respective state and national standards. FA.

CTE 1300 Introduction to Engineering Design (3) Use engineering-related, problem-solving skills in design development processes. Create, analyze, and communicate model product solutions using solid modeling computer design software. FA, SP.

CTE 1500 Gateway to Engineering (3) Introduction of Project Lead The Way's® "Gateway To Technology" MS program instructional units. Includes math, science, and technology integration for success in teaching pre-engineering skills. SP.

CTE 2000 Technology and Society (3) Explores the nature of technology, technological systems found in all cultures, the control of technology, and implications for change.

CTE 3060 Technical Writing (3) Technical writing basics, techniques, and applications. Uses a practical focus so students internalize the skills necessary to produce clear and effective documents and reports. Prerequisite: ENGL 1020 or ENGL 1080 with a grade of C or higher.

CTE 3110 Financial Management Education (3) Competencies related to income, taxes, money management, spending, use of credit, saving, and investing. Issues and strategies for responsible personal financial management across the life-span.

CTE 4000 Special Projects in Career and Technology Education (1-3) Investigation of contemporary problems and issues in technology and occupational education by selected individuals or groups. *May be repeated for a maximum of 6 semester hours.* Prerequisites: written contract/proposal with objectives and written department consent.

CTE 4022 Teaching/Administration Intern (1-3) Provides a mentored administration/teaching experience at the secondary/post-secondary level. Evaluation by on-site mentor and Coordinator of Technology and Occupational Education. *May be repeated for a maximum of 6 semester hours.* Prerequisites: CTE 4145, CTE 4160, and department chair consent.

CTE 4090 Special Problems in Career and Technology Education (1-3) Meets student needs for additional research and/or laboratory experience in the development of technical knowledge and skills in the areas of technology and occupational education. *May be repeated for a maximum of 6 semester hours.* Prerequisites: written contract/proposal with objectives and written department consent.

CTE 4110 Foundations of Career & Technology Education (3) Synthesizes Career and Technical Education's history, past and current issues, legislation, and philosophical foundations.

CTE 4115 Lab Management & Safety* (3) Students will learn to plan and equip engineering and technology labs based on curriculum and educational standards. Students learn to develop a lab safety program. Prerequisite: junior standing or consent of instructor. *Not available for graduate credit.

CTE 4125 Methods of Teaching Problem-based Learning* (3) The course will introduce students to problem-based learning pedagogical techniques, guided inquiry, as well as develop expertise in the delivery/presentation phase of instruction. Prerequisite: Admission to the Teacher Education Program. CTE 4145 should either have been completed or taken concurrently. *Not available for graduate credit.

CTE 4135 Professional Preparation in CTE* (2) Prepares students to enter the teaching profession in the public schools. Students will apply teaching strategies and reflection practices during the student teaching experience.

Prerequisites: Admission to the Teacher Education Program. Course should be taken during the professional education semester. *Not available for graduate credit.

CTE 4140 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.

CTE 4145 Curriculum Construction in Career and Technical Education (3) Assist new in-service and pre-service educators in selecting and organizing course content, including federal and state guidelines, for career and technology education courses and programs. Prerequisite: For BSE programs, Admission to Teacher Education Program or instructor approval.

CTE 4150 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.

CTE 4160 Methods of Teaching Career and Technical Education (3) Prerequisite: For BS degree, CTE 4145. For BSE degree, Admission to Teacher Education Program or instructor approval.

CTE 4165 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. Prerequisite: Instructor consent.

CTE 4180 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.

CTE 4242 Philosophy of Career and Technical Education (2) Past and current philosophy of career and technical education.

CTE 4280 Implementing CTE Programs & Lab Management (3) This course addresses information needed to design, implement, and maintain vocational career and technology education programs, and lab management and resources. Prerequisite: Acceptance to the Teacher Education program or approved alternative pathway to certification.

CTE 4501 Managing Classroom Technologies (2) Students will work with current digital media management tools that enhance classroom instruction. Emphasizes resources to manage a multimedia-rich educational environment.

DANC - Dance

DANC 1110 Modern Dance I (1) Introduction and practice of basic modern dance concepts and techniques with an emphasis on creative movement dynamics, rhythmic and spatial aspects, and alignment.

DANC 1120 Ballet Dance I (1) Introduction and practice of basic ballet dance concepts and fundamental techniques with an emphasis on alignment and classical ballet vocabulary and positions.

DANC 1130 Tap Dance I (1) Introduction and practice of basic tap dance concepts and techniques with an emphasis on stylized steps and terminology coordinated with the rhythmic structure of tap dance.

DANC 1140 Jazz Dance I (1) Introduction and practice of basic jazz dance concepts and techniques with an emphasis on movement dynamics, isolation, syncopation, and alignment.

DANC 1270 Ballroom Dance I (1) Introduction and practice of basic dance steps, rhythms, fundamentals and partnering techniques for 4-6 smooth and Latin ballroom dance styles.

DANC 2100 Dance Appreciation (3) An introductory survey of dance as a performing art which will prepare the student for greater enjoyment and appreciation of various dance forms.

DANC 3110 Modern Dance II (1) Modern II continues to explore the basic elements of modern dance technique and new ways of moving while emphasizing strength, endurance, balance and extended combinations. Prerequisites: Designed for students with at least one year of formal dance training. DANC 1110 or permission of the instructor.

DANC 3120 Ballet Dance II (1) Ballet II continues development of the basic fundamentals of classical ballet technique and vocabulary with an emphasis on alignment, sequence development, and performance quality. Prerequisites: Designed for students with at least one year of formal ballet training. DANC 1120 or permission of the instructor.

DANC 3130 Tap Dance II (1) Continues building basic and intermediate

tap dance concepts and techniques with an emphasis on stylized steps and terminology coordinated with the rhythmic structure of tap dance.

Prerequisites: Designed for students with at least one year of formal tap training. DANC 1130 or permission of the instructor.

DANC 3140 Jazz Dance II (1) This course continues to explore the basic elements and fundamentals of jazz dance technique and vocabulary while emphasizing movement dynamics, isolation, syncopation, alignment and artistic expression. Prerequisites: Designed for students with at least one year of formal dance training. DANC 1140 or permission of the instructor.

DANC 3210 Musical Theatre Dance (3) Introduction and practice of basic musical theatre dance concepts and techniques with an emphasis on gaining performance skills in different styles of musical theatre dance choreography.

DANC 3270 Ballroom Dance I (1) Introduction and practice of basic dance steps, rhythms, fundamentals and partnering techniques for 4-6 smooth and Latin ballroom dance styles. Prerequisite: DANC 1270.

DANC 4210 Choreography I* (3) Introduction to the craft and creative process of choreography through the means of exploration, improvisational movement, and developing basic movement themes and solo/duet works. *Not available for graduate credit.

D&N - Dietetics and Nutrition

D&N 1300 Introduction to Dietetics (1) Overview dietetics and nutrition including history, current trends and career opportunities.

D&N 2310 Early Childhood Nutrition and Health (2) Application of principles of nutrition, significance of food habits, including the influences of family living, cultural patterns, and commercialization in relation to the health of young children.

D&N 3340 Nutrition (3) Digestive process and fundamental principles of nutrition and their application to the feeding of individuals. Prerequisite: Grade of C or better in CHEM 1104 or CHEM 1131. FA, SP.

D&N 3350 Community Nutrition (3) Public health nutrition and nutrition care delivery in community programs. Prerequisite: D&N 3340 with a grade of C or better.

D&N 3360 Entrepreneurship for Dietetics Professionals (3) Identifies and develops dietetic entrepreneurial opportunities in a rapidly changing employment environment. Prerequisites: FOOD 3333 and D&N 3340.

D&N 4340 Advanced Nutrition (3) An in-depth study of human nutrition and the evaluation of nutritional status. Prerequisites: Grade of C or better in BIOL 3401, BIOL 3402, D&N 3340 and CHEM 1604.

D&N 4341 Child Nutrition (2) Nutritive requirements of mothers during pregnancy and lactation and of children during early childhood. Bases of determining reliability of nutrition information. Prerequisite: D&N 3340.

D&N 4342 Medical Nutrition I (3) Role of nutrition in the prevention and dietary treatment of disease. Prerequisites: Grade of C or better in BIOL 3401, BIOL 3402, D&N 3340 and CHEM 1604. FA.

D&N 4343 Medical Nutrition II (3) A case study oriented approach to nutritional medicine with an in-depth emphasis on pathophysiology and the nutritional care plan in the prevention and treatment of disease. Prerequisite: D&N 4342 with a grade of C or better. SP.

D&N 4344 Nutrition Education and Counseling* (2) This course is designed to assist in the development of skills related to nutrition counseling and communication, as well as enhance group nutrition education experience and skills. Prerequisite: D&N 4342 with a grade of C or better. *Not available for graduate credit.

D&N 4345 Senior Dietetics Seminar* (3) Philosophy and current issues and trends in dietetics. Group and individual problems which will lead to investigation of individual research problem. Prerequisite: senior standing. *Not available for graduate credit. FA.

D&N 4346 Dietary Supplements (3) Course focuses on federal regulation of the natural health products industry, quality control of supplements, and legal and ethical considerations in recommending dietary supplements and complementary therapies. Prerequisites: D&N 4340 or HED 4300

D&N 4350 Special Problems in Foods and Nutrition (2-3) An in-depth study of human nutrition; some foods emphasis. Group and/or individual problems including reports, discussion, bibliographies, research, and experiments. *May be repeated for a maximum of 6 semester hours.* Prerequisite: senior standing.

D&N 4351 Geriatric Nutrition (2) Dietary needs and feeding of the elderly. Prerequisite: D&N 3340.

DRED - Driver Education

DRED 2010 Introduction to Safety Education (3) Provides a background in safety that will give insight to the possible accident situations present in various school situations.

DRED 2020 Driver Task Analysis (3) Curriculum content overview for driver and traffic safety education in secondary schools; classroom instruction and laboratory experience; driving skills and abilities of future teachers are evaluated. Prerequisite: DRED 2010.

DRED 2030 Developing Vehicle Operation Skills and Competencies (3) A methods and materials course for driver education in the secondary schools. Techniques of teaching beginning drivers in both classroom and laboratory settings. Practicum arranged as a portion of the course. Prerequisite: DRED 2020. SU.

DRED 2040 Developing Classroom Knowledge (3) Operation, maintenance, and techniques of teaching with driving simulators and multiple-car driving ranges. Practicum arranged as a portion of the course. Prerequisite: DRED 2030. SU.

EASC - Earth Science

 **EASC 1004 Introduction to Geology (4: 3 lecture, 1 lab)**

Fundamental principles of geology. Minerals, rocks, plate tectonics, volcanoes, earthquakes, fossils & evolution of life on Earth, landscape formation by streams, glaciers, and underground water. Laboratory included. An additional fee is associated with this course.

EASC 1114 Weather and Climate (4: 3 lecture, 1 lab) Principles and theories of weather, climate, and other atmospheric phenomena. Included is the study of energy exchanges, winds, cloud types, precipitation forms, severe weather, generation of hurricanes, tornadoes, and mid-latitude storms, pollution, climate change and the cultural implications of weather and climate. Due to the quantitative nature of the course, college level mathematics is recommended.

EASC 2100 Engineering Geology (4: 3 lecture, 1 lab) The study of physical geology as applied in engineering practice. Emphasis is on surficial geology and soils, employing both field and laboratory investigation methods. Topics include hydrogeology, waste disposal, slope stability, engineering properties of soil and rock, mapping, and site characterization. Prerequisite: EASC 1004 or consent of instructor. An additional fee is associated with this course.

EASC 2200 Historical Geology (4: 3 lecture, 1 lab) The history of the Earth will be studied in light of shifting continents, advances and retreats of seas, periods of mountain building and the evolution of life through the great expanse of geologic time. Laboratory will include local and regional field trips. Prerequisite: EASC 1004. An additional fee is associated with this course.

EASC 3010 Environmental Geology (3) The relationships between humans and their geological surroundings with an emphasis on environmental problems. The main topics are mineral and energy resources, population, earthquake and volcanic hazards, medical problems related to the environment, floods, and coastal processes.

EASC 3110 Structural Geology (4: 3 lecture, 1 lab) Structures of the Earth on maps, cross-sections, and aerial photographs and in field exercises. Folding and faulting are emphasized. Also discussed are plate tectonic mechanisms that are responsible for Earth structures. Prerequisite: EASC 1004. An additional fee is associated with this course.

EASC 3111 Geomorphology (3) The processes which shape the Earth's surface and form surficial deposits. The interaction of people with their environment is emphasized. Topics include soil formation, surface water, glaciers, climate, streams, ground water, and environmental issues. Prerequisite: EASC 1004 or EASC 3010.

EASC 3112 Astronomy (3) The fundamental principles and theories pertaining to planetary astronomy, stellar evolution, and origin of the galaxies. Observational techniques are discussed and nighttime viewing sessions are held using departmental telescopes.

EASC 3114 Meteorology (3) Principles and theories of weather, climate, and other atmospheric phenomena. Included is the study of energy exchanges, winds, cloud types, precipitation forms, severe weather, and the generation and movement of tornadoes and other cyclonic storms.

EASC 3115 Oceanography (3) Introduction to ocean science intended for students with a limited science background. Relationship of continents and ocean basins, sea floor spreading, waves, tides, currents, circulation

of the atmosphere and ocean, marine biology and geology, and global environmental implications.

EASC 3213 Paleoclimatology (3) Glacier formation and movement, glacial erosion and deposition, changes in sea level and in river channels, climate change and the causes of the ice ages, and changes in northern hemisphere animal and plant populations during the past two million years. Prerequisite: EASC 1004 or GEORG 2100 or GBIOL 1003 or consent of instructor.

EASC 3300 Earthquakes and Volcanoes (3) Investigation of the main processes and products of earthquakes and volcanoes within the framework of plate tectonics. Includes quantitative analyses and case studies of major earthquake and volcanic events. College level mathematics and composition are recommended.

EASC 3320 Mineralogy (4: 3 lecture, 1 lab) An introduction to crystallography and a systematic study of the mineral groups including the native elements, sulfides, sulfates, oxides, halides, carbonates, and silicates. Laboratory work stresses identification by physical and chemical properties. Prerequisite: EASC 1004. An additional fee is associated with this course.

EASC 3400 Groundwater Geology (3) Principles of how fluids move within the crust of the Earth. Groundwater concepts are reviewed and applied to modern day resource and conservation problems. Prerequisites: EASC 1004, and MATH (1111 or 1150 or 1151) or consent of instructor.

EASC 3501 Invertebrate Paleontology (4: 3 lecture, 1 lab) Principles and methods used in collecting, identifying, and utilizing fossils to determine the distribution and environment of ancient lands and seas. Further, fossils will be studied as tools of geologic time determination and understanding evolution of life on Earth. Laboratory will include local and regional field trips. Prerequisite: EASC 2200 or consent of instructor. An additional fee is associated with this course.

EASC 4010 Special Problems in Geology (1-3) Individual work under supervision of a staff member. Problems may be undertaken in any area of geology. *May be repeated for a maximum of 9 semester hours.* Prerequisite: adequate preparation in that field and consent.

EASC 4300 Earth Resources (4: 3 lecture, 1 lab) 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 also examined.

EASC 4320 Geochemistry (3) Application of chemical principles to the study of earth and environmental systems. Topics include origin and distribution of elements, stable and radiogenic isotopes, thermodynamics, aqueous and environmental geochemistry, and geochemical cycles. Prerequisites: EASC 1004 and CHEM 1131 or instructor consent.

EASC 4325 Petrology (4: 3 lecture, 1 lab) Igneous and metamorphic rocks. Includes consideration of processes of formation and identification of rock types. Prerequisite: EASC 3320. An additional fee is associated with this course.

EASC 4420 Sedimentary Petrology and Stratigraphy (5: 3 lecture, 2 lab) Description and classification of sedimentary rocks, sedimentology, and the principles of stratigraphy. Exercises include hand sample and petrographic analyses, subsurface stratigraphy, and measuring stratigraphic sections. Field work included. Prerequisite: EASC 2200 or instructor consent. An additional fee is associated with this course.

EASC 4950 Laboratory Intern (1)* Under direct supervision, students will assist in the preparation, supervision, and assessment (with the exception of grading) of laboratory activities in the Department of Biology and Earth Science. *May be repeated for a maximum of 2 semester hours credit.*

*Not available for graduate credit.

ECEL - Elementary and Early Childhood Education

ECEL 1310 Physics for Teachers (3) A demonstration, laboratory, lecture and discussion course in physics designed for elementary and nonscience secondary teachers. Credit earned in this course may not be substituted for any courses required for a secondary major or minor in the sciences.

ECEL 1320 Biology for Teachers (3) A demonstration, laboratory, lecture, and discussion course in biology designed for elementary and nonscience secondary teachers. Credit earned in this course may not be substituted for

any courses required for a secondary major or minor in the sciences.

ECEEL 2110 Diversity and Social Justice (3) Provides an analysis of social justice with an emphasis on cultural interaction to better understand human diversity issues, diverse perspectives, one another, and one's own sense of self.

ECEEL 2310 Computer/Technology in Education (2) Provides pre-service teachers with basic knowledge and skill in microcomputer and instructional media operation for instructional purposes in schools. Meets the proficiency requirement for microcomputer/audiovisual equipment that is a prerequisite for student teaching.

ECEEL 2830 Early Childhood Principles and Observation (3) Provides students a critical understanding concerning the application of educational principles in order to make professional decisions about young children (birth-8). Requires a minimum of 30 hours of practical experience. Prerequisite: CFD 1220.

ECEEL 3100 Early Childhood Assessment and Screening (2) Part of the integrated content methods block for early childhood. Clinical Program Block I for early childhood education must be taken with no exceptions or substitutions. An integrative approach to understanding the development of and teaching the early childhood learner (preK-K) which includes a focus on the interdependence of language and literacy development; methods and concepts in the content areas of communication arts, mathematics, social studies/economics, and science education; and early childhood assessment and screening. The teacher candidate will learn methods of assessment, observation, enrichment and intervention while working in a preschool or kindergarten environment. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, and current and clear background check.

ECEEL 3150 Early Childhood Practicum (2) Part of the integrated content methods block for early childhood. Clinical Program Block I for early childhood education must be taken with no exceptions or substitutions. An integrative approach to understanding the development of and teaching the early childhood learner (preK-K) which includes a focus on the interdependence of language and literacy development; methods and concepts in the content areas of communication arts, mathematics, social studies/economics, and science education; and early childhood assessment and screening. The teacher candidate will learn methods of assessment, observation, enrichment and intervention while working in a preschool or kindergarten environment. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, current and clear background check.

ECEEL 3151 Young Learner Practicum (Grades 1-3) (2) An integrative approach to teaching the young learner (grades 1-3) which includes methods and concepts in the content areas of communication arts, mathematics, social studies/economics, and science education. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, and current and clear background check.

ECEEL 3152 Intermediate Learner Practicum (Grades 4-6) (2) An integrative approach to teaching the intermediate learner (grades 4-6) which includes methods and concepts in the content areas of communication arts, mathematics, social studies/economics, and science education. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, and current and clear background check.

ECEEL 3220 The Teaching of Language Arts (3) An integrative approach to teaching the communication arts of reading, writing, listening, and speaking in the elementary curriculum. Prerequisites: cumulative GPA of 2.5; EDFL 2100 and FLDX 2150 and EEDFL 2240.

ECEEL 3260 Practicum in Child Development (1) Student observation and participation with preschool children. Students work with 2, 3 and 4-year old children. Prerequisite: CFD 1220. Corequisite: CFD 3850 if Early Childhood or Childhood Development major. An additional fee is associated with this course.

ECEEL 3300 Literacy and Communication Arts for Early Childhood (1) An integrative approach to understanding the development of and teaching the early childhood learner (preK-K) which includes a focus on the interdependence of language and literacy development; methods and concepts in the content areas of communication arts, mathematics, social studies/economics, and science education; and early childhood assessment and screening. The teacher candidate will learn methods of assessment, observation, enrichment and intervention while working in a preschool or kindergarten environment. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, and current and clear background check. Corequisites: ECEEL 3100, ECEEL 3150, ECEEL 3400, ECEEL 3500, ECEEL 3600 and ECEEL 3800.

ECEEL 3310 Literacy and Communication Arts for the Young Learner (2) An integrative approach to teaching the young learner (grades 1-3) which includes methods and concepts in the content areas of communication arts, mathematics, social studies/economics, and science education. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, current and clear background check. Corequisites: ECE 3151, ECEEL 3510, ECEEL 3610 and MATH 3810.

ECEEL 3320 Literacy and Communication Arts for the Intermediate Learner (2) An integrative approach to teaching the intermediate learner (grades 4-6) which includes methods and concepts in the content areas of communication arts, mathematics, social studies/economics, and science education. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, and current and clear background check. Corequisites: ECEEL 3152, ECEEL 3520, ECEEL 3620 and MATH 3820.

ECEEL 3400 Language Development (2) An integrative approach to understanding the development of and teaching the early childhood learner (preK-K) which includes a focus on the interdependence of language and literacy development; methods and concepts in the content areas of communication arts, mathematics, social studies/economics, and science education; and early childhood assessment and screening. The teacher candidate will learn methods of assessment, observation, enrichment and intervention while working in a preschool or kindergarten environment. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, and current and clear background check. Corequisites: ECEEL 3100, ECEEL 3150, ECEEL 3300, ECEEL 3500, ECEEL 3600 and ECEEL 3800.

ECEEL 3420 Teaching Social Studies and Economics in Elementary and Middle Schools (3) Social studies and economics education competencies are developed. These are related to teaching methods; content, skills, and attitudes; and evaluative devices and assessments. Prerequisites: cumulative GPA of 2.5, EDFL 2100 and FLDX 2150 and EEDFL 2240.

ECEEL 3468 Community, School and Family Connections (3) Focuses on the interactions among community, school and family systems relative to existing and emerging paradigms.

ECEEL 3500 Social Studies for Early Childhood (1) An integrative approach to understanding the development of and teaching the early childhood learner (preK-K) which includes a focus on the interdependence of language and literacy development; methods and concepts in the content areas of communication arts, mathematics, social studies/

economics, and science education; and early childhood assessment and screening. The teacher candidate will learn methods of assessment, observation, enrichment and intervention while working in a preschool or kindergarten environment. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, and current and clear background check. Corequisites: ECEL 3100, ECEL 3150, ECEL 3300, ECEL 3400, ECEL 3600 and ECEL 3800.

ECEL 3510 Social Studies and Economics for the Young Learner (1)

An integrative approach to teaching the young learner (grades 1-3) which includes methods and concepts in the content areas of communication arts, mathematics, social studies/economics, and science education. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, and current and clear background check. Corequisites: ECEL 3151, ECEL 3310, ECEL 3610 and MATH 3810.

ECEL 3520 Social Studies and Economics for the Intermediate Learner (1)

An integrative approach to teaching the intermediate learner (grades 4-6) which includes methods and concepts in the content areas of communication arts, mathematics, social studies/economics, and science education. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, and current and clear background check. Corequisites: ECEL 3152, ECEL 3320, ECEL 3620 and MATH 3820.

ECEL 3600 Science for Early Childhood (1)

An integrative approach to understanding the development of and teaching the early childhood learner (preK-K) which includes a focus on the interdependence of language and literacy development; methods and concepts in the content areas of communication arts, mathematics, social studies/economics, and science education; and early childhood assessment and screening. The teacher candidate will learn methods of assessment, observation, enrichment and intervention while working in a preschool or kindergarten environment. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, and current and clear background check. Corequisites: ECEL 3100, ECEL 3150, ECEL 3300, ECEL 3400, ECEL 3500 and ECEL 3800.

ECEL 3610 Science for the Young Learner (1)

An integrative approach to teaching the young learner (grades 1-3) which includes methods and concepts in the content areas of communication arts, mathematics, social studies/economics, and science education. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, and current and clear background check. Corequisites: ECEL 3151, ECEL 3310, ECEL 3510 and MATH 3810.

ECEL 3620 Science for the Intermediate Learner (1)

An integrative approach to teaching the intermediate learner (grades 4-6) which includes methods and concepts in the content areas of communication arts, mathematics, social studies/economics, and science education. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, and current and clear background check. Corequisites: ECEL 3152, ECEL 3320, ECEL 3520 and MATH 3820.

ECEL 3800 Math for Early Childhood (1)

to understanding the development of and teaching the early childhood learner (preK-K) which includes a focus on the interdependence of language and literacy development; methods and concepts in the content areas of communication arts, mathematics, social studies/economics, and science education; and early childhood assessment and screening. The teacher candidate will learn methods of assessment, observation, enrichment and intervention while working in a preschool or kindergarten environment. Competencies related to teaching strategies, content, technology, differentiation, skills, attitudes, evaluative devices, and assessments will be modeled and practiced in the co-requisite practicum experience. Prerequisites: application to Clinical Pathway, completion of Clinical Candidate Expectations Contract, 2.75 cumulative GPA, 3.0 major GPA, and current and clear background check. Corequisites: ECEL 3100, ECEL 3150, ECEL 3300, ECEL 3400, ECEL 3500 and ECEL 3600.

ECEL 3850 Development and Learning Through Play (3)

Provides theoretical and empirical perspectives connecting play to young children's learning and development. Develops knowledge and skills to implement play-based curriculum in diverse settings. Prerequisites: CFD 1220, ECEL 2830 for students seeking certification in early childhood education. Corequisite: ECEL 3260.

ECEL 4000 Special Projects in Education (1-6) Individual or group study of problems in special areas of interest. *May be repeated for a maximum of 6 semester hours.*

ECEL 4120 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. Clinical Program Senior Block I must be taken without exceptions or substitutions; 280 field hours across 3 different grade levels in a designated clinical site are required as part of Senior 1. Prerequisites: 2.75 cumulative GPA, 3.0 major GPA, admission to Teacher Education, Junior block(s). Corequisites: ECEL 4140, ECEL 4400 and MATH 3800.

ECEL 4140 Communication Arts Integration (5) 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. Clinical Program Senior Block I must be taken without exceptions or substitutions; 280 field hours across 3 different grade levels in a designated clinical site are required as part of Senior 1. Prerequisites: 2.75 cumulative GPA, 3.0 major GPA, admission to Teacher Education, Junior block(s). Corequisites: ECEL 4120, ECEL 4400 and MATH 3800.

ECEL 4150 Student Teaching Professional Seminar* (2) Culminating experience synthesizing theory and practice taken with student teaching for early childhood, elementary, and double majors in elementary education. Prerequisite: Admission to Teacher Education Program; cumulative GPA of 2.5; ECEL 4400. Must be taken as part of student teaching placement with FLDX 4495 or FLDX 4496 (See description of Professional Education Semester.) *Not available for graduate credit.

ECEL 4314 Integration of Technology in Instruction (3) Establishes and advances the use of computer technology for both teacher productivity and instructional integration into P-12 classrooms. Prerequisite: cumulative GPA of 2.5.

ECEL 4350 Elementary Science Teaching Strategies (3) Science concepts commonly developed in the elementary grades, with special emphasis on objective materials, field trips, experiments, laboratory and other activities. Enrollment is limited to students preparing to become elementary teachers. Prerequisites: Admission to Teacher Education Program; completion of a physical science and biological science, each with labs, (ECEL 1310 and ~~BIOL~~ 1004) or (ECEL 1320 and ~~WEASC~~ 1004 or ~~ICHEM~~ 1104 or ~~EPHYS~~ 1104).

ECEL 4400 Classroom Management and Interactions* (3) Helps pre-service teachers advance their knowledge and skills using general, age appropriate classroom management techniques, integrating them with developmentally appropriate teaching strategies. Prerequisites: Admission to Teacher Education Program and should be taken the semester just prior to student teaching. *Not available for graduate credit.

ECEL 4830 Early Childhood Curriculum (3) Provides students with the theories and principles of curriculum development, knowledge, and skills of implementing integrated (developmentally and culturally appropriate) curriculum in early childhood (birth-8). Prerequisites: Admission to Teacher

Education Program and ECEL 2830 and ECEL 3850 for undergraduate students seeking certification in early childhood education.

ECON - Economics

In addition to any course prerequisites listed for the courses below, the Harmon College of Business and Professional Studies also enforces a course leveling prerequisite. This means that freshmen (those who have earned 0-29.5 semester hours of college credit) may enroll in 1000 level courses only, sophomores (completed 30-59.5 semester hours) may enroll in 2000 or 1000 level courses, juniors (completed 60-89.5 semester hours) may enroll in 3000, 2000 or 1000 level courses and seniors (all students who have earned 90 semester hours) may enroll in 4000 level courses or below.

ECON 1010 Principles of Macroeconomics (3) An introduction to principles underlying the operation of modern industrial countries. Special attention is given to the determinants of income and employment.

ECON 1011 Principles of Microeconomics (3) An introduction to the functioning of a market economy. Emphasis is on behavior of consumers and business firms and the resulting allocation of resources and distribution of income. Prerequisite: **ECON 1010**. FA, SP, SU.

ECON 2010 Orientation to the Economics Major (2) Familiarize economics majors with the CPI program, general outcomes, assessment activities (portfolio assessment), and future opportunities for economics majors. Prerequisite: **ECON 1010** or **ECON 1011**. FA.

ECON 3010 Intermediate Macroeconomics (3) Develop various theoretical frameworks for studying the forces affecting income, employment, and output in the economic system of the United States. Attention is given to the impact that government and other countries may have on these variables. Prerequisite: **ECON 1010**.

ECON 3013 Public Finance (3) The role of government in the modern mixed economy with emphasis on the impact of tax and expenditure policies on resource allocation and income distribution. Prerequisite: **ECON 1011**.

ECON 3020 Money and Banking (3) Money and banking structures including the Federal Reserve System and how it affects the economy. Monetary and National Income Theory are used to analyze economic policy. Prerequisite: **ECON 1010**. FA, SP.

ECON 3030 Intermediate Microeconomics (3) Conventional theory of consumption, production, pricing, and resource allocation. Prerequisite: **ECON 1011**. FA, SP.

ECON 3035 Internship in Economics (1-9) Opportunity for students to gain theoretical knowledge and practical application within a particular field of specialization. *May be repeated with consent of department and internship director. May be taken for pass/fail credit only.* Prerequisite: 60 semester hours and overall GPA of 2.5 or above, or consent of internship director. FA, SP, SU.

ECON 3065 Labor Economics (3) Survey of the labor force, wage and employment theories, economic insecurity including unemployment, trade unionism and collective bargaining from the standpoint of public policy. Prerequisites: **ECON 1010** and **ECON 1011**. FA.

ECON 4000 Senior Seminar in Economics* (3) The major will complete a research paper demonstrating the ability to address a research question (topics will vary) by applying theory and presenting empirical evidence and will prepare an oral presentation of the research project. Prerequisites: **ECON 3010** and **ECON 3030**. *Not available for graduate credit. FA, SP.

ECON 4010 International Economics (3) Principles underlying international trade and finance and analysis of current problems and related policies. Prerequisites: **ECON 1010** and **ECON 1011**. FA.

ECON 4015 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. Prerequisites: **ECON 1011** and **FIN 2801** or **MATH 1131** or **MATH 1151**.

ECON 4016 Mathematical Economics II (2) A continuation and more advanced study in the application of mathematical tools in economics. Prerequisite: **ECON 4015**.

ECON 4020 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. Prerequisites: **ECON 1010** and **ECON 1011**.

ECON 4030 Directed Studies in Economics (1-3) Intensive study of significant economic topics. *May be repeated for a maximum of 9 semester hours.*

ECON 4040 History of Economic Thought (3) Classical economists and the development of economic thought from the mercantilist period through the development of present thought. The course aims at establishing a synthesis of evolving doctrines which have become the basis of currently accepted economic theory. Prerequisite: **ECON 1011**.

ECON 4050 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.

ECON 4052 Regional and Urban Economics (3) Geographic regions and urban areas as economic systems with emphasis on location theory and economic policy in the regional/urban environments. Prerequisite: **ECON 1011**.

ECON 4054 Sports Economics (3) This course is 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. Prerequisite: **ECON 1011**. FA.

ECON 4060 Game Theory Applications (3) Provides game theoretical tools used widely in economics to study situations in which various decision-makers interact. Applications include political science and biology. Prerequisites: **ECON 1011** and **MATH 1111**. SP.

ECON 4065 Managerial Economics* (3) This course is designed to apply economic theory and statistical methods to managerial decision making. Allocation and pricing problems of business are key focuses. Prerequisites: **ECON 3010**, **ECON 3030** and **FIN 3801**. *Not available for graduate credit.

ECON 4070 Industrial Organization (3) An analysis of selected economic problems of current interest dealing primarily with the structure of American industry, with emphasis on the conduct and performance of large firms. Prerequisite: **ECON 1011**.

ECON 4075 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. Prerequisites: **ECON 1010**, **ECON 3030** and **FIN 3801**. SP.

ECON 4080 Econometrics I (3) Mathematical techniques and problems used in the quantitative approach to economic theory. Prerequisites: **ECON 3010** or **ECON 3030**; and **FIN 3801**.

EDFL - Educational Foundations and Literacy

EDFL 2100 Foundations of Education (2) An overview of the American public school; its nature, purpose, history, philosophy, organization and administration; contemporary issues and trends. Corequisite: should be taken concurrently with **FLDX 2150** during the sophomore year.

EDFL 2240 Educational Psychology (3) Furnishes the prospective teacher with the psychological concepts, principles, theories, research findings, and techniques relevant to guiding the educative process. It is strongly recommended that BSE and BME majors take this course concurrently with **EDFL 2100** and **FLDX 2150** during the sophomore year.

EDFL 3210 Methods of Reading Instruction (3) Fundamental concepts, skills, attitudes and methods of developing, promoting and managing reading instruction. The course includes tutoring and teacher-aide field experiences outside of class hours. Prerequisites: cumulative GPA of 2.5; **EDFL 2100** and **FLDX 2150** and **EDFL 2240**.

EDFL 3215 Teaching Reading in Content Fields (3) An examination of reading comprehension strategies, study skills, concept development, and critical thinking, especially with regard to the reading demands of content subjects and the needs of typical and atypical learners. Prerequisite: cumulative GPA of 2.5; **EDFL 3210**.

EDFL 3230 Introduction to Language, Literacy and Literature in the Middle Level Classroom, Block One (4) An introduction to instructional

practices appropriate for middle level content area teachers, implementing culturally responsive reading and writing programs in the classroom.

Topics include teaching reading provisions, young adult literature, writing, speaking and listening; unit planning and evaluation. Field experience (25 hours) in a middle school is required. Prerequisites: 2.5 GPA ; EDFL 2100, FLDX 2150 and EDFL 2240.

EDFL 3240 Application of Content Area Literacy for Middle Level Learners, Block Two (4) Prepares middle level teachers to address language, literacy and literature within content area instruction, focusing on promoting basic and higher-order literacy across the disciplines. Prerequisites: 2.5 GPA ; EDFL 2100, FLDX 2150, EDFL 2240 and EDFL 3230 This course is also designed to be taken concurrently with EDFL 4135.

EDFL 3410 Children's Literature (2) Familiarity with various types of literature for children, principles for selection of children's books, and methods of presentation for integration of children's literature into the total elementary curriculum. Prerequisites: cumulative GPA of 2.5; EDFL 2100 and FLDX 2150 and EDFL 2240.

EDFL 3440 Literature for the Middle Level (2) Familiarity with various types of literature for middle level children, principles for selection of books, and methods of presentation for integration of literature into the middle school curriculum. Prerequisites: cumulative GPA of 2.5; EDFL 2100 and FLDX 2150 and EDFL 2240.

EDFL 3500 Secondary Teaching and Behavioral Management (3) An analysis of the teaching/learning process with emphasis on instructional planning, component teaching skills and adolescent behavior management. This course should be taken no earlier than one semester prior to student teaching. Prerequisite: Admission to Teacher Education Program. Corequisite: FLDX 3550.

EDFL 4000 Special Projects in Education* (1-6) Individual or group study of problems in special areas of interest. *May be repeated for a maximum of 6 semester hours.* *Not available for graduate credit.

EDFL 4130 Fundamentals of Middle Level Education* (3) A 25 hour field experience course where students will gain an understanding of the unique developmental needs of early adolescents in middle school. Prerequisite: cumulative GPA of 2.5 and a background check on file. *Not available for graduate credit.

EDFL 4135 Middle Level Curriculum and Assessment* (3) A 25 hour field experience course prepares students to design instructional units and classroom lessons using standards. Students will learn assessment strategies. Prerequisites: EDFL 4130, Admission to Teacher Education Program, and a background check on file. *Not available for graduate credit.

EDFL 4210 The Teaching of Reading in the Secondary School (2) Designed to prepare both the regular secondary teacher to handle reading problems common to his/her special subject matter area and the reading teacher to carry out a general reading program in the high school. Prerequisites: Admission to Teacher Education Program; EDFL 2100 and FLDX 2150 and EDFL 2240.

EDFL 4220 Analysis and Correction of Reading Disabilities* (2) A focus on assessment of students' reading abilities and selecting appropriate teaching methods and materials to meet individual needs in reading instruction. The course includes a practicum, or field experience component, which permits application of learning and instructional decision-making. Prerequisites: Admission to Teacher Education Program; EDFL 3215 or EDFL 3230 or EDFL 4210. Corequisite: EDFL 4250. *Not available for graduate credit.

EDFL 4230 Response to Intervention for Middle School English Language Arts: Block Three* (4) Prepares pre-service English Language Arts teachers to meet the needs of middle school readers and writers at all levels, including Tiers 2 & 3 of Response to Intervention (RTI). The course focuses on assessments that drive instruction and appropriate methods, materials and strategies for the improvement of reading and writing. A 25 hour field component includes application of learning and instructional decision-making. Prerequisites: Admission to Teacher Education; EDFL 2100, FLDX 2150, EDFL 2240 and EDFL 3230 This course is also designed to be taken concurrently with EDFL 3240 and/or EDFL 4135. *Not available for graduate credit.

EDFL 4235 Methods of Teaching Middle Level English Language Arts* (3) A study of the purposes and methods of teaching language arts in the middle grades, with specific focus on culturally responsive teaching as it relates to adolescents. Topics include research-based approaches to

teaching reading, writing, listening and speaking; literature-based units; enhancing access to non-fiction; the writing process; philosophies and theories related to the teaching and learning of English Language Arts; resources; national and state standards for ELA. Prerequisites: Admission to Teacher Education; EDFL 2100, FLDX 2150, EDFL 2240. This course may be taken concurrently with EDFL 3230 or EDFL 3240. *Not available for graduate credit.

EDFL 4240 Integrated English Language Arts Curriculum & Assessment for Middle Level Learners: Block Four* (4) Theory and research models for culturally responsive English Language Arts at the middle level are connected to the development of Common Academic Standards (CAS) and initial teaching and assessment in the classroom within a 25 hour field component. Candidates develop, implement, assess and reflect upon reading, writing, speaking, listening, representing and the use of technology to enhance literacy for on-track and at-risk middle school learners. Prerequisites: Admission to Teacher Education; EDFL 2100, FLDX 2150, EDFL 2240, EDFL 3230 and EDFL 3240. This course is also designed to be taken concurrently with EDFL 4135. *Not available for graduate credit.

EDFL 4250 Practicum in Reading* (1) A supervised field experience in the assessment of reading, analysis of reading difficulties, and educational decision-making in planning and teaching appropriate lessons. Prerequisites: Admission to Teacher Education Program, EDFL 3215 or EDFL 3230 or EDFL 4210. Corequisite: EDFL 4220. *Not available for graduate credit.

EDFL 4300 Educational Assessment and Evaluation* (2) Instruction in the design, selection, and implementation of educational assessments, the generation and management of student data, and the interpretation and use of data to make instructional decisions. Prerequisite: cumulative GPA of 2.5. *Not available for graduate credit.

EDFL 4340 The Engaging Middle Level Classroom* (3) A 25 hour field experience course prepares students to manage instruction and behavior for a positive classroom environment. Prerequisites: Admission to Teacher Education Program, PSY 4230 and EDFL 4130. *Not available for graduate credit.

EDSP - Special Education

EDSP 2100 Education of the Exceptional Child (2) Identification of exceptional children, 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. Requires a directed field experience. FA, SP, SU, ONL.

EDSP 3150 Community and Family Resources (2) Early clinical observations and experiences using community and family resources concerned with various kinds of exceptionality. Prerequisite: EDSP 2100 or EDSP 5200. Corequisite: EDSP 3151. FA, SP, SU, OLO.

EDSP 3151 Community and Family Resources Practicum (1) Provides opportunities for preservice teachers to evaluate how community and family resources impact directly/indirectly on the lives of children. Requires a directed field experience. Prerequisite: EDSP 2100 or EDSP 5200. Corequisite: EDSP 3150. FA, SP, SU, OLO.

EDSP 4000 Special Projects in Special Education (1-5) Individual or group study of problems in special areas of interest. *May be repeated for maximum of 5 semester hours.*

EDSP 4140 Collaborating With Families of Exceptional Children (3) A study of the impact of exceptionality on family systems and how empowerment and community resources can strengthen the school-family partnership. Requires a directed field experience. Prerequisite: EDSP 2100 or EDSP 5200. FA, SP, SU.

EDSP 4150 Career Development for Students with Disabilities (2) Supportive services to students with disabilities within a career development context. Prerequisite: EDSP 2100 or EDSP 5200. FA, SP.

EDSP 4310 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. Prerequisite: EDSP 2100 or EDSP 5200. FA(E).

EDSP 4320 Introduction to Early Childhood Special Education (3) Basic information pertaining to the characteristics, care, treatment, and education of young children with special needs. Prerequisite: EDSP 2100 or EDSP 5200. FA.

EDSP 4330 Curriculum and Methods for Teaching Students with Autism and Severe Developmental Disabilities I (3) Teaching methodologies and curricula used in learning programs for individuals with severe forms of Autism Spectrum Disorders and for individuals with Severe Developmental Disabilities. Prerequisite: EDSP 2100 or EDSP 5200. FA(E).

EDSP 4350 Augmentative and Alternative Communication (3) Study and application of communication options, including manual sign language and communication devices. Prerequisite: EDSP 2100 or EDSP 5200. SP.

EDSP 4360 Behavioral Management Techniques (2) Practical approaches to behavior management for the classroom teacher, special educator, or clinician. Prerequisite: EDSP 2100 or EDSP 5200. FA, SP, SU.

EDSP 4361 Practicum in Behavioral Management Techniques (1) Practical experience in designing behavioral management programs and environments under supervision. Requires a directed field experience. Prerequisite: EDSP 4360 or concurrently. FA, SP, SU.

EDSP 4370 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. Requires a directed field experience. Prerequisite: EDSP 2100 or EDSP 5200. FA, SP, SU.

EDSP 4385 Introduction to Cross-Categorical Special Education (3) Information about the characteristics and education of children with mild/moderate disabilities. Prerequisite: EDSP 2100 or EDSP 5200. SP, SU. OLO.

EDSP 4420 Methods of Cross-Categorical Special Education (3) Teaching methods, materials and curricula for education of students with mild/moderate disabilities. Prerequisite: EDSP 4385. FA, SP.

EDSP 4421 Methods of Cross-Categorical Special Education I: Intellectual Disabilities/Other Health Impairments (3) Strategies for addressing general problems in teaching students with Intellectual Disabilities and Other Health Impairments in Cross-Categorical and other settings, including planning, materials and methods used. Requires a directed field experience. Prerequisites: Admission to Teacher Education Program and EDSP 4385. FA.

EDSP 4422 Methods of Cross-Categorical Disabilities II: Learning Disabilities (3) Characteristics, etiologies, definitions, legislation and issues related to the identification of and educational planning for individuals with learning disabilities. Requires a directed field experience. Prerequisites: Admission to Teacher Education Program and EDSP 4385. FA.

EDSP 4423 Methods of Cross-Categorical Special Education III: Emotional/Behavioral Disorders (3) Strategies for addressing general problems in teaching students with emotional and/or behavioral disorders in cross-categorical and other settings including planning, materials and methods used. Requires a directed field experience. Prerequisites: Admission to Teacher Education Program and EDSP 4385. FA.

EDSP 4440 Curriculum and Methods for Teaching Early Childhood Special Education (3) The teaching methods and curricula used for educating young children with special needs. Requires a directed field experience. Prerequisites: Admission to Teacher Education Program and EDSP 4320 and EDSP 4370. SP.

EDSP 4450 Curriculum and Methods for Teaching Students with Autism and Severe Developmental Disabilities II (3) Advanced teaching methodologies and curricula used in learning programs for individuals with severe forms of Autism Spectrum Disorders and individuals with Severe Developmental Disabilities. Prerequisites: EDSP 4330 and Admission to Teacher Education Program. SP(O).

EDSP 4470 Perceptual Motor Training for Students with Disabilities (2) Theories, assessment, instructional procedures, materials, and equipment adaptations for early childhood special education and students with severe developmental disabilities. Prerequisite: EDSP 2100 or EDSP 5200. SP. OLO.

EDSP 4620 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. Requires a directed field experience. Prerequisite: EDSP 2100 or EDSP 5200. An additional fee is assessed for this course. FA, SP, SU.

EDSP 4700 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. Prerequisite: EDSP 4620 and Admission to Teacher Education Program or graduate standing or Speech Pathology major. FA, SP, SU.

EET - Electronics Engineering Technology

NOTE: Some EET courses have a zero-credit laboratory requirement. The majority of the EET courses utilize an open lab system (where the student is expected to complete laboratory work by the instructor's due date on his/her own time, as class schedules and lab equipment availability permit).

EET 2300 Calculus for Electronics Engineering Technology (3) Methods of integration, partial derivatives, double integrals, derivatives and integrals in polar coordinates; empirical curve fitting, power series expansions, first and second-order differential equations; and use of software. Prerequisite: TECH 2040.

EET 2320 Advanced Digital Circuitry (3) Design of sequential networks, iterative networks, sequential networks with MSI integrated circuits, sequential networks using PLDs, state machines, asynchronous sequential networks, use of software for design analysis. Prerequisite: ET 1050.

EET 2330 Transform Analysis (3) Waveform analysis, Laplace transforms and their application to circuit analysis; Fourier analysis, use of z-transforms in discrete-time systems, and analysis software. Prerequisites: TECH 2040 or MATH 1131; and ET 2048.

EET 3034 Electronic Instruments and Measurements (4: 3 lecture, 1 lab) Design, operation and calibration of a variety of test instruments. Emphasis will be upon measurement procedures not normally practiced in introductory electronics courses. Prerequisite: ET 1050 or ET 2048 or concurrently. An additional fee is associated with this course.

EET 3048 Control of Electrical Machinery (4: 3 lecture, 1 lab) Analysis and application of electrical and electronic controls for industrial equipment. Programmable Logic Controllers are emphasized as well as techniques in engineering design. Prerequisite: ET 1010 or ET 1027 or consent of instructor. An additional fee is associated with this course.

EET 3310 Microprocessor Systems Design (3) Microprocessor/microcontroller internal architectures and timing; single and multiprocessor bus structures; memory subsystem design, designing polled I/O hardware/firmware, interrupt driven I/O hardware/firmware design, DMA, design of multiprocessor systems, segmentation and memory management, bit-sliced architectures, and use of manufacturer data sheets and application notes. Prerequisites: TECH 2040 and ET 2060.

EET 3320 Introduction to Data Communications (3) Fundamentals of data transmission, data encoding, multiplexing techniques, circuit and packet switching; local area networking, ISDN, frame relay, ATM, local area networking, and protocol analysis. Prerequisites: ET 2060, EET 2330 or concurrently.

EET 3330 Introduction to Communication Systems (3) Signal spectra, noise, AM transmitters, AM superheterodyne receivers, sideband systems, frequency modulation, phase modulation, phase-locked loops, FM transceivers, transmission lines, waveguides, radiowave propagation, antennas, and use of CAE software. Prerequisites: EET 2330 and EET 3310.

EET 3340 Control Systems Design (3) Introduction to analog control systems analysis and design including control system components, models of physical systems, state-variable models, system responses, control system characteristics, stability analysis, and use of CAE software. Prerequisites: ET 2058, EET 2300 or concurrently, and EET 2330.

EET 4300 Special Projects in Electronics Engineering Technology* (1-3) Investigation of contemporary problems and issues in electronics engineering technology by selected individuals or groups. *May be repeated for a maximum of 6 semester hours.* *Not available for graduate credit.

EET 4320 Advanced Control Systems Design* (3) Root-locus analysis and design; frequency response, modern control design, discrete-time systems, sampled-data systems, analysis and design of digital control systems; an introduction to nonlinear system analysis, and use of CAE software for the design, analysis, and simulation of control systems. Prerequisite: EET 3310 and EET 3340. *Not available for graduate credit.

EET 4330 Digital Signal Processing Systems Design* (3) An introduction

to the engineering fundamentals of digital signal processing. Emphasis is placed on the design, implementation, and testing of finite impulse response filters, infinite impulse response filters, adaptive digital filters, and sampling rate converter-decimators using DSP software design packages. Prerequisites: ET 2065, EET 2320, EET 2330, and EET 3310. *Not available for graduate credit.

ENGL - English

ENGL 1020 Composition I (3) The logic and rhetoric of expository writing. Prerequisite: placement according to University policy applies. Prerequisite: placement according to University policy applies. NOTE: For preparatory courses for ENGL 1020, see "Academic Enrichment" in this catalog. FA, SP, SU.

ENGL 1030 Composition II (3) Advanced writing involving research and the construction of academic arguments. Prerequisite: ENGL 1020 or equivalent. FA, SP, SU.

ENGL 1080 Advanced Composition (3) The logic and rhetoric of expository writing taught at an advanced level, involving research. Prerequisite: placement according to University policy applies. FA, SP, SU.

ENGL 1180 Spoken English as a Second Language (3) Guided practice for non-native English speakers in comprehending and producing oral English for academic purpose. *May be repeated for a maximum of 6 semester hours.* FA, SP, SU.

ENGL 1190 Written English as a Second Language (3) Guided practice for non-native English speakers in writing English for academic purposes. *May be repeated for a maximum of 6 semester hours.* Prerequisite: ENGL 1180 or consent of the English as a Second Language Committee. FA, SP, SU.

ENGL 2050 Creative Writing (3) Introduces students to terminology and techniques in writing and analyzing poetry and fiction; lecture and workshop format. FA, SP, SU.

ENGL 2200 American Literature to 1865 (3) An introduction to major American authors and works from the colonial period to the Civil War. Prerequisites: ENGL 1020 and (ENGL 1030 or CTE 3060); or ENGL 1080 with a grade of C or higher. FA, SP, SU.

ENGL 2205 American Literature 1865 to Present (3) An introduction to major American authors and works from the Civil War to the present. Prerequisites: ENGL 1020 and (ENGL 1030 or CTE 3060); or ENGL 1080 with a grade of C or higher. FA, SP, SU.

ENGL 2210 British Literature to 1798 (3) An introduction to major British authors and works from 700 to 1798. Prerequisites: ENGL 1020 and (ENGL 1030 or CTE 3060); or ENGL 1080 with a grade of C or higher. FA, SP, SU.

ENGL 2215 British Literature 1798 to Present (3) An introduction to major British authors and works from 1798 to the present. Prerequisites: ENGL 1020 and (ENGL 1030 or CTE 3060); or ENGL 1080 with a grade of C or higher. FA, SP, SU.

ENGL 2220 World Masterpieces (3) Major works of world literature, excluding British and American. Prerequisites: ENGL 1020 and (ENGL 1030 or CTE 3060); or ENGL 1080 with a grade of C or higher. FA, SP, SU.

ENGL 2230 Literature and Film (3) Reading and discussion of selected novels and film scripts combined with laboratory viewing sessions. AN.

ENGL 2240 Literature and the Arts (3) A course relating literature to the arts of painting, sculpture, architecture, music, and the dance. AN.

ENGL 2270 Fiction by Women Around the World (3) Novels and short stories by women around the globe. AN.

ENGL 2290 Science Fiction and Fantasy (3) An introduction to science fiction and fantasy. AN.

ENGL 2830 Literature for Adolescents (3) Reading course intended for those who will teach high school English. SP.

ENGL 3040 Advanced Rhetoric (3) Practice in the devices of effective writing. SP.

ENGL 3051 Advanced Poetry Writing (3) Poetry writing at advanced level; written and oral analysis of students' creative work; preparation of individualized portfolio (may include research); workshops. Prerequisites: ENGL 2050 or consent of instructor. FA.

ENGL 3052 Advanced Fiction Writing (3) Fiction writing at advanced level; written and oral analysis of students' creative work; preparation of individualized portfolio (may include research); workshops. Prerequisites: ENGL 2050 or consent of instructor. SP.

ENGL 3110 English Grammar (3) A comparative study of English grammars with strong emphasis on traditional grammar and including structural and transformational approaches. FA.

ENGL 3120 History of English Language (3) Growth and nature of the English language. FA, SP.

ENGL 3230 Special Topics in Gothic Literature (3) This course is designed to cover topics in the literature of horror and the supernatural of interest to English majors and non-majors. AN.

ENGL 3240 Critical Approaches to Literature (3) Introduces students to literary criticism and its practical application through the study of literary texts and critical essays, and through writing assignments. FA, SP.

ENGL 3660 Studies in Literature and Philosophy (3) An interdisciplinary approach to the study of literature and philosophy. Course instructors will change to fit the particular topic of the course. AN.

ENGL 3990 Special Topics in English (1-3) Individual or group work by qualified students in areas such as creative writing, literature, or language. *May be repeated for a maximum of 6 semester hours.* Prerequisite: approval of department chair. AN.

ENGL 4051 Writing Poetry for Publication* (3) Poetry writing at advanced level; written and oral analysis of published works and of students' submissions; preparation of individualized portfolio; individualized research into publishing. Prerequisite: ENGL 2050 or consent of instructor. *Not available for graduate credit. SP.

ENGL 4052 Writing Fiction for Publication* (3) Fiction writing at advanced level; written and oral analysis of published works and of students' submissions; preparation of individualized portfolio; individualized research into publishing. Prerequisite: ENGL 2050 or consent of instructor. *Not available for graduate credit. FA.

ENGL 4053 Writing Non-fiction for Publication* (3) Non-fiction prose writing at advanced level; written and oral analysis of published works and of students' submissions; preparation of individualized portfolio; individualized research into publishing. Prerequisite: ENGL 2050 or consent of instructor. *Not available for graduate credit. AN.

ENGL 4054 Practicum in Editing and Publishing* (3) Hands on experience in editing and publishing in such areas as literary editing and publishing, technical writing, books editing, legal writing, and others. Prerequisite: Consent of instructor. *Not available for graduate credit. SP.

ENGL 4055 Writing Genre Fiction* (3) Explores form and formula in genre-writing; examines masterpieces of fantasy, mystery, horror, and science fiction from the writers' perspective as students attempt to write these forms. Prerequisites: ENGL 2050 and ENGL 3052. *Not available for graduate credit.

ENGL 4061 Advanced Technical Writing* (3) Focus on the theories of effective technological communication, including audience analysis, and rhetorical, and organizational communication theories. Includes exposure to editing types and writing styles common in industry practice. Prerequisite CTE 3060. *Not available for graduate credit.

ENGL 4062 Senior Capstone: Professional Ethics and Service Learning in Technical Writing* (3) Focus on the ethics of technical writing: providing honest, accurate, and usable information, which will warn users of dangerous processes; the legal expectations of technical writers, and reconciling personal and professional ethics. Encourages internships. Prerequisite ENGL 4061. *Not available for graduate credit.

ENGL 4110 Linguistics (3) Introduction to the study of language as a system of human communication.

ENGL 4120 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.

ENGL 4240 Senior Capstone in Literature* (3) Senior seminar devoted to a core topic, theory, or figure(s) in literature. Prerequisite: Senior standing or permission of the instructor. *Not available for graduate credit.

ENGL 4310 Chaucer (3) Life and times of Chaucer with extensive reading in his major works.

ENGL 4330 Renaissance English Writers (3) Literary figures of the Elizabethan and Jacobean periods, excluding Shakespeare.

ENGL 4340 Old and Middle English Literature (3) Literary genres and contributions from *Beowulf* to 1500 (excluding Chaucer).

ENGL 4360 Shakespeare (3) Study seven or more Shakespearean plays, including comedies, histories, tragedies and romances, with attention to Renaissance backgrounds, literary analysis, and theatrical traditions. FA, SP.

ENGL 4450 The Age of Milton (3) English poetry, prose, and drama of the Puritan and Restoration times.

ENGL 4460 Wits and Satirists: 1660-1800 (3) Fiction, poetry, essays and drama during the times of Pope and Johnson.

ENGL 4500 Nineteenth-Century English Novel (3) Representative novels from Austen through Gaskell.

ENGL 4510 Romantic Poets and Essayists (3) Major poets and essayists of the English Romantic period.

ENGL 4540 The Victorian Poets and Essayists (3) Major poets and essayists of the English Victorian period.

ENGL 4560 British Women Writers (3) Study of major works by British women writers, with an introduction to feminist criticism.

ENGL 4610 American Renaissance (3) The works of Emerson, Hawthorne, Thoreau, and Melville. AN.

ENGL 4620 Early American Literature (3) Major figures of colonial, federal, and early 19th century literature. SP.

ENGL 4640 American Realists and Naturalists (3) Works of Twain, Howells, James, Dreiser, Chopin, and Crane.

ENGL 4660 Women Writers of the United States (3) Study of major works by women writers of the United States, with an introduction to feminist criticism.

ENGL 4670 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.

ENGL 4680 African American Literature (3) A survey of African American writers from the Colonial period to the present with emphasis on twentieth-century writers. FA.

ENGL 4700 British Fiction 1890 to Present (3) Representative fiction by major British authors from 1890 to the present.

ENGL 4710 Modern American Fiction (3) Representative fiction by major American writers from 1900 to the present.

ENGL 4720 Modern British Poetry (3) British poetry of the twentieth century.

ENGL 4730 Modern American Poetry (3) American poetry of the twentieth century.

ENGL 4740 Modern Drama (3) Readings in the significant drama of the twentieth and twenty-first Centuries.

ENGL 4810 Seminar in Teaching English (2-3) *May be repeated with different offerings*, such as Individualizing Instruction, Teaching Traditional Grammar, How to Teach the Novel, Techniques of Theme Grading, Teaching Creative Writing, or Teaching Prosody. *May be repeated for a maximum of 6 semester hours of undergraduate credit and 6 semester hours of graduate credit.* AN.

ENGL 4820 Secondary Field Experience II* (1) Experiences in the secondary school classroom that provide the teacher candidate more advanced involvement in the teaching-learning process. Prerequisites: admission to Teacher Education Program; should be taken concurrently with ENGL 4890 during the Professional Semester. *Not available for graduate credit. FA, SP.

ENGL 4840 Composition and Evaluation (3) Techniques of writing and evaluating composition for those planning to teach. FA.

ENGL 4890 Methods of Teaching English* (2) Prerequisites: admission to Teacher Education Program; double majors must take a methods course for each major; methods should be taken concurrently with ENGL 4820 during the Professional Semester. *Not available for graduate credit. FA, SP.

ENGL 4990 Special Projects in English (1-3) *May be repeated for a maximum of 6 semester hours.* AN.

ENGT - Engineering Technology

ENGT 1000 Principles of Engineering (3) This introductory course explores the wide variety of careers in engineering and technology and covers various technology systems and manufacturing processes. An additional fee is associated with this course.

ENGT 1010 Materials for Manufacturing and Construction (3) Construction materials, including sources, characteristics, uses, and standard sizes and packaging, with relative values of different grades.

ENGT 1012 Global Production Technology (2) Study of production technology along with the problems, successes and challenges of the application of technology globally. An additional fee is associated with this course.

ENGT 1120 Welding (3: 2 lecture, 1 lab) Study and practice of four basic welding processes: oxyacetylene, metallic arc, MIG and TIG. An additional fee is associated with this course.

ENGT 1500 Orientation to Engineering Technology (1) An introduction to Engineering Technology as an academic endeavor including the consideration of subdisciplines, program requirements, and professional opportunities. An additional fee is associated with this course.

ENGT 1501 Seminar in Engineering Technology (1) Forum to provide students an opportunity to learn about current events in the engineering field through the use of guest speakers, open discussions, and informative field trips. Students should expect to share cost of field trips and professional materials. *Must be repeated for a minimum of 2 semester hours.*

ENGT 1510 Introduction to Manufacturing Processes (3: 2 lecture, 1 lab) An overview of the primary processes and a basic knowledge of secondary manufacturing processes which are classified as separating, casting, forming, conditioning, assembling, and finishing. An additional fee is associated with this course.

ENGT 2040 Engineering Material Science (4: 3 lecture, 1 lab) Study of materials and their testing for construction, engineering and manufacturing: sources, characteristics, applications, standard sizes, packaging, testing theory, inspection and testing per ASTM standards. An additional fee is associated with this course.

ENGT 2210 Finishing and Upholstering (3) Finishing materials, their application and treatment on various woods and metals; refinishing and upholstering.

ENGT 2500 Applied Computer Technology (2) Develops computer literacy through a study of microcomputers, peripherals and applications, and software.

ENGT 2515 Applied Manufacturing Processes (3: 2 lecture, 1 lab) The manufacturing processes used to fabricate and form engineering materials into useful products. Includes laboratory experiences using the common materials and basic processes. Prerequisite: ENGT 1510. An additional fee is associated with this course.

ENGT 2530 Machine Tool Technology (3: 2 lecture, 1 lab) An introduction to machine tools with experiences in turning, drilling, milling, grinding, and related bench work. Assigned projects. An additional fee is associated with this course.

ENGT 2600 Lean Enterprises (3) Exploration and applied engineering principles of lean systems for manufacturing and services. Value-added theories and processes experienced include: process mapping, just-in-time, Kanban, 5S, Kaizen, error-proofing, work optimization, productive maintenance and supply chain management.

ENGT 3001 New and Existing Energy Technology (3) This course explores the world of conventional and sustainable energy and how it will affect society as a whole. Topics of the course include society's energy dependence, energy depletion, electricity and the utility industry, hydrocarbons as a fuel source, nuclear energy, hydropower energy, sustainable energy and energy strategies of the future.

ENGT 3120 Advanced Welding Technology I (3: 2 lecture, 1 lab) This course is designed to provide students with a study and practice of advanced welding and cutting processes: automated plasma arc cutting, axial spray transfer, pulse and pulse on pulse transfer, out of position GMAW and SMAW as well as GTAW of aluminum and stainless steel base metals. Prerequisite: ENGT 1120.

ENGT 3130 Composite Technology I (3) Fundamental principles of materials, basic design theory, manufacturing processes, inspection and repair concepts.

ENGT 3200 Energy Production and Transmission (3) This course explores how electric power is produced, transmitted and distributed. Topics of the course include: the generation of electricity (conventional and nonconventional), electric transmission systems, electric distribution systems and power quality.

ENGT 3210 Manufacturing in the Aerospace Industry (3) Manufacturing activities required in order to plan, organize, schedule, control and direct manufacturing activities in the environment of an aerospace industry.

ENGT 3300 Energy Conservation (3) This course encompasses how energy is measured, supplied, analyzed and conserved. Topics covered in this course include: the measurement of energy, environmental impacts of energy consumption, competition in the energy industry, energy audits and analysis techniques, energy monitoring, energy efficiency and low energy building design.

ENGT 3501 Computer Programming for Manufacturing (3) Students

will study control logic, data acquisition, data storage and computer programming as they relate to manufacturing. Prerequisite: MATH 1210.

ENGT 3510 Engineering Planning and Control (3) Planning and controlling the manufacturing process including materials, machines, people, and suppliers. An additional fee is associated with this course.

ENGT 3520 Engineering Economy (3) Elements that influence the cost of manufactured products, the process of determining manufacturing costs, cost justification, value analysis and cost reduction analysis. Prerequisite: MATH 1111. An additional fee is associated with this course.

ENGT 3530 Inspection and Quality Control (3) Principles and methods of controlling the quality of manufactured products. Emphasis will be on gauging and inspection. An additional fee is associated with this course.

ENGT 3550 Principles of Numerical Control (3) Introduction to N/C Machining Operations. Includes laboratory work in writing and executing manual program on N/C Machine Tools.

ENGT 3562 Computer Numerical Control (CNC) (3: 2 lecture, 1 lab) Concepts presented and analyzed include CNC machine set-up, tooling selection, part set-up, inspection methods, programming, industrial machining centers, flexible manufacturing systems and rapid prototyping systems. An additional fee is associated with this course.

ENGT 4060 Aerospace Manufacturing Safety (3) Safety, health and environmental issues in aerospace manufacturing with an emphasis on the management of safety programs in manufacturing industries.

ENGT 4110 Engineering Technology Problem Solving* (3) Designed for students preparing for careers in engineering technology. Student teams will analyze manufacturing problems, propose solutions, and present recommendations. Prerequisite: senior standing. An additional fee is associated with this course. *Not available for graduate credit.

ENGT 4120 Hydrology and Drainage Design* (3) Study of basic hydraulic engineering and hydrology concepts focused on open channel flow and culvert design. Hydraulic design topics include: basic hydraulic concepts, open channels, culverts, storm water systems, and detention basins; design of sedimentation control devices; and current environmental regulations. Hydrology topics covered include: calculating storm water runoff and erosion and sedimentation control measures. Course work involves the application of software in analysis and design. Prerequisite: EASC 2100. *Not available for graduate credit.

ENGT 4140 Soils and Foundation Design* (3) Basic principles of soil mechanics and foundation design and their application to civil engineering. Soils topics include the identification and classification of soils, permeability, soil strengths, drainage and frost action, compaction and stabilization, and evaluation of highway subgrades. Standard laboratory soil tests are performed to determine the physical and mechanical properties of soils. This knowledge is then applied to engineering designs such as excavation bracing, soil stabilization, geotextiles, spread footings, pile foundations, retaining walls, and earth retaining structures. Prerequisite: EASC 2100. *Not available for graduate credit.

ENGT 4160 Transportation Systems Design* (3) The principles and practices of transportation systems – highway, mass transit, rail, waterways, and air transportation are covered. Special emphasis is placed on highway planning and design, construction, and safety. Highway design principles, including environmental impact, traffic studies, location planning, horizontal and vertical alignment studies, intersections and interchanges, earthwork, drainage, and pavement design are studied. Prerequisite: ENGT 4120. *Not available for graduate credit.

ENGT 4180 Water and Wastewater Systems Design* (3) This course studies the fundamental principles and applications of water distribution systems, wastewater collection systems, and water and wastewater treatment processes. Topics include current methods and procedures employed in drinking water system demands; water distribution systems; water treatment processes; wastewater system demands; wastewater collection systems; including gravity sewers, force mains, pump stations, and permitting requirements. Prerequisite: ENGT 4120. *Not available for graduate credit.

ENGT 4200 Ethical and Legal Issues in the Energy Industry* (3) This course covers the foundational economic and ethical issues related to the energy industry as well as the laws that guide and manage it. Topics covered in this course include: the economics of energy, ethics in the energy industry, energy policy, administration of energy regulations, energy decision making, and industry overviews of the major energy sources. *Not available for graduate credit.

ENGT 4221 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.

ENGT 4300 Energy Markets and Structures* (3) This course covers how energy markets are structured and regulated as well as the dynamics of current energy markets. In addition the course investigates how utilities make money, concepts of market restructuring, and the future of the electricity business. *Not available for graduate credit.

ENGT 4400 Energy Facilities Management* (3) This course covers the variety of topics, issues and variables related to the control and operation of electric power systems. In this course students will learn about power system components, calculations related to the generation, distribution and loads on a power system, electromagnetic phenomena, electromechanical dynamics, and voltage and frequency stability. *Not available for graduate credit.

ENGT 4520 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. An additional fee is associated with this course.

ENGT 4550 Simulation in Engineering Technology (3) Collection of methods and applications to simulate the behavior of manufacturing and service systems. Emphasis on hands-on time with software utilizing case studies and lab exercises. Prerequisite: senior standing or graduate status. An additional fee is associated with this course.

ENGT 4580 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. An additional fee is associated with this course.

ENGT 4590 Computer Integrated Manufacturing (CIM) (3: 2 lecture, 1 lab) 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. Prerequisite: ENGT 4520 or consent of instructor. An additional fee is associated with this course.

ENGT 4750 Lean Six Sigma (3) Exploration and applied engineering principles of Lean Six Sigma for manufacturing and services. Value-added theories and processes experienced include: process improvement, strategic planning, costs of quality, performance measures, project management, DMAIC problem solving, statistics, control charts, process capability, reliability, design of experiments (DOE), failure modes and effects analysis (FMEA), and Lean Six Sigma. Prerequisite: ENGT 2600.

ENT - Entrepreneurial

In addition to any course prerequisites listed for the courses below, the Harmon College of Business and Professional Studies also enforces a course leveling prerequisite. This means that freshmen (those who have earned 0-29.5 semester hours of college credit) may enroll in 1000 level courses only, sophomores (completed 30-59.5 semester hours) may enroll in 2000 or 1000 level courses, juniors (completed 60-89.5 semester hours) may enroll in 3000, 2000 or 1000 level courses and seniors (all students who have earned 90 semester hours) may enroll in 4000 level courses or below.


ENT 1501 Youth Entrepreneurship Program (2) Provides knowledge to start and maintain a business, helps students understand how to be an entrepreneurial employee, and informs students on business related careers. The curriculum is designed to give real world experience and knowledge to potential entrepreneurs and innovators from K-12 in a summer program environment. Along with specific business skills students will be encouraged to pursue higher education. Prerequisite: Enrollment by summer program director in the Youth Entrepreneurship Program.

ESE - Entrepreneurial and Social Enterprises


ESE 1300 Introduction to Entrepreneurship and Business (3) Introduces several types of entrepreneurship (start-up, corporate intrapreneurship, family business) as well as external and internal forces that effect the decisions in any business venture. May not be taken for credit by students who have completed in excess of 12 semester hours of B.S.B.A. courses.

ESE 3335 Entrepreneurial Internship (1-3) As a result of participating in the Entrepreneurship and Social Enterprise Internship / Internship course, students will be able to: apply theory and classroom learning to an actual business environment; examine and test their ability to launch a product or service venture; gain practical work experience in their product or service venture's industry or in an entrepreneurial environment; develop communication and human relations skills.

ESE 3350 Special Projects in Entrepreneurship (1-3) Junior level course in entrepreneurship or social entrepreneurship theory, practice, methods and strategies taught on an individual or group basis to advanced entrepreneurship students. *May be repeated for a maximum of 6 semester hours.*


 **ESE 3710 Entrepreneurial Business Planning (3)** Will prepare participants to design and launch new business ventures, continue family ventures, or engage in small business. This course develops the ability to identify new product opportunities and/or ideas for a new business, determine the feasibility of that new business, and write a business plan in support of that new business. This course is writing and team intensive. Students will interact with successful entrepreneurs from different industries, who will give workshops on their area of expertise. Each business plan will include an environmental and/or social impact statement. Hands-on experiences will include applying classroom concepts to a real business product or service through a class project. Plans made in this class will be further developed in Social Enterprise For Entrepreneurs and then launched in Commercialization. Corequisite: ESE majors must take ESE 3715 concurrently. SP.

ESE 3715 Entrepreneurial Business Planning Lab (1) Teams of entrepreneurial students participate actively each week on-site with ESE faculty and senior students to gain experience in growing and running a new venture. Students will focus on urgent business aspects of the companies developed and launched through course ESE 3710, ESE 3720 and ESE 4710. Such aspects include reaching the target market, choice of sales approach to initial customers, changes to initial business strategy, and day to day operations, management and administration. Students are expected to work 4-6 hours weekly. Corequisite: ESE 3710.

 **ESE 3720 Social Enterprise for Entrepreneurs (3)** Teams of students will recognize and analyze elements of business ventures such as social responsibility and social enterprise. They will apply entrepreneurial principles to organize, create, and manage a sustainable venture to make social change. Whereas a business entrepreneur typically measures performance in profit and return, a social entrepreneur assesses success in terms of the impact s/he has on society. Students will learn to work and make change in a variety of sectors (private, not-for-profit, and government) by creating a new social enterprise or by working with an existing student company. Corequisite: ENT 3725. FA.

ESE 3725 Social Enterprise Lab (1) Teams of entrepreneurial students participate actively one day a week on-site with ESE faculty and senior students to gain experience in growing and running a new venture. Students will focus on urgent social responsibility aspects of the companies developed and launched through course ESE 3710, ESE 3720 and ESE 4710. Such aspects include creating a sustainable social enterprise, creating a venture that promotes social justice, and implementing social responsibility in all business practices. Students are expected to work 4-6 hours weekly. Corequisite: ENT 3720.

ESE 3750 Special Projects in Entrepreneurship (1-3) Junior level course in entrepreneurship or social entrepreneurship theory, practice, methods and strategies taught on an individual or group basis to advanced entrepreneurship students. *May be repeated for a maximum of 6 semester hours.*

 **ESE 4710 Commercialization* (3)** This course is designed to prepare students to design, prototype and commercialize new products or services. The course will examine the commercialization process including: Research, Prototype Development, Commercialization Paths, Early Stage Marketing, Intellectual Property, & Licensing. Other related topics include business plan issues, such as business entity, cash flow, sources of money, and pitching to investors. Students are encouraged to bring business product or service ideas to work on. SU.

Corequisite: ESE 4715. SP. *Not available for graduate credit.

ESE 4715 ESE Commercialization Lab* (1) Teams of entrepreneurial students participate actively one day a week on-site with ESE faculty and senior students to gain experience in growing and running a new venture.

Students will gain hands-on leadership experience in launching and running a startup business. Such experience may include: choosing initial markets, approaching new customers, and communicating product value. Students are expected to work 4-6 hours weekly. Corequisite: ESE 4710. *Not available for graduate credit.

ESE 4850 Entrepreneurial or Social Venture Start-up* (1-3) As a result of participating in the Entrepreneurship and Social Enterprise Internship/Start-up course, students will be able to: apply theory and classroom learning to an actual start-up business environment; examine and test their ability to launch a product or service venture; develop communication and human relations skills. *Not available for graduate credit.

ET - Electronics Technology

Some ET courses have a zero-credit laboratory requirement. Labs are scheduled for ET 1010, ET 1026, ET 1027, ET 1050, ET 2048, ET 2058, ET 2060, ET 2065, ET 3014, ET 3020, and ET 3041. The majority of the remaining ET courses utilize an open lab system (where the student is expected to complete laboratory work by the instructor's due date on his/her own time, as class schedules and lab equipment availability permit).

ET 1010 Applied Electricity (4: 3 lecture, 1 lab) Provides basic theory together with appropriate lab experiences for introductory technical training in electrical principles including basic circuits, Ohm's Law, A.C. and D.C. theory, as well as generation and application of electrical energy. An additional fee is associated with this course.

ET 1020 General Electronics (3) A general overview of several areas of electronics including the study of electronic measurements, active and passive devices, receiver and transmitter theory, basic digital theory, and electronic controls. Prerequisite: Not open to electronics majors or minors. An additional fee is associated with this course.

ET 1026 DC Circuit Analysis (4: 3 lecture, 1 lab) Analysis and application of D.C. principles to passive networks. Laboratory experience in the use of basic test instruments. Prerequisite: TECH 1040 or MATH 1111 may be taken concurrently. An additional fee is associated with this course.

ET 1027 AC Circuit Analysis (4: 3 lecture, 1 lab) Application of alternating current principles to resistive, capacitive, and inductive circuits. Phasor analysis of series-parallel impedance. Resonance and filters are covered. Laboratory experiments using typical test instruments. Prerequisite: ET 1026. An additional fee is associated with this course.

ET 1050 Digital Principles and Applications (4: 3 lecture, 1 lab) Binary numbers, logic gates, Boolean algebra, parity generation and detection, arithmetic circuits, flip-flops and latches, and troubleshooting digital circuits using current industry standard techniques. An additional fee is associated with this course.

ET 2048 Active Electronic Devices (4: 3 lecture, 1 lab) Theory, operation, and analysis of Integrated Active Devices and Discrete Semiconductor Active Devices. Basic digital and common analog circuit configurations. Prerequisite: ET 1027 or concurrently. An additional fee is associated with this course.

ET 2058 Operational Amplifiers-Theory and Applications (4: 3 lecture, 1 lab) A study of integrated circuit operational amplifiers, their characteristics and a wide range of applications. Construction and testing of numerous circuits. Prerequisite: ET 2048. An additional fee is associated with this course.

ET 2060 Microprocessors: Theory and Application (4: 3 lecture, 1 lab) The fundamental concepts of microprocessors including software development and hardware design. Design of input/output interface circuits together with numerous applications to industrial controls. Prerequisite: ET 1010 or ET 1050 or concurrently. An additional fee is associated with this course.

ET 2065 Computer Programming for Electronics Technology (4: 3 lecture, 1 lab) Contemporary computer programming languages for electronics technology. Programming techniques and skills as applied to troubleshooting industry standard computer hardware. *May be repeated. If repeated, a different programming language must be studied.* Prerequisite: ET 1050 or concurrently. An additional fee is associated with this course.

ET 3014 Analog-Digital Circuitry (4: 3 lecture, 1 lab) Counters, shift registers, monostable multivibrators, memories, A/D and D/A converters, phase-locked loops, digital simulation software, and troubleshooting digital circuits using current industry standard techniques. Prerequisite: ET 1050. An additional fee is associated with this course.

ET 3017 Industrial Electronics (4: 3 lecture, 1 lab) Analysis of selected industrial controls and components to include transducers, sensors, time delay circuits, motor controls, and thyristors. Emphasis on commercial programmable logic controller installation and programming. Practical applications of industrial electronic devices and systems and further development of troubleshooting skills. Prerequisite: ET 1010 or ET 1026. An additional fee is associated with this course.

ET 3020 Circuit Analysis and Implementation (4: 3 lecture, 1 lab) Research, analyze, and construct a variety of circuits using state-of-the-art technologies. Students will use the internet and published materials to construct projects. Prerequisites: ET 2048 or consent of instructor. An additional fee is associated with this course.

ET 3022 AC and DC Machines (4: 3 lecture, 1 lab) Basic principles of alternating and direct current motors and generators including construction, theory of operation, industrial uses and maintenance considerations. Prerequisite: ET 2048 or consent of instructor. An additional fee is associated with this course.

ET 3038 Audio Systems (4: 3 lecture, 1 lab) Principles of sound and acoustics: audio amplifiers, microphones, speakers, mixers, and equalizers; magnetic tape and disc recording; audio measurement techniques. Prerequisite: ET 2048. An additional fee is associated with this course.

ET 3041 Communication Systems (4: 3 lecture, 1 lab) A study of receiver and transmitter circuits and systems. Modulation methods, signal propagation, and antenna design. Practical alignment methods, measurement techniques, and troubleshooting procedures. Preparation for the F.C.C. commercial license. Prerequisite: ET 2048 or concurrently. An additional fee is associated with this course.

ET 4000 Special Projects in Electronics Technology (1-3) Investigation of contemporary problems and issues in electronics technology by selected individuals or groups. *May be repeated for a maximum of 6 semester hours.*

ET 4014 Advanced Technical Problems in Electronics (1-4) Individual/group work on recent developments and advanced technical concepts. Experimentation and technical exploration of content not available through formal course offerings. *May be repeated for a maximum of 8 semester hours.*

ET 4031 Introduction to Process Control* (4: 3 lecture, 1 lab) Implementation, evaluation, tuning and troubleshooting of process control systems. Selection of sensing devices and final control elements. Emphasis on laboratory activities. Application of microprocessor-based systems including programmable controllers. Prerequisites: ET 3017. An additional fee is associated with this course. *Not available for graduate credit.

ET 4044 Video Systems* (4: 3 lecture, 1 lab) Television cameras and the composite video signal. VHF, UHF, cable, and satellite TV distribution systems. Television receiver and monitor circuitry and troubleshooting techniques. Prerequisite: ET 2048. An additional fee is associated with this course. *Not available for graduate credit.

ET 4048 Advanced Communication Systems* (4: 3 lecture, 1 lab) Mobile radio repeater systems and signaling modes; spread spectrum communications; commercial broadcast installations; microwave signal sources; amplifiers; waveguides and cavities; antennas and radar systems. Prerequisite: ET 3041. An additional fee is associated with this course. *Not available for graduate credit.

FAME - Fashion and Apparel Merchandising

FAME 1400 Principles of Fashion Merchandising (3) Students will explore all segments of the fashion industry and identify careers within each area. An overview of fashion products from concept to consumer is covered with an emphasis on consumer demand and trend cycles for wholesale and retail markets.

FAME 1445 Freshmen Seminar in Fashion (1) Students will start to develop leadership skills, relationships with peers and faculty and a plan for a successful career at UCM and beyond. Participation in committee work, professional organizations, and service learning will help students learn to communicate effectively, analyze situations and make informed decisions. Prerequisite: freshman standing.

FAME 1450 Fundamentals of Apparel Design and Construction (3: 2 lecture, 1 lab) An introductory course with an emphasis on the construction of apparel goods using computerized equipment and

software. Students will apply the elements and principles of design to basic garment components and fit. Students will create projects that exhibit creativity and quality workmanship in a laboratory setting.

FAME 2425 Apparel Quality Analysis (3) Students will learn the importance of quality assurance, product standards, tolerances, and specifications in producing quality apparel products. Based on current industry standards and terminology, students will compare and evaluate commercially-produced apparel products.

FAME 2440 Professional Work Experience (1-3) Supervised work experience in an approved business establishment with an emphasis on textile, apparel and/or accessory merchandise. Students broaden their knowledge base and develop skills that apply to career interests within a fashion-related business. *May be repeated for a maximum of 6 semester hours.*

FAME 2442 Textile Science (3) This class explores the characteristics of fibers, yarns, fabric construction, and finishing processes. Textile behavior, performance and maintenance as they relate to end products and consumer use will be addressed. An additional fee is associated with this course.

FAME 2445 Sophomore Seminar in Fashion (1) Students will continue to develop leadership skills, relationships with peers and faculty and a plan for a successful career at UCM and beyond. Continued participation in committee work, professional organizations, and service learning will help students learn to communicate effectively, analyze situations and make informed decisions. Prerequisite: sophomore standing.

FAME 2450 Advanced Apparel Design & Construction (3) Students will create garments using advanced garment construction techniques and fabrics. Knitwear, tailoring, specialized equipment, and pattern/fit modification will be addressed. Prerequisite: FAME 1450. An additional fee is associated with this course.

FAME 3415 Product Development for Consumers (3) Students will study diverse target markets and their fashion needs as related to price and product segments. Apparel products that meet consumer needs will be developed using current computer software. Prerequisite: FAME 2425.

FAME 3430 Professional Image Management (3) Image management is designed for individual professional development in a respective career field. This course is designed to prepare students for internships and career paths with an emphasis on resume development, best business dress practices, interviewing techniques, and appropriate etiquette rules. This course will also challenge individual decision-making processes through written representation and oral presentation for total image management.

FAME 3434 Fashion History of Costume (3) This class will follow the evolution of dress from the earliest beginnings through the twenty-first century with an emphasis on western civilizations. The impact of social, economic, political, environmental, and religious customs associated with dress will be analyzed.

FAME 3435 Fashion Buying (3) Through a buying simulation, students will apply market research to create merchandising, mark-up, mark-down, and sales plans using wholesale mathematic formulas. Current computer software will be utilized to create appropriate documents used by buyers. Prerequisites: FAME 2425, ACCT 2101.

FAME 3440 Fashion Promotion and Visual Merchandising (3) Students will evaluate and design visual displays in real-world and virtual settings. Students will also use current technology to create different promotional items to be used in the fashion industry, such as websites, fliers, print ads, branding packages, and signage.

FAME 3442 Sustainability for Consumer Products (3) Students will gain knowledge about sustainable practices and an awareness of how companies can reduce their environmental impact while increasing profits. This class will also address the production and sale of sustainable textile products used by consumers.

FAME 3445 Junior Seminar in Fashion (1) Students will continue to develop leadership skills, building relationships with peers and faculty, and a plan for a successful career. Continued participation in committee work, professional organizations, and service learning will help students practice communicating effectively, analyzing situations and make informed decisions. Prerequisite: junior standing.

FAME 4410 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. An

additional fee is associated with this course.

FAME 4414 Advanced Technical Problems in Fashion

(3: 3 lecture, 0 lab) Individual or group work on advanced technical problems in Fashion/Apparel Merchandising. Provide exploration of content not available through normal course offerings. *May be repeated for a maximum of 6 semester hours.* Prerequisites: minimum cumulative GPA of 2.5, written contract/proposal with objectives/learning competency and written department consent. An additional fee is associated with this course.

FAME 4424 Pattern Design (3) The design and construction of garments from a basic pattern, using the principles of art as applied to dress design. Prerequisites: FAME 3430 and 3 semester hours of clothing construction. An additional fee is associated with this course.

FAME 4425 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. Prerequisite: FAME 3435.

FAME 4430 Merchandising Applications (3) Builds upon the necessary understanding, knowledge, and working applications of the basics for profitable fashion merchandising. Prerequisite: ACCT 2101. Corequisite: FAME 4444.

FAME 4433 International Apparel Technology (3) An analysis of economic, political, and cultural systems affecting international textile and apparel trade. An emphasis on how technology has influenced importing and exporting in the global fashion marketplace.

FAME 4442 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. Prerequisites: CHEM 1104 or equivalent and FAME 2442. An additional fee is associated with this course.

FAME 4444 Fashion Merchandising (3) Principles and practices of fashion manufacturing and merchandising. Prerequisites: FAME 3415, MKT 3410. Corequisite: FAME 4430.

FAME 4445 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. Prerequisites: senior standing. An additional fee is associated with this course.

FAME 4450 Special Problems in Textiles and Clothing (2-3) Recent trends. Group and individual problems which will include reports, discussions, bibliographies, research, and experiments. *May be repeated for a maximum of 6 semester hours.* Prerequisite: FAME 2442.

FAME 4490 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. *May be repeated for a maximum of 6 semester hours.* Prerequisite: FAME 2440.

FCSE - Family and Consumer Sciences Education

FCSE 2000 FCS Student Organizations (1) An introduction to Family Careers and Community Leaders of America (FCCLA) student organization, its structure, benefits, and programs available for public schools of Missouri.

FCSE 3120 Family Resource Management (3) Effective and efficient management of family resources to maximize personal and family satisfactions. SP.

FCSE 3710 Foundations of Family Consumer Sciences Education (3) The philosophy of vocational family and consumer sciences education, curriculum development and implementation, department management, career development, and student organization management. Prerequisites: EDFL 2100 and FLDX 2150.

FCSE 4000 Special Projects in Family and Consumer Sciences (1-3) Investigation of contemporary problems and issues in family and consumer services. *May be repeated for a maximum of 6 semester hours.*

FCSE 4150 Special Problems in Family Economics and Management

(2-3) Recent trends. Group and individual problems which will include reports, discussions, bibliographies, research, and experiments. Prerequisite: FCSE 3120.

FCSE 4725 Secondary Field Experience II* (1) Experiences in the secondary school classroom that provide the teacher candidate more advanced involvement in the teaching-learning process. Prerequisites: Admission to Teacher Education Program; should be taken concurrently with student teaching. *Not available for graduate credit.

FCSE 4740 Methods of Teaching Family and Consumer Sciences (3) Prepares student as teacher in family and consumer sciences by assisting in the development of instructional methods and techniques for student-oriented classroom instruction. Prerequisites: Admission to Teacher Education Program and 15 semester hours of family and consumer sciences.

FIN - Finance

In addition to any course prerequisites listed for the courses below, the Harmon College of Business and Professional Studies also enforces a course leveling prerequisite. This means that freshmen (those who have earned 0-29.5 semester hours of college credit) may enroll in 1000 level courses only, sophomores (completed 30-59.5 semester hours) may enroll in 2000 or 1000 level courses, juniors (completed 60-89.5 semester hours) may enroll in 3000, 2000 or 1000 level courses and seniors (all students who have earned 90 semester hours) may enroll in 4000 level courses or below.

FIN 1820 Personal Finance (3) For the student who desires information on managing his/her own personal income. FA, SP.

FIN 2801 Business Statistics I (3) Emphasizes the statistical analysis of business and economic data used in business and how this analysis aids in controlling operations and in making sound business decisions. Prerequisite: MATH 1111 or equivalent. FA, SP, SU.

FIN 3801 Business Statistics II (3) Emphasizes the statistical analysis of business and economic data and how this analysis aids in controlling operations and in making sound business decisions. Prerequisite: FIN 2801. FA, SP, SU.

FIN 3811 Investments (3) An analysis of investment planning, decision-making and problem solving including investment policy statements, portfolio strategies, asset allocation, security selection, and performance monitoring. Not open to students with a major or minor in finance.

FIN 3835 Internship in Finance (1-9) Opportunity for students to gain theoretical knowledge and practical application within a particular field of specialization. *May be repeated with consent of department and internship director.* May be taken for pass/fail credit only. Prerequisites: Admission to the BSBA program, 60 semester hours and overall GPA of 2.5 or above, or consent of internship director. FA, SP, SU.

FIN 3850 Principles of Finance (3) An introduction to corporate financial decision-making, including financial analysis, working capital management, capital budgeting, long-term financing, and international finance. Prerequisites: ACCT 2101 and FIN 2801. FA, SP, SU.

FIN 3861 Financial Management I (3) Organization goals and tools of financial management. Analysis of case materials illustrating problems encountered by firms of various sizes and operating characteristics. Examination of adjustment of financial policy of business to changing conditions. Prerequisite: FIN 3850, or a declared major in Actuarial Science and Mathematics with completion of MATH 4510. FA, SP.

FIN 3881 Financial Institutions and Markets (3) An analytic study of financial institutions, financial markets, and monetary policy. Prerequisite: FIN 3850 and [ECON 3020 or declared minor in Finance]. FA, SP.

FIN 3891 Security Analysis (3) Classification and analysis of securities, markets, and industries. Formulation of investment policy for institutions and aggressive personal investors. Not available for credit to students who received credit in FIN 3811. Prerequisites: FIN 3801 or concurrently and FIN 3850. FA, SP.

FIN 3893 Credit and Financial Statement Analysis (3) This is an introductory course in analysis of financial statements and on short term credit analysis (i.e. solvency of loans and trade credit) and long term credit analysis (i.e. the characteristics of corporate bonds and the bond markets). Prerequisites: FIN 3801 or concurrently and FIN 3850. Corequisite: FIN 3891. FA, SP.

FIN 4800 Special Projects in Finance* (1-3) Individualized or group

study under the supervision of departmental faculty. *May be repeated for a maximum of 12 semester hours.* Prerequisite: consent of the instructor. *Not available for graduate credit.

FIN 4803 Principles of Insurance (3) Study of importance of risk in personal matters and various methods of treating risk. Includes property/liability insurance, life/health insurance, and insurance regulation. Prerequisite: FIN 3850 and Admission to the B.S.B.A. program or graduate standing or a declared major in Actuarial Science and Mathematics with completion of MATH 4510.

FIN 4804 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. FA.

FIN 4805 Advanced Personal Financial Planning (3) Develops ability to synthesize financial planning knowledge in order to analyze complex client case scenarios. Emphasis on characteristics of the financial planning profession. Prerequisites: ACCT 3130, FIN 3891, FIN 4803 and FIN 4804; or FIN 4803, FIN 4804, FIN 5840 and Admission to the Master of Arts in Accounting. SP.

FIN 4815 Investment Portfolio Administration (3) Application of security analysis and investment decision concepts to case problems and computer simulated investment situations. Additional readings in selected portfolio management theories. Prerequisite: FIN 3891 and Admission to the B.S.B.A. program or graduate standing. SP.

FIN 4817 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. Prerequisite: FIN 3850 and Admission to the B.S.B.A. program or graduate standing or a declared major in Actuarial Science and Mathematics with completion of MATH 4510.

FIN 4820 International Finance (3) An intensified study of international banking and finance as it relates to international trade and the multinational corporation and the financing of imports and exports. Prerequisite: FIN 3850 and Admission to the B.S.B.A. program or graduate standing. SP.

FIN 4821 Professional Financial Analysis* (3) Develop competences in financial assets, administration procedures and other areas supporting financial analysis. Upon completion students sit for the Chartered Financial Analyst Level I examination. Prerequisites: FIN 4815, FIN 4817, FIN 4820, ACCT 3111 and ACCT 4115. *Not available for graduate credit.

FIN 4830 Directed Readings in Finance (3) Intensive study of significant financial topics.

FIN 4831 Student Managed Investment Fund (3) The course provides students advanced hands-on experience in stock analysis and asset valuation at a professional level, selecting stocks and investing 'real money'. Prerequisites: FIN 3891, FIN 3893, application and consent of the instructor. *May be repeated for a maximum of 6 hours with consent of instructor.* FA, SP, SU.

FIN 4862 Financial Management II* (3) Application of the theories and tools of financial decision making and control to case problems and business problem simulations. Prerequisite: FIN 3861 and Admission to the B.S.B.A. program. *Not available for graduate credit.

FIN 4880 Bank Management (3) Study and analysis of the problems of management of commercial banks with an emphasis on investment and loan portfolios. Prerequisite: FIN 3881 or concurrently or FIN 5830 and Admission to the B.S.B.A. program or graduate standing. FA.

FLDX - Field Experience

FLDX 2150 Introductory Field Experience (1) Introductory experiences in the classroom that provide opportunities for becoming involved with students and professional teachers in the school setting. Includes 30 hours of public school classroom observation. Students must have a background check on file. There is a fee for the background check. Corequisite: EDFL 2100.

FLDX 3550 Practicum in Secondary Instruction (1) Requires a minimum of 50 hours of co-teaching with a public school classroom teacher. Should be taken no earlier than one semester prior to student teaching. Students must have a background check on file. There is a fee for the background check. Prerequisite: Admission to Teacher Education Program. Corequisite: EDFL 3500.

FLDX 4395 Student Teaching in Special Education I* (5, 6, 8) Application for Student Teaching must be made with the Director of Clinical Services and Certification. Requires a directed field experience. Prerequisites: special methods course in special education in one or more certification areas (EDSP 4423, EDSP 4440, or EDSP 4450). Should be taken with FLDX 4396 or FLDX 4468 or FLDX 4495. *Not available for graduate credit.

FLDX 4396 Student Teaching in Special Education II* (5, 6, 8) Requires a directed field experience. Corequisite: FLDX 4395. *Not available for graduate credit.

FLDX 4468 Student Teaching Secondary II* (4-6) To be taken in the Professional Semester. For all secondary majors, all K-12 majors, and K-9 majors in elementary physical education. Prerequisite: admission to Teacher Education Program. Corequisite: FLDX 4495 or FLDX 4595. *Not available for graduate credit.

FLDX 4493 Student Teaching Early Childhood* (6) To be taken in the Professional Semester for early childhood majors and double majors in elementary education. Prerequisites: Admission to Teacher Education Program; cumulative GPA of 2.5; ECEL 4400. Should be taken concurrently with FLDX 4496 or FLDX 4395, depending on the sequence followed. (See description of Professional Education Semester.) *Not available for graduate credit.

FLDX 4495 Student Teaching Elementary I* (3, 5, 6, 8) To be taken in the Professional Semester. For elementary majors, double majors in elementary education and special education, K-12 majors and elementary physical education. Prerequisites: Admission to Teacher Education Program; ECEL 4400. Should be taken concurrently with FLDX 4496 or FLDX 4498 or FLDX 4468 or FLDX 4395, depending on the sequence followed. (See description of Professional Education Semester.) *Not available for graduate credit.

FLDX 4496 Student Teaching Elementary II* (4, 6, 8) To be taken in the Professional Semester. For elementary classroom majors and majors which provide K-12 certification (except speech pathology). Prerequisite: Admission to Teacher Education Program. Corequisite: FLDX 4495 or FLDX 4595. *Not available for graduate credit.

FLDX 4497 Student Teaching Middle School I* (6) To be taken in the Professional Semester. For middle school majors, double majors in elementary education, special education, or secondary education. Prerequisites: Admission to Teacher Education Program; EDFL 4340. Students must have a background check on file. Should be taken concurrently with FLDX 4498 or FLDX 4468 or FLDX 4496 or FLDX 4395, depending on sequence followed. *Not available for graduate credit.

FLDX 4498 Student Teaching Middle School II* (6) To be taken in the Professional Semester. For middle school majors. Prerequisites: Admission to Teacher Education Program; a background check must be on file; should be taken concurrently with FLDX 4497 or FLDX 4495 or FLDX 4595 or FLDX 4395. *Not available for graduate credit.

FLDX 4595 Student Teaching Secondary I* (3, 5-6) To be taken in the Professional Semester. For secondary and modern language majors. Should be taken concurrently with FLDX 4468 or FLDX 4496 or FLDX 4498, depending on the sequence followed. Prerequisites: Admission to Teacher Education Program and EDFL 3500. *Not available for graduate credit.

FLYA - Flight Courses, Airplane

FLYA 1320 Private Flight A (1) Increase student's knowledge and experience to operate aircraft in solo flight and night conditions. Third class medical required before class begins. Approximately 20 flight hours required. An additional fee is associated with this course. FA, SP, SU.

FLYA 1321 Private Flight B (1) Increase the student's knowledge and aeronautical experience to operate an airplane on dual and solo cross-country flights. Third class medical required. Student should plan to fly approximately 20 hours. Prerequisite: FLYA 1320. An additional fee is associated with this course. FA, SP, SU.

FLYA 3310 Commercial Flight A (1) Increase the student's knowledge and aeronautical experience in dual and solo cross country flying in both day and night conditions. Student should plan to fly approximately 20 hours. Prerequisite: Private Pilot Certificate. An additional fee is associated with this course. FA, SP, SU.

FLYA 3311 Commercial Flight B (1) Increase the student's knowledge and aeronautical experience in solo and cross country flying. Student

should plan to fly approximately 20 hours. Prerequisite: FLYA 3310. An additional fee is associated with this course. FA, SP, SU.

FLYA 3312 Commercial Flight C (1) Increase the student's knowledge and aeronautical experience in solo cross country flying. Student should plan to fly approximately 20 hours. Prerequisite: FLYA 3311. An additional fee is associated with this course. FA, SP, SU.

FLYA 3313 Instrument Flight A (1) Increase the student's knowledge and aeronautical experience in maneuvering the aircraft solely by reference to the flight instruments. Includes the use of full and partial panel reference. The student should plan to fly approximately 20 hours. Prerequisite: Private Pilot Certificate. An additional fee is associated with this course. FA, SP, SU.

FLYA 3314 Instrument Flight B (1) Increase the student's knowledge and aeronautical experience in IFR cross-country and emergency procedures. Student should plan to fly approximately 20 hours. Prerequisite: FLYA 3313. An additional fee is associated with this course. FA, SP, SU.

FLYA 3315 Commercial Flight D (1) Increase the student's knowledge and the skill necessary to safely fly a complex aircraft. Student should plan to fly approximately 20 hours. Prerequisite: FLYA 3314. An additional fee is associated with this course. FA, SP, SU.

FLYA 3316 Commercial Flight E (1) Increase the student's knowledge and provide the skill necessary to safely fly a complex aircraft. Additionally, the commercial flight maneuvers are introduced. Student should plan to fly approximately 20 hours. Prerequisite: FLYA 3315. An additional fee is associated with this course. FA, SP, SU.

FLYA 3317 Commercial Flight F (1) Increase the student's knowledge and provide the aeronautical skill necessary for the issuance of the Commercial Pilot Certificate. Student should plan to fly approximately 20 hours. Prerequisite: FLYA 3316. An additional fee is associated with this course. FA, SP, SU.

FLYA 3330 Multi-Engine Certificate (1) Classroom and laboratory instruction to provide aeronautical knowledge and skills for multi-engine pilot certification. Prerequisite: FLYA 3314. An additional fee is associated with this course. FA, SP, SU.

FLYA 3362 Flight Instructor - Instrument (1) Instruction, flight training and practice teaching to obtain the aeronautical skills and knowledge necessary for FAA Certified Flight Instructor, Instruments. Prerequisite: AVIA 3360. An additional fee is associated with this course.

FLYA 3364 Flight Instructor - Multi-Engine (1) Instruction, flight training and practice teaching to obtain the aeronautical skills and knowledge necessary for FAA Certified Flight Instructor, Multi-Engine. Prerequisites: FLYA 3330 and AVIA 3360. An additional fee is associated with this course.

FLYA 3415 Commercial Flight D Multiengine (1) Classroom and laboratory instruction to provide aeronautical knowledge and skills to safely operate a multiengine aircraft. This course will prepare the student for the addition of a multi-engine class onto their Private Pilot Certificate. Prerequisite: FLYA 3312. FA, SP, SU.

FLYA 3416 Commercial Flight E Multiengine (1) Classroom and laboratory instruction to provide aeronautical knowledge and skills for a high performance endorsement. Both IFR and VFR cross-countries will be performed. Prerequisite: FLYA 3415. FA, SP, SU.

FLYA 3417 Commercial Flight F Multiengine (1) Classroom and laboratory instruction to provide aeronautical knowledge and skills to pass the Commercial Pilot AMEL Practical Test. FA, SP, SU. Prerequisite: FLYA 3416. FA, SP, SU.

FLYA 3430 Single Engine Add-On (1) Classroom and laboratory instruction to provide aeronautical knowledge and skills for single-engine addition to an existing commercial pilot certificate. Prerequisite: Commercial Multi-Engine Pilot Certificate. FA, SP, SU.

FLYH - Flight Courses, Helicopter

FLYH 1320 Private Helicopter Flight A Add-on (1) 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 Department of Aviation is committed to serving students in a positive, student-centered learning community that is responsive to emerging needs. Prerequisite: FLYA 1320.

FLYH 1321 Private Helicopter Flight B Add-on (1) Classroom and laboratory instruction to provide aeronautical knowledge and skills for the addition of helicopter category to an existing private pilot certificate.

The student will become familiar with solo, crosscountry and night flight operations and expand the skills learned in the FLYH 1320, reaching the proficiency required for the Private Pilot check ride. Prerequisite: FLYH 1320.

FLYH 3310 Commercial Flight A Helicopter (1) Classroom and laboratory instruction designed to review Private Pilot maneuvers and emergency procedures, as well as local and cross country operations. The student will accumulate a minimum of 13.2 hours of dual instruction, and 2.4 hours of solo flight time. Prerequisite: Private Pilot Helicopter Pilot Certificate.

FLYH 3311 Commercial Flight B Helicopter (1) Classroom and laboratory instruction introducing the aerodynamics and flight characteristics of the 180 degree autorotation, as well as the techniques used to perform running takeoffs and landings. The student will accumulate a minimum of 15.0 hours of dual instruction, and 3.6 hours of solo flight time. Prerequisite: FLYH 3310.

FLYH 3312 Commercial Flight C Helicopter (1) Classroom and laboratory instruction emphasizing the planning an execution of local and cross country solo flights, as well as a review of maximum performance takeoffs, steep approaches, slopes and previous maneuvers. The student will accumulate a minimum of 12.4 hours of dual instruction, and 7.4 hours of solo flight time, 5.0 hours of which the student will be the sole occupant of the aircraft. Prerequisite: FLYH 3311.

FLYH 3315 Commercial Flight D Helicopter (1) Introduction to Instrument Flight through classroom and laboratory instruction. The student will accumulate a total of 15 hours of dual instruction, and 2.4 hours of solo flight time. Flight time includes at least 5 hours of instrument training as required by the applicable FAR's. Dual training will be conducted in simulated instrument conditions, with an emphasis on radio navigation. Prerequisite: FLYH 3312.


FLYH 3316 Commercial Flight E Helicopter (1) Classroom and laboratory instruction focusing on refining Instrument Flight proficiency. An extensive review of previous commercial maneuvers, as well solo flight time in local and cross country operations are also included. The student will accumulate a total of 15.0 hours of dual instruction, and 3.6 hours of solo flight time. Dual instrument training will be conducted in simulated instrument conditions, with an emphasis on radio navigation. Prerequisite: FLYH 3315.

FLYH 3317 Commercial Flight F Helicopter (1) Fulfillment of final requirements for Commercial Helicopter Pilot rating and review of Commercial maneuvers using classroom and laboratory instruction. An introduction to confined area and pinnacle operations are included, as well as night solo cross country operations. Prerequisite: FLYH 3316.

FOOD - Food

FOOD 2320 Sanitation and Safety (1) Sanitation and Safety procedures, ServSafe Certification, and Hazard Analysis & Critical Control Points (HACCP) Certification.

FOOD 2322 Food Preparation (3) Properties and preparation of grains, fruits, vegetables, milk products, protein foods, fats, sugar products, and flour mixtures through demonstrations and laboratory experiences. Prerequisite: grade of C or better in CHEM 1104 or equivalent. An additional fee is associated with this course. FA, SP, SU.

 **FOOD 3332 Quantity Food Production and Service (3)** Principles and standard methods of quality food production, menus, and service in institutions and their application in work experience. Laboratory involves planning and preparing catered events and working at outside foodservices sites. Prerequisites: A grade of C or better in FOOD 2320 and FOOD 2322. FA, SP.

FOOD 3333 Food Systems Management (3) Organization and management in food service areas including administrative responsibilities, qualifications, personnel management, and cost control. Prerequisite: A grade of C or better in ACCT 2100 or ACCT 2101. FA.

FOOD 3334 Advanced Food Systems Management (3) Integrating interpersonal skills with clients, customers, employees, co-workers, and supervisors while serving in the role of "manager" and "leader". Prerequisite: FOOD 3333 with a grade of C or better. SP.

FOOD 4326 Experimental Foods (3) An experimental approach to the study of factors which influence the behavior of foods. Group and individual experiments. Prerequisite: FOOD 2322 with a grade of C or better. An additional fee is associated with this course.

FREN - French

FREN 1201 Elementary French I (3) Fundamental principles of French pronunciation, the building of basic vocabulary of words and expressions, studies in structure, oral work, and reading selections. Not open to native speakers or students who have had three years of high school French without the permission of the department chair.

FREN 1202 Elementary French II (3) A continuation of French I. Increased attention to grammar. Not open to native speakers or students who have had four years of high school French without the permission of the department chair. Prerequisite: FREN 1201.

FREN 2201 Intermediate French I (3) Reading, conversation, vocabulary, and idiom drill. Prerequisite: FREN 1202.

FREN 2202 Intermediate French II (3) Continuing development of the ability to use the language on the intermediate level. Prerequisite: FREN 2201.

FREN 2290 Special Topics in French (1-3) Individual or group work by selected students in carefully chosen fields for intermediate level study. *May be repeated for a maximum of 15 semester hours.* Prerequisites: 6 semester hours of French and consent of the department chair.

FREN 3223 French Composition (3) Review of grammar. Intensive practice in composition with increased attention to stylistics. Prerequisite: FREN 2202.

FREN 3243 French Conversation (3) Provides intensive drill in conversational language using culture-based materials. Prerequisite: FREN 2201.

FREN 3261 French Civilization and Literature I (3) From the origins to the eighteenth century. Prerequisite: FREN 2202.

FREN 3262 French Civilization and Literature II (3) From the eighteenth century to 1945. Prerequisite: FREN 2202.

FREN 4223 Advanced French Composition* (3) Oral and written composition, review of more difficult grammatical construction and idioms. Prerequisite: FREN 3223. *Not available for graduate credit.

FREN 4243 Advanced French Grammar and Conversation* (3) Study and practice of oral advanced French conversational patterns. Review of more difficult grammatical construction and idioms. Prerequisite: FREN 3243. *Not available for graduate credit.

FREN 4263 French Phonetics* (3) The sound system of the French language: analysis of problems encountered by a native English speaker in learning spoken French. Prerequisite: FREN 3243. *Not available for graduate credit.

FREN 4264 Commercial French* (3) French commercial terminology, stressing the difference between French and American forms and practices. Prerequisite: FREN 3223. *Not available for graduate credit.

FREN 4265 The Contemporary French-Speaking World* (3) An overview of contemporary France and other French-speaking nations. Prerequisite: FREN 3261 or FREN 3262. *Not available for graduate credit.

FREN 4286 French Literature of the Nineteenth Century* (3) Romanticism, realism, and naturalism. Analysis of texts and literary theories. Prerequisite: FREN 3223. *Not available for graduate credit.

FREN 4287 French Literature of the Twentieth Century* (3) Symbolism, surrealism, and existentialism in prose, poetry and theatre. Prerequisite: FREN 3223. *Not available for graduate credit.

FREN 4288 French Translation* (3) Commercial and technical translation from French into English and English into French. Prerequisite: FREN 3223. *Not available for graduate credit.

FREN 4289 Cinema of the French-Speaking World* (3) A survey of films from the French-speaking world with emphasis on the cultural contexts in which the films are produced and viewed. Prerequisite: FREN 3223. *Not available for graduate credit.

FREN 4290 Special Topics in French* (1-3) Individual or group work by selected students in carefully chosen fields for advanced study. *May be repeated for a maximum of 15 semester hours.* Prerequisite: 18 semester hours of French and consent of department chair. *Not available for graduate credit.

GEOG - Geography

GEOG 1114 Weather and Climate (4: 1 lecture, 3 lab) Principles and theories of weather, climate, and other atmospheric phenomena. Included is the study of energy exchanges, winds, cloud types, precipitation forms, severe weather, generation of hurricanes, tornadoes, and mid-latitude

storms, pollution, climate change and the cultural implications of weather and climate. Due to the quantitative nature of the labs, college level mathematics is recommended.

GEOG 2100 Physical Geography (3) A survey that investigates global climates, soils, vegetation, and landforms and the causes, effects, and interactions among these elements to create unique physical environments.

GEOG 2101 Introduction to Sustainability (3) Exploring concepts and principles of environmental, social, cultural and economic sustainability; analyzing the making of sustainable places.

GEOG 2211 Geography of North America (3) Physical and cultural features of the United States and Canada, based on regional concepts.

GEOG 2212 World Geography (3) A survey of the world's major regions, examining their unique peoples, cultures, economies, and physical environments.

GEOG 2246 Economic Geography (3) Influence of geographic factors upon economic life, including such topics as natural resources and the relations of geographic factors to industrial and commercial development.

GEOG 2281 Map Interpretation (3) A survey of the problems encountered in reading maps. Emphasis is on the kinds of information that can be presented on maps, the kinds of symbols used, and limitations of maps.

GEOG 2300 Acquiring and Managing Spatial Information (2) Introduction to acquiring and managing spatial information and how geospatial technologies (such as geographic information systems (GIS), global positioning satellites (GPS), and Remote Sensing) are used to understand human and environmental interactions.

GEOG 3101 Practicing Sustainability (3) A critical evaluation of individual and community practices within local/global frameworks of environmental, social, cultural, and economic sustainability, using ethical reasoning, civic principles, and cultural values.

GEOG 3200 Geography of Europe (3) A systematic and regional approach to Europe involving the description and analysis of its major regions, political units, cultural diversity, and contemporary issues and problems.

GEOG 3201 The Cultural Landscape (3) A survey of fundamental human needs, beliefs, and activities that have molded the varied human landscapes of the world. Emphasis on the identification, description, and correlation of spatial variations of population, land use, and social and economic activities.

GEOG 3225 Geography of Latin America (3) South and Central America, including Mexico and the Caribbean, with analysis of the various physical environments, cultures, economies, and contemporary issues.

GEOG 3270 Research Methods in Geography (3) An overview of and training in methods of geographic data selection, collection, and analysis. Prerequisite: GEOG 2212 or GEOG 3201 or permission of instructor.

GEOG 3275 Climatology (3) Considers on a fundamental basis the physics of the atmosphere, hydrosphere, and lithosphere requisite to an understanding of the cultural implications of climate.

GEOG 3310 Geography of Africa (3) Historic and modern significance of Africa; description and delimitation of the major natural regions; and the dominant native cultures.

GEOG 3314 Geography of North Africa/Southwest Asia (3) Regional study of North Africa/Southwest Asia (Middle East) examining the spatial aspects of the realm's physical, cultural, and political geography. Covers countries from Morocco to Iran.

GEOG 4201 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: GEOG 2212 or EASC 1004 or consent of instructor.


GEOG 4205 Advanced Cartography (3) Implementation of mapping software, map design, problems and opportunities associated with computer mapping. Content includes obtaining data in a computer context (e.g., Cyberspace). Prerequisite: GEOG 4201 or equivalent or consent of instructor.

GEOG 4210 Remote Sensing and Image Interpretation (3) Use of electromagnetic spectrum to obtain information on our environment. Emphasis includes visible spectrum (air photography), thermography, radar, and satellite imagery. Prerequisite: GEOG 2212 or EASC 1004 or consent of instructor.

GEOG 4220 Geographic Information Systems I (3) Automated

procedures for storage, analysis, and display of spatial information. Data bases, procurement of spatial information, data manipulation and display techniques, software systems and management issues.

GEOG 4221 Geographic Information Systems II (3) Advanced aspects of spatial analysis and modeling and programming. Emphasis on research and planning applications. Prerequisite: GEOG 4220 or consent of instructor.

 **GEOG 4230 Geography of Asia (3)** A systematic and regional approach to the several Asian landscapes. Emphasis is on physical geography and cultural regions.

GEOG 4235 Geography of the Former Soviet Union (3) A regional geography of the F.S.U. The relationship of rigorous physical environment to national problems.

GEOG 4240 Geography of Missouri (3) A description and analysis of the topical and regional geography of Missouri.

GEOG 4251 Special Projects in Geography (1-6) Study, interpretation, and discussion of special topics and problems in geography. *May be repeated for a maximum of 6 semester hours.*

GEOG 4252 Internship (1-6) Practical professional experience in an employing agency coupled with related assignments intended to integrate theory and practice and build college-level knowledge and skills. Prerequisite: Instructor consent.

GEOG 4260 Historical Geography of the United States (3) Relationship of changing geography to physical environment and developing technology in the United States.

GEOG 4265 Urban Geography (3) Location of cities as related to other geographic phenomena. Urban units are analyzed with respect to general location theory.

GEOG 4270 World Political Geography (3) The historical development of the political organization of area. Theoretical aspects of political geography are emphasized.

GEOG 4275 Special Topics in Geography (1-3) Directed individual or group research of predetermined problems in geography for more intensive study. *May be repeated for a maximum of 3 semester hours.*

GEOG 4280 Natural Disasters (3) This course is designed to examine the geography, natural causes, and human consequences of a variety of natural disasters including a focus on how human behavior exacerbates those consequences.

 **GEOG 4291 Conservation of Natural Resources (3)** Problems of availability, production, exploitation, appraisal, distribution, and renewability of natural resources.

GER - German

GER 1301 Elementary German I (3) Fundamental principles of German pronunciation, building a basic vocabulary of German words and idiomatic expressions, oral work, and reading simple selections. Not open to native speakers or students who have had three years of high school German without the permission of the department chair.

GER 1302 Elementary German II (3) A continuation of German I. Increased attention to grammar. Not open to native speakers or students who have had four years of high school German without the permission of the department chair. Prerequisite: GER 1301.

GER 2301 Intermediate German (3) Vocabulary, conversation, intensive grammar practice. Prerequisite: Acceptable proficiency as demonstrated by adequate high school course work in German or by departmental approval.

GER 2302 Intermediate German II (3) Continuing development of the ability to use the language on the intermediate level, with more advanced. Prerequisite: GER 2301 or departmental approval.

GER 2303 German Conversation I (3) Conversation German using culturally based materials, emphasizing the four language skills (speaking, listening, writing and reading). Prerequisite: GER 2302 or departmental approval.

GER 2390 Special Topics in German (1-3) Individual or group work by selected students in carefully chosen fields for intermediate level study. *May be repeated for a maximum of 15 semester hours.* Prerequisites: 6 semester hours of German and consent of the department chair.

GER 3301 Advanced German Readings (3) Overview of contemporary literature in Germany, Austria, and Switzerland. Selected short stories, poems, plays, fairytales are read and discussed. Prerequisite: GER 2301 or departmental approval.

GER 3302 German Composition and Grammar (3) Advanced grammar including the passive voice and the subjunctive mood. Written composition will emphasize German word-order and idiomatic skills. Prerequisite: GER 2302 or departmental approval.

GER 3303 German Conversation II (3) Advanced oral practice in everyday German, discussion, idiomatic usage, listening comprehension and speaking. Prerequisite: GER 2303 or departmental approval.

GER 3323 Contemporary Society in German-Speaking Countries (3) An exploration of contemporary political, economic and societal issues affecting German-speaking cultures with emphasis on further developing language skills through discussions and written assignments. *May be repeated for a maximum of 6 semester hours.* Prerequisite: GER 2302 or departmental approval.

GER 3361 German Civilization & Literature I (3) A survey of German history, culture and literature before 1871. Prerequisite: GER 2302 or departmental approval.

GER 3362 German Civilization and Literature (3) A review of German history starting from 1871, including the Weimar Republic. Prerequisite: GER 2302 or departmental approval.

GER 3365 Culture and Issues in German-Speaking Countries (3) Focused exploration of topics in the culture and intellectual history of German-speaking countries. *May be repeated for a maximum of 6 semester hours.* Prerequisite: GER 2302 or departmental approval.

GER 4301 German Cinema (3) A survey of films from various German-speaking countries, with an emphasis on the cultural contexts in which the films are produced and viewed. Prerequisite: 3 hours of any 3000-level German class, or departmental approval.

GER 4302 German Composition and Grammar II* (3) Advanced composition will emphasize German word-order, style and idioms. Prerequisite: GER 3302 or departmental approval. *Not available for graduate credit.

GER 4350 Business German* (3) Enhances linguistic and cultural knowledge of German for business, and will be conducted primarily in German. Prerequisite: 3 hours of any 3000-level German course. *Not available for graduate credit.

GER 4380 Masterpieces in German Literature* (3) Thematic survey of German literature. Prerequisite: 3 hours of any 3000-level German course or departmental approval. *Not available for graduate credit.

GER 4390 Special Topics in German* (1-3) Individual or group work by selected students in carefully chosen fields for advanced study. *May be repeated for a maximum of 15 semester hours.* Prerequisite: 18 semester hours of German and consent of department chair. *Not available for graduate credit.

GISL - Government, International Studies, and Languages

GISL 4244 Cross-Cultural Cinema* (3) This course uses academic literature and related movies to examine topics relating to culture, social justice, migration, and globalization. *Not available for graduate credit.

GRAP - Graphic Technologies

GRAP 1000 Orientation to Graphic Technologies (1) Orientation to the philosophy, development, and current trends in the professional preparation for careers in graphic technologies, including design, printing, publishing, packaging and web media.

GRAP 1010 Fundamentals of Graphic Processes (3: 1 lecture, 2 lab) Digital pre-press, printing production and post-press processes, materials and equipment. Laboratory experiences support lecture/theory content. An additional fee is associated with this course.

GRAP 1500 Technical Problems in Graphics (1-3) Individual or group work on introductory level technical problems in graphics. Provide exploration of content not available through normal course offerings. *May be repeated for a maximum of 6 hours.* Prerequisite: written contract/proposal with objectives and departmental consent.

GRAP 1700 Introduction to Packaging (3) An overall view and understanding of packaging development and innovation, including the structure and decoration of assorted paper, paperboard, plastic, glass and metal packaging, and packaging systems and their role in society.

GRAP 2030 Pre-Media Applications - Adobe Illustrator (3) Applied

experiences in design and production of vector graphic files using Adobe Illustrator which meet current industry standards. Prerequisite: GRAP 1010. An additional fee is associated with this course.

GRAP 2031 Pre-Media Applications - Adobe Photoshop (3) Applied experiences in creation and manipulation of digital images (raster graphic files) using Adobe Photoshop which meet current industry standards. Prerequisite: GRAP 1010. An additional fee is associated with this course.

GRAP 2032 Pre-Media Applications - Adobe InDesign (3) Applied experiences in design and creation of page layout files using Adobe InDesign which meet current industry standards. An additional fee is associated with this course. Prerequisites: GRAP 2030 and GRAP 2031. An additional fee is associated with this course.

GRAP 2035 Digital Workflow Applications (3: 1.5 lecture, 1.5 lab) Theory and practice in digital prepress workflow software applications. Sheefed and web imposition methods, preflighting, proofing, PDF files, offset plate technologies, screening methods, trapping, and raster image processing. Prerequisite: GRAP 1010. An additional fee is associated with this course.

GRAP 2610 Principles of Web Media (3) Selection, organization, and production of materials for web media. Introductory experiences creating web pages and interactive presentations for business, industry, and education. An additional fee is associated with this course.

GRAP 2620 Web Media Applications (3) Web media experiences including implementation of visual and sound applied to the www and other technologies. These applications include still and motion imaging and animation. Hands-on experiences supplement lecture. Prerequisite: GRAP 2610.

GRAP 2630 Web Authoring (3) Basics of web page creation with XHTML, and CSS. Students learn to hand-code Web pages with CSS for presentation and page layout and learn to create lists and links (internal, external, links to images, and more) with XHTML. Creating tables is introduced. Web site design is discussed with an emphasis on recommended practices, ethical considerations, and accessibility. An additional fee is associated with this course. Prerequisites: GRAP 2610, GRAP 2620.

GRAP 2670 Web Media Animation (3) Fundamentals of animation theories and practices specializing in digital applications. Planning and storyboarding for types of animation. Hands-on experiences will supplement lecture. Prerequisite: GRAP 2610 and GRAP 2620.

GRAP 3016 Experiences in Graphic Production (1) Supervised work on selected aspects of producing the printed product and/or managing a printing plant. *May be repeated for a maximum of 6 semester hours.* Prerequisite: GRAP 1010 and department consent.

GRAP 3024 Flexographic Processes (3: 2 lecture, 1 lab) Flexographic printing technology from prepress through postpress operations for both wide and narrow web applications. Instruction on rotary letterpress will also be included. Laboratory experiences support lecture/theory content. Prerequisite: GRAP 2030. An additional fee is associated with this course.

GRAP 3030 Digital Output Technologies (3: 2 lecture, 1 lab) Advanced image manipulation techniques as related to color and correction with special techniques for the printing and imaging industry. Prerequisites: GRAP 2030 and GRAP 2031.

GRAP 3034 Lithographic Processes (3: 2 lecture, 1 lab) Lithographic sheet fed and web press operation and maintenance with emphasis on sources of image problems. Solutions for interrelated substrate, ink, and plate problems. In-line finishing and image carrier technology as they relate to quality image transfer. Laboratory experiences support lecture/theory content. Prerequisite: GRAP 1010. An additional fee is associated with this course.

GRAP 3036 High Volume and Publication Production (3: 2 lecture, 1 lab) Offset Lithography from image preparation through finishing with concentration on multi-color and process printing, long-run/high-volume, signature production and publication printing using sheet fed and web printing equipment. Prerequisites: GRAP 3016 and GRAP 3034.

GRAP 3040 Screen and Specialty Printing (3: 2 lecture, 1 lab) Theory and/or applied practice in screen printing, pad printing, water transfer, heat transfer, and dye sublimation printing processes for industrial applications. Prerequisites: GRAP 1010 and GRAP 2030. An additional fee is associated with this course.

GRAP 3043 Finishing and Distribution (3: 2 lecture, 1 lab) Equipment, operations, and principles relative to trimming, binding, folding, shipping/mailing and specialized finishing operations, including scoring,

perforating, die-cutting, embossing and foil stamping. Prerequisite: GRAP 1010. An additional fee is associated with this course.

GRAP 3045 Materials and Methods in Graphic Technologies (3) Properties, specification, pricing and procurement of ink and printing substrates relative to the various printing processes and applications with an emphasis on flexography, lithography, gravure and digital output. Prerequisite: GRAP 1010. An additional fee is associated with this course.

GRAP 3051 Graphic Technologies Management (3) Principles and practical application of management functions as related to the production of printed materials. Instruction includes classroom simulation of management roles. Prerequisites: GRAP 3016 and GRAP 3034. An additional fee is associated with this course.

GRAP 3057 Quality Control for Print Media (3) This course is designed to acquaint the student with quality control and quality assurance as it relates to printing production and digital output. Instruction includes material acceptance, process control, product evaluation, and problem solving techniques used in the management of quality. Prerequisites: GRAP 3034 and GRAP 3051. An additional fee is associated with this course.

GRAP 4014 Advanced Technical Problems in Graphic Arts (1-3) Individual/group work on recent developments and advanced technical concepts. Experimentation and technical exploration of content not available through formal course offerings in the department. By arrangement for qualified students. *May be repeated for a maximum of 6 semester hours.* Prerequisite: written contract/proposal with objectives and written department consent.

GRAP 4038 Color Management (3) Technical aspects of process color reproduction; includes color theory, ink evaluation, densitometry, tone reproduction, printing characteristics, color correction, gray balance, color separation, and proofing. Laboratory experiences support lecture/theory content. Prerequisite: GRAP 3030. An additional fee is associated with this course.

GRAP 4040 Applied Color Management (1) Application of color theory to the measurement and process control of color printing with a concentration on densitometry and colorimetry in order to meet industry production standards. Prerequisite: GRAP 4038.

GRAP 4051 Print Production (3: 3 lecture, 0 lab) Applied experiences in management and technological applications in the production of printed material including prepress, press, and post press operations. Prerequisites: GRAP 2032, GRAP 2035, and GRAP 3051.

GRAP 4053 Production Analysis (3) Analysis and planning of the production of a variety of products for commercial and publication printing. Content includes imposition methods, workflow solutions, and technical problems associated with print production. Prerequisites: GRAP 3034 and GRAP 3045. An additional fee is associated with this course.


GRAP 4055 Estimating and Costing for Print Media (3) Identification of costs relative to materials, operations, and labor utilized in the production of printed matter. Budgeting, forecasting, cost accounting, and budgeted hourly rates. Prerequisite: GRAP 4053. An additional fee is associated with this course.


GRAP 4095 Senior Seminar in Graphic Technologies (1) Professional preparation which integrates team building, problem solving, and analysis of current trends in graphic production. Prerequisite: GRAP 3051. An additional fee is associated with this course.

GRAP 4500 Special Projects in Graphics (1-3) Investigation of contemporary problems and issues in graphics by selected individuals or groups. *May be repeated for a maximum of 6 semester hours.* Prerequisites: written contract/proposal with objectives and written department consent.

HED - Health Education

HED 1010 Introduction to Health Studies (1) This course includes material designed to assist the student in the skillful selection and understanding of an associated, adjunctive, rehabilitative, administrative, or affiliated health-care career.

 **HED 1100 Personal Health (3)** Health issues in today's society with special reference and application to the present and future life of the student. FA, SP.

 **HED 1200 Applied Nutrition for Healthy Living (3)** Explores current knowledge about basic human nutrition, dietary requirements, diet analysis, food safety, and weight management for all ages.

HED 1350 Responding to Emergencies (3) The first aid practice and theory for common emergencies. Students may receive first aid and CPR certification. An additional fee is associated with this course. FA, SP.

HED 3310 Methods in Elementary School Health (2) Curriculum and lesson plan development, basic health concepts, and methodology of teaching elementary health education. FA, SP, SU.

HED 3360 Methods in Secondary School Health (2) Explores the current trends in curriculum development in health education and the legal aspects of school health. Prerequisite: **HEDFL 2240**. FA(E),

HED 4000 Special Projects in Health Education (1-5) Individual or group study of problems in special areas of interest. *May be repeated for a maximum of 6 semester hours.*

HED 4300 Nutrition and Human Performance (3) Nutrition as it applies to athletics, physical exercise, and health. Prerequisites: PE 1800 and PE 2850. FA, SP.

HED 4310 Drugs and Youth (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. FA, SP, SU.

HED 4320 Teaching Sexuality Education in the School (3) Prepares the teacher for course development, instruction and integration of sexuality education into the school curriculum. FA(O).

HED 4330 First Aid and CPR* (1) Skills and principles of first aid and accident prevention in the schools. Students may receive first aid and CPR certification. *Not available for graduate credit. An additional fee is associated with this course. FA, SP, SU.

HED 4350 Advanced First Aid and Emergency Care (3) Emphasizes the essential knowledge and skills needed to develop the functional first aid capabilities required by policemen, firemen, emergency squad and rescue squad members, ambulance attendants, and other special interest groups. Students taking this course may complete requirements for the American Red Cross Advanced First Aid and Emergency Care Certificate.

HED 4360 CPR Instructors Training (1) Procedures, theories, and techniques involved in the teaching of the American Red Cross CPR Modular System course. Students may complete requirements for the Red Cross CPR Modular System Instructor Certificate. Prerequisite: current Red Cross CPR Modular System Certificate.

HED 4370 Human Diseases (3) An overview of the agents of disease, the processes of contagion, and the effects on humans. Prerequisites: PE 2850 or BIOL 3401.

HED 4390 Community Health Education (3) Various types of health programs conducted by private, volunteer, and official agencies are explored. SP, SU.

HED 4400 Health Program Planning and Evaluation (3) This course is designed to provide the student with the skills necessary to assess, develop, implement, and evaluate health programs within a community.

HED 4760 Organization and Administration of the School Health Program (2) The organization and administration of the school health program emphasizing the areas of healthful school living, health services, and health instruction. Prerequisites: HED 3310 or HED 3360.

HIST - History

HIST 1350 History of the United States to 1877 (3) Survey of U.S. history from the age of exploration to 1877.

HIST 1351 History of the United States from 1877 (3) Survey of U.S. history from 1877 to present.

HIST 2400 History of the Early World (3) A survey of ancient and medieval civilizations from earliest times to 1300. Particular emphasis will be placed upon political, economic, social, and religious developments and achievements.

HIST 2401 History of the Early Modern World (3) World civilization from 1300 to 1800. Special emphasis will be given to economic contact and cultural clashes among European, Asian, American, and African civilizations.

HIST 2402 History of the Modern World (3) A survey of modern world civilization since 1800. Special attention will be given to industrialization, democratization, imperialism, global wars, and modernization of the non-western world.

HIST 2410 Introduction to Africana Studies (3) Examines the rise of African world civilizations, with emphasis on the development of complex empires and the influence of African cultures in the Western Hemisphere.

HIST 4300 Missouri History (3) Missouri history from earliest times to the

present.

HIST 4307 American Colonial History 1607-1763 (3) American political, economic, and cultural institutions in the colonial period.

HIST 4309 The African-American in American History (3) Economic, political, and social development of the African-American in the United States.

HIST 4310 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.

HIST 4311 Revolution and Republic (3) American political, economic, and cultural institutions from 1763 to the War of 1812.

HIST 4314 Jacksonian America (3) Cultural, social, political and economic development of the United States from the War of 1812 to 1848.

HIST 4315 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.

HIST 4316 The American Military Experience (3) A military history of the American people from colonial times to the present.

HIST 4317 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.

HIST 4318 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.

HIST 4320 History of the Westward Movement (3) Economic, social, cultural, and political contributions to American development by the Westward Movement.

HIST 4322 Grand Expectations 1945-1980 (3) Examines the domestic and foreign developments of the United States from the end of World War II through the aftermath of Vietnam and Watergate.

HIST 4323 Our Times: America from 1980 to 2008 (3) Examines the domestic and foreign developments of the United States from the ascendancy of Reagan to the advent of global terror.

HIST 4324 Truman and Civil Rights (3) This course analyzes the civil rights record of President Harry S. Truman.

HIST 4325 History of American Diplomacy (3) Foreign relations of the United States with emphasis on the period since 1900.

HIST 4326 Native American History of the United States (3) A survey of relations between Native Americans and Euro-Americans from colonial times to the present.

HIST 4327 African American Women, Gender, and Girlhood (3) This course focuses on the history and development of black women and girls from their African origins to the present.

HIST 4328 History of Flight (3) This course examines manned flight from the eighteenth century to the present, with additional topics covering the basic biological and physical mechanics of flight.

HIST 4330 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.

HIST 4331 The Vietnam Era (3) Vietnam in the pre-French (1880's) era, France in Vietnam until 1954, the gradual U.S. involvement in Vietnam 1954-64, the Vietnam war 1964-73, Vietnam of the post-American involvement era to the present and finally an analysis of the impact of the Vietnam war on American society.

HIST 4340 Public History (3) The course defines public history and its constituents, and it surveys the job experiences of practitioners in the fields of archives, museums, and historic sites.

HIST 4351 Special Projects in American History (1-6) Study, interpretation, and discussion of special topics and problems in American history. *May be repeated for a maximum of 6 semester hours.*

HIST 4402 Ancient Greece (3) A survey of Greek history from the pre-classical Minoan and Mycenaean civilizations, through the classical period, to the Roman conquest.

HIST 4403 Ancient Rome (3) A survey of Roman history from its origins to the decline of the imperial system. Particular emphasis will be placed upon the political, social, and economic developments in the Republic and the factors that led to the fall of the empire.

HIST 4404 Barbarian Europe (3) European history from the fall of the Roman Empire to the formation of new successor states, with emphasis on

interdisciplinary research methods.

HIST 4411 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.

HIST 4412 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.

HIST 4413 The Age of Absolutism and Enlightenment (3) The development and legacy of the European bureaucratic and centralized monarchical state in the context of the Scientific Revolution.

HIST 4414 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.

HIST 4415 Revolutionary Europe (3) A survey of the political, social, economic, and cultural transformation of Europe in a century of revolution, from the *ancien régime* to World War I.

HIST 4416 Europe in Crisis: 1900-1945 (3) Examines the political, diplomatic and strategic trends of the major European crises up to 1945: the Great War, the Great Depression, and World War II.

HIST 4418 War and Modern Society (3) This course will explore the relationship between warfare and society from the advent of gunpowder weaponry to the 21st century.

HIST 4419 Women in Modern Europe (3) Survey of the history of European women's oppression and agency from the Renaissance to the present.

HIST 4422 England to 1689 (3) The history and institutions of England from Anglo-Saxon times to the Glorious Revolution.

HIST 4423 Modern Britain and the Empire (3) Political, economic, and social development of modern England and the empire.

HIST 4431 Modern Germany and the Nazi Experience (3) A political, social, economic and cultural history of Germany from World War I through the post-World War II era with emphasis on the Third Reich.

HIST 4432 The Holocaust (3) Examines the Holocaust within the context of historical anti-Semitism and the chronology of Nazism's rise, World War II, the Final Solution, and the legacy.

HIST 4441 The Rise of Imperial Russia (3) This course will explore the history of Imperial Russia from Kievan Rus' through the end of the reign of Tsar Alexander II.

HIST 4442 Modern Russia and the Soviet Union (3) Russia and its place in world affairs since the eighteenth century.

HIST 4451 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.

HIST 4452 Modern Latin America (3) Latin American history from the independence movement of the eighteenth century to the present.

HIST 4453 History of Mexico (3) A survey of the political, social, economic and cultural history of Mexico from pre-Columbian civilizations to the present.

HIST 4461 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.

HIST 4462 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.

HIST 4463 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.

HIST 4464 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.

HIST 4471 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.

HIST 4472 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.

HIST 4473 History of South Africa (3) This course is a survey of South African History from the pre-1800's to the present.

HIST 4481 Traditional Middle East (3) The history of West Asia and the Eastern Mediterranean from Muhammad to Napoleon, with special emphasis on the rise and expansion of Islam, including its principles, the Arab and Persian empires, and the impact of the Mongols, the Turks, and the Crusades.

HIST 4482 The Modern Middle East (3) The course will focus on western Asia, north Africa, and the Eastern Mediterranean region since the Napoleonic invasion of Egypt, with special emphasis on the decline of the Ottoman Empire, the impact of the great powers, and the effects of nationalism, oil, and the religious dynamic.

HIST 4491 Special Projects in World History (1-6) Study, interpretation, and discussion of special topics and problems in World history. *May be repeated for a maximum of 6 semester hours.*

HIST 4500 Senior Capstone in History* (3) Examines a selected topic in American or World history to understand how interpretations of the past have been constructed to explain the present. Prerequisite: SOSC 3010.

*Not available for graduate credit.

HM - Hospitality Management

HM 1800 Introduction to Hospitality (3) This course introduces the students to the scope of the hospitality industry, its organizational structure and operations. This includes its history and development, various sectors, current ventures and career opportunities. An important goal is for students to rigorously assess their career interests and to map a detailed career plan for the first few years of their professional lives. FA.

HM 2830 Hospitality Management Case Analysis (1) Class utilizes team-based learning through readiness assessment tests and case analysis to cover topics of the hospitality industry including: written, verbal, coaching, and management communication skills; personal and professional money management practices; sustainable decision making; and human resource management skills. One-credit course required over three semesters for three credit hours of undergraduate credit. *May be repeated for a maximum of 6 semester hours.* FA, SP.

HM 3800 Lodging Management (3) The study of the operation and interaction of departments within the rooms division of a hotel with particular emphasis on front office, housekeeping and security. Focus is placed on the integration of yield management techniques, forecasting, overbooking, group decisions, managing guest accounts and internal service management challenges. Prerequisite: Sophomore standing. FA.

HM 3810 Internship in Hotel and Restaurant Management (3) The purpose of this course is to introduce students to the hospitality industry and allow for investigating different career paths. The internship advances the concepts of customer service and inter-personal skills.

HM 3825 Events Management (3) Theoretical and practical foundations for effective twenty-first century event management including research, design, planning, coordinating, and evaluating of professional events. It will be experiential, hands on learning class. Class will discuss definitions, categories of event planning, and current issues/trends of event management. Students will be assigned event projects in the semester which they will be expected to participate in the planning and execution and attend the event. Prerequisite: Junior standing.

HM 3844 Restaurant Operations (3) Front-of-house operational management skills are developed including service, labor management, customer expectations, and money management in-class and practice using restaurant simulation software. Back-of-house skills covered include production management, sanitation, safety, supervision, and equipment management. Food and beverage marketing and management are covered and service standards are demonstrated in on-campus catering events. Prerequisites: ServSafe Certification and either FOOD 3333 or ACCT 2101. SP.

HM 3845 Hospitality Operations Analysis* (3) Uniform System of Accounts for Lodging and Restaurants are utilized in analysis of industry financial reports and development of decision processes for future operations. Restaurant and lodging forecasting, revenue management, labor management, production management, and financial statements are created and interpreted. Decision based franchise project is presented and completed. Prerequisite: ACCT 2101. *Not available for graduate credit. FA.

HM 3880 Internship (3) Provides industry experience for students in the BSBA in Hospitality Management. Appropriate internship sites can include hotels, resorts, restaurants, theme parks, Convention & Visitor's Bureau and other businesses in the Hospitality & Tourism industry.

HM 4000 Special Projects in Hospitality Management (1-3) Investigation of current problems and issues in hospitality management. *May be repeated for a maximum of 9 semester hours.* Prerequisite: Consent of instructor.

HM 4810 Internship (5) Hospitality businesses provide undergraduate students who have demonstrated a high level of commitment to the hospitality industry through their academic performance and practical experience with the opportunity to grow their careers before graduation. These management internship experiences allow students to work in properties in a few departments to gain valuable experience with industry leaders. Students have an opportunity to experience the culture of the organization which can help them determine if it could be the right career fit for them upon graduation. Students are expected to take the initiative to be immersed in the operation of a hotel or restaurant departments, understand the day-to-day operations and managerial functions. Prerequisites: HM 3810 and junior or senior standing. FA, SP, SU.

HM 4820 Sustainability and Operations Management (3) Personal definitions and ability to impact an operation and society are developed while understanding the tiers of sustainability: economic, social, and environment. Proficiencies in waste and efficiency management are developed focusing on equipment, design, labor, and marketing. Students work with industry on client projects and present a completed research assignment. Prerequisite: ACCT 2101. FA, SP.

HM 4830 Tourism Marketing (3) This course highlights the conceptual, descriptive and strategic issues involved in identifying and capturing tourism and hospitality marketing opportunities. It focuses on major marketing decisions that tourism and hospitality managers face in generating and sustaining demand for their products and services. Students examine the guidelines for formulating destination-oriented marketing goals and strategies; covers the trend issues and challenges influencing destination marketing and the elements that combine to create a marketing plan. Prerequisite: HM 1800 and junior or senior standing.

HM 4840 Legal Aspects of Hotel and Restaurant Management (3) Students will recognize, analyze, and evaluate legal issues and articulate appropriate decisions based on workplace situations. Contract, dramshop, property, employee, liability law, and legal responsibilities for guests are defined and discussed utilizing legal statutes and judicial opinions. Verbal communication skills are developed through debate and forensic style case studies and assignments. Prerequisite: HRM 3920. SP.

HM 4845 Senior Seminar* (3) Emphasizes the feasibility, development, design, management, operation and marketing of a hotel/resort at a tourism destination. Students are introduced to the challenges and opportunities inherent in the development and planning of hospitality facilities, specifically hotels and restaurants. Course components include the project development sequence, common industry practice, conceptual and space planning, architectural design criteria, determining construction costs and required start up costs. Prerequisites: senior standing. *Not available for graduate credit. SP.

HONR - Honors

HONR 3000 Honors Colloquium (2) An interdisciplinary course taught by selected faculty. Content varies from semester to semester. Required of and open only to students in The Honors College. *May be repeated for a maximum of 6 semester hours.* Prerequisite: Junior standing or approval of the Dean of The Honors College.

HONR 4000 Honors Project (4) A capstone research or creative project pursued under the supervision of a UCM faculty mento selected by the student. Required of all Honors College students. Prerequisite: senior standing or approval of the Dean of The Honors College.

HRM - Human Resource Management

In addition to any course prerequisites listed for the courses below, the Harmon College of Business and Professional Studies also enforces a course leveling prerequisite. This means that freshmen (those who have earned 0-29.5 semester hours of college credit) may enroll in 1000 level courses only, sophomores (completed 30-59.5 semester hours) may enroll in 2000 or 1000 level courses, juniors (completed 60-89.5 semester

hours) may enroll in 3000, 2000 or 1000 level courses and seniors (all students who have earned 90 semester hours) may enroll in 4000 level courses or below.

HRM 3920 Human Resource Management (3) Issues related to the effective management of people within organizations; pertinent to all disciplines. Emphasis placed on practical applications using experiential activities to develop student's managerial skills. Prerequisite: MGT 3315 or concurrently; or MGT 3320 or concurrently; or INDM 4210 or concurrently. FA, SP, SU.

HRM 4930 Compensation and Benefits (3) Concepts, models, theories, and application of processes and systems of employee compensation and benefits within organizations. Prerequisite: HRM 3920. FA.

HRM 4960 Employment and Development (3) Concepts, models, theories, and application of human resource planning, employment, and training and development. Prerequisite: HRM 3920.

HRM 4990 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. Prerequisite: HRM 3920

IEP - Intensive English Program

See description of IEP curriculum under English Language Center.

IGEN - Integrative Studies General

To register for an IGEN course, a student must have 60 earned hours.

IGEN 3116 Creative Problem Solving (3) A broad approach to formal techniques in creative problem solving applicable to any field of endeavor and interest. An additional fee is assessed for this course.

IGEN 3224 Critical Thinking (3) Provides insight into and application of the skills needed to think critically about interpersonal and media messages, as well as analyze information. FA, SP.

IGEN 3896 Assessing Global Change for the Information Age (3) Challenges students to assess present and future trends, evaluate what is desirable, and reflect on their responsibility for the quality of life in the information age.

IGEN 4224 Communication, Science and Technology (3) Students will focus on the interactions among science, technology and society by examining scientific communication and scientific and technological controversies. Prerequisite: completion of General Education Knowledge Area II. AN.

IGEN 4236 Science and Religion: From Conflict to Dialogue* (3) A clarification of the historical and philosophical issues that arise in the relationship between science and religion. The course emphasizes a variety of interpretive viewpoints. *Not available for graduate credit.

INDM - Industrial Management

INDM 4010 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. Prerequisites: junior or senior standing for undergraduate credit.

INDM 4015 Legal Aspects of Industry (3) Coverage of legal aspects of industry. Focus on the legal system, sources of law, and types of law affecting the manufacturing and/or construction industry.

INDM 4210 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.

INDM 4220 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).

INDM 4230 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. Prerequisite: background statistics course.

INDM 4240 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.

INDM 4250 Project Management (3) This course is 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.

INDM 4260 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.

INDM 4280 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. Prerequisite: **MATH 1111** or consent of instructor.

INST - Instructional Technology

INST 4100 Integrating Technology into Teaching (3) Advanced preparation in how to integrate technology into teaching including the latest trends and pedagogical strategies. ONL.

INST 4005 Special Projects in Instructional Technology (1-5) Individual or group study of problems in special areas of interest. *May be repeated for a maximum of 5 semester hours.*

INST 4300 Principles of Online Instruction (3) Introduces students to the resources, techniques, and practices of teaching and learning in the PK-12 online environment. ONL.

INST 4310 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. ONL.

INST 4330 Technology Troubleshooting for Educators (2) Provides pre-service and in-service educators with the knowledge and skill to operate, maintain and troubleshoot (service) the various hardware devices and software found in schools.

INST 4400 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. ONL.

INST 4920 Practicum in Instructional Technology (1) Participation in field experiences that provide practice with teaching methodology applicable specifically to the problems and procedures encountered when working with instructional technology. *May be repeated for a maximum of 4 semester hours.* Prerequisites: **INST 4400**. ONL.

IS - International Studies

IS 1000 Introduction to International Studies (3) An interdisciplinary course highlighting the interconnectedness between the individual, communities, and the global system. Theories of international relations, economics, and law are applied to topics.

IS 3900 Special Projects in International Studies (3) Study, interpretation, and discussion of special topics and problems in international studies.

IS 4900 Directed Readings in International Studies* (3) Readings focused on a specific area of international studies or a current issue that is of particular interest to the student. *Not available for graduate credit.

IS 4950 Senior Seminar* (3) Examination of current issues in international studies integrated with students' research interests, foreign language proficiencies, and international experiences. *Not available for graduate credit.

ISP - International Study Abroad

ISP 4000 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 represent those credits completed by the

student and transferred back to UCM. *May be repeated for a total of 18 semester hours in one semester.* Prerequisite: approval of the Director of the International Center.

LIB - Library

LIB 1010 Truth, Lies and Information Management (2) In an information-saturated society, this class prepares students to locate, evaluate, and synthesize information for academic, professional and personal pursuits by developing a critical awareness of sources and search strategies.

LIS - Library Science and Information Services

LIS 1600 University Library and Research Skills (2) Freshman-level course introduces traditional and computer-based resources and services available in academic libraries and strategies for locating, evaluating and using information. FA, SP, SU. ONL.

LIS 4000 Special Projects in Library Science (1-5) Individual or group study of problems in special areas of interest. *May be repeated for a maximum of 5 semester hours.* FA, SP, SU.

LIS 4300 Introduction to the Internet Via Internet (3) An examination and evaluation of the structure and function of the Internet and its use as a tool for communication, collaboration, and commerce. FA, SU. OLO.

LIS 4320 Creating Web-Based Internet Sources (3) An in-depth examination and evaluation of theoretical and practical principles, along with the development of skills necessary to create and provide resources on the Internet. FA, SP, SU. OLO.

LIS 4600 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. Prerequisite: Junior standing.

MATH - Mathematics

A student may enroll in a course offered by the Department of Mathematics and Computer Science only if a grade of C or better is earned in each of the course's prerequisites taken.

MATH 1101 Intermediate Algebra (3) The properties of real numbers, polynomials, rational exponents, radicals, functions, and systems of equations. Prerequisite: high school credit in basic algebra or **AE 1030**. Placement according to University policy applies.

MATH 1111 College Algebra (3) Continuation of algebra including such topics as linear and quadratic equations, linear and quadratic inequalities, second degree relations and functions, systems of equations and inequalities, and exponential and logarithmic functions. Prerequisite: high school program including advanced algebra or **MATH 1101**. Placement according to University policy applies.

MATH 1112 College Trigonometry (2) Elementary trigonometric functions, identities, trigonometric equations, multiple angle formulas, and general triangle solutions. Prerequisite: a high school program including advanced algebra and one unit of geometry; or **MATH 1111** or concurrently.

MATH 1131 Applied Calculus (3) The fundamental skills and concepts of calculus with an emphasis on applications in engineering, science and technology. Prerequisite: a high school program including one unit of advanced algebra and one unit of geometry, or **MATH 1111**. Placement according to University policy applies.

MATH 1150 Pre-Calculus Mathematics (4) Pre-calculus concepts in algebra and trigonometry for the student with an above average preparation in high school mathematics. Prerequisite: a high school program including advanced algebra, one unit of geometry, and one-half unit of trigonometry. Placement according to University policy applies. FA, SP.

MATH 1151 Calculus and Analytic Geometry I (5) A combined course in calculus and analytic geometry. Prerequisite: a high school program

including advanced algebra, one unit of geometry, and one-half unit of trigonometry; or MATH 1112 or \mathbb{E} MATH 1150. FA, SP. Placement according to University policy applies.

MATH 1152 Calculus and Analytic Geometry II (5) A continuation of \mathbb{E} MATH 1151. Prerequisite: \mathbb{E} MATH 1151. FA, SP.

\mathbb{E} MATH 1215 The Mathematics of Decision Making (3) A conceptual mathematical introduction to escalation modeling, game-theoretic modeling, international conflicts, voting systems, apportionment, and political power. Prerequisite: Advanced High School algebra or MATH 1101. Placement ACT Math score 20 or above or MATH 1101.

\mathbb{E} MATH 1300 Basic Statistics (3) A study of elementary statistics. Topics include descriptive statistics, elementary probability theory, inferential statistics, and tests of statistical hypotheses. Prerequisite: high school algebra or MATH 1101. Placement according to University policy applies.

\mathbb{E} MATH 1620 Contemporary Mathematics (3) A study of mathematical concepts from various branches of mathematics including an introduction to statistics, linear programming, set theory, logic, and probability. Prerequisite: a high school program including advanced algebra or MATH 1101 or higher MATH course. Placement according to University policy applies.

\mathbb{E} MATH 1820 Introduction to Mathematical Modeling (3) This course introduces mathematical modeling, based on the use of elementary functions to describe and explore real-world data and phenomena. Prerequisite: High school algebra, MATH 1101, or higher MATH course. Placement according to university policy applies.

MATH 1850 Orientation Seminar (0.5) Five 90-minute seminars will acquaint students majoring in secondary mathematics education with courses, portfolio assessment, interview process, standardized tests and professional organizations.

MATH 2000 Mathematical Problem Solving (0.5) A participation-based seminar in mathematical problem solving as preparation for participation in various regional and national mathematics competitions Prerequisite: MATH 1152.

MATH 2153 Calculus and Analytic Geometry III (3) A continuation of MATH 1152. Prerequisite: MATH 1152. FA, SP.

MATH 2221 Foundations of Geometry (3) An emphasis on the techniques of proof and constructions in geometry, the properties of a set of postulates, a brief review of Euclidean geometry, and the study of other geometries. Prerequisite: One unit of high school geometry. FA.

MATH 2410 Discrete Mathematics (3) Logic and argumentation; mathematical proof techniques; sets, relations and mappings; counting and the natural numbers; modular arithmetic; permutations, combinations, and discrete probabilities; etc. Prerequisite: \mathbb{E} MATH 1150 or \mathbb{E} MATH 1151 or concurrent enrollment in either. FA, SP.

MATH 2821 Elements of Algebra (3) Basic concepts of algebra adapted to the needs of elementary teachers. Prerequisite: \mathbb{E} MATH 1620. FA.

MATH 2822 Elements of Geometry (3) Concepts and relationships of geometry adapted to the needs of elementary/middle school teachers. Prerequisite: \mathbb{E} MATH 1620.

MATH 2823 Introduction to Infinite Processes (5) Transition from the concepts of elementary analysis to the infinite processes which form the foundation for the calculus. Open only to elementary and middle school/junior high education majors in the B.S. in Ed. degree. Prerequisites: MATH 2821 and MATH 2822. FA.

MATH 2861 Advanced Perspectives on High School Mathematics (3) Investigation of the real number system as studied in high school mathematics from an advanced perspective. Prerequisite: \mathbb{E} MATH 1151. SP.

MATH 2862 Advanced Perspective on Secondary Geometry and Trigonometry (3) Investigation of high school geometry and trigonometry from an advanced standpoint. Prerequisites: \mathbb{E} MATH 1151 and MATH 2221.

MATH 3151 Differential Equations (3) Techniques of solving ordinary differential equations with applications to physics and engineering. Prerequisite: MATH 2153. SP.

MATH 3221 College Geometry (3) Modern Euclidean geometry, geometric transformations, advanced Euclidean constructions, constructible numbers, extension fields and the three impossible problems of antiquity. Prerequisite: MATH 2221. SP.

MATH 3311 Introduction to Mathematical Statistics (3) A study of probability and statistical theory along with their connections. Prerequisite:

\mathbb{E} MATH 1131 or \mathbb{E} MATH 1151.

MATH 3710 Linear Algebra (3) An introduction to matrices, determinants, vector spaces and linear transformations. Prerequisite: MATH 2410 or CS 2400. FA, SP.

\mathbb{E} MATH 3800 **Introduction to Teaching Elementary and Middle School Mathematics (2)** A six-week course focusing on the concepts and methods of teaching mathematics in both elementary and middle school. Prerequisite: \mathbb{E} MATH 1620.

\mathbb{E} MATH 3801 **Concepts and Methods in Elementary School Mathematics (3)** A nine-week course focusing on the concepts and methods of teaching mathematics in grades K-5. Corequisite: MATH 3800 or MATH 3810.

MATH 3802 Concepts and Methods in Middle School Mathematics (3) A nine-week course focusing on the concepts and methods of teaching mathematics in grades 5-9. Prerequisite: MATH 3800.

MATH 3810 Mathematics for the Young Learner (2) Part of the integrated content methods block for the young learner. Course examines the teaching and learning of mathematics in grades 1-3. Prerequisite: \mathbb{E} MATH 1620.

\mathbb{E} MATH 3812 **Mathematics in the Integrated Middle School Curriculum (3)** An emphasis on integrating mathematics with other subject areas at the middle school level. A focus on relationships between mathematics and other subject areas together with investigation of relevant applications of mathematics outside the classroom. Prerequisites: \mathbb{E} MATH 1620 and completion of 9 semester hours in minor teaching field.

MATH 3820 Mathematics for the Intermediate Learner (2) Part of the integrated content methods block for the intermediate learner. Course examines the teaching and learning of mathematics in grades 4-6.

\mathbb{E} MATH 3840 **Strategies in Teaching Middle School Mathematics (3)** An investigation of techniques, problems, and issues involved in the teaching of middle school mathematics. Not applicable to major requirements for secondary majors. Prerequisite: MATH 2821 and MATH 2822. FA.

\mathbb{E} MATH 3850 **Strategies in Teaching Secondary Mathematics (3)** An investigation of instructional strategies, problems and issues relevant to the teaching of secondary school mathematics. Prerequisites: MATH 1152, MATH 2221, MATH 2410 and MATH 2861. FA.

\mathbb{E} MATH 3890 **Concepts and Methods of Teaching for Special Education (3)** A survey of concepts and methods for teaching mathematics grades K-12 with particular attention to needs of special education inclusion students. Prerequisite: \mathbb{E} MATH 1620. FA, SU.

MATH 4150 Advanced Calculus I (3) A rigorous approach to the fundamental concepts of differential and integral calculus of functions of a single variable. Prerequisites: MATH 2153, and MATH 3710 or MATH 4710. FA.

MATH 4171 Functions of a Complex Variable (3) General properties of analytic functions of a complex variable with applications. Prerequisite: MATH 4150. FA.

MATH 4211 Topology I (3) Introduces the concept of point set topology. Includes the study of metric spaces, topological spaces, continuity, compactness, countable product spaces, and separation properties. Prerequisite: MATH 4710.

MATH 4233 The Scientific, Historical, and Sociological Impact of Mathematics* (3) Provides an opportunity to experience and understand the importance of mathematics in human development. Prerequisite: MATH 1152 and 9 credit hours of college mathematics at the 2000 level or above. *Not available for graduate credit. SP.

MATH 4312 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. Prerequisites: MATH 2153 and MATH 3311.

MATH 4321 Applied Statistics I (3) Applied statistical models and methods with an emphasis on regression analysis. Prerequisite: MATH 3311. FA.

MATH 4322 Applied Statistics II (3) Applied statistical models and methods with an emphasis on time series and forecasting. Prerequisite: MATH 4321.

MATH 4331 SAS Programing 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. Prerequisite: MATH 4321.

MATH 4323 Statistical Aspects of Experimental Design (3) Calculus based statistical aspects of experimental designs that include randomization, replication, blocking, and factorial experiments.

Prerequisite: MATH 3311 or consent of the instructor.

MATH 4400 Combinatorics (3) Principles of enumeration, integer sequences, advanced binomial coefficients, inclusion-exclusion principle, recurrence relations and generating functions, and special counting sequences. Prerequisite: MATH 2410.

MATH 4450 Introduction to Graph Theory (3) Basic graph theory concepts: connectivity, trees, matchings, graph coloring, Eulerian and Hamiltonian graphs, distance, planarity, and network flows. Prerequisite: CS 2400 or MATH 2410. SP.

MATH 4501 Actuarial Exam Review-Problem Set I (1) Problem solving strategies from probability that are uniquely applied to actuarial science. Corequisite: MATH 4312. SP.

MATH 4510 Mathematics of Finance (3) The basic measures of interest, annuities, discounted cash flow analysis, and their applications. Prerequisite: MATH 1152. SP.

MATH 4511 Actuarial Exam Review-Problem Set II (1) Problems from financial mathematics including modern financial analysis. Prerequisite: MATH 4510. FA.

MATH 4520 Life Contingencies I (3) Theory and applications of contingency mathematics in the areas of life and health insurance, annuities and pensions. Prerequisites: MATH 4312 and MATH 4510.

MATH 4530 Statistical 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, credibility models, and simulation. Prerequisites: MATH 4321 and MATH 4312. SP.

MATH 4645 Senior Projects in Actuarial Science and Statistics* (3) A capstone experience, for student majoring in, Actuarial Science and Statistics, requiring students to integrate Actuarial Science or Statistics skills learned throughout their program of study to solve real world problems. The focus is on the use of technology, such as SAS, R, Microsoft Excel, and Actuarial Software Prophet, to solve complex problems and how to clearly communicate the results of analysis to a non-technical audience. The course will also include research into Professional Code of Ethics and the employment opportunities in actuarial science and statistics. Prerequisites: For Actuary Option: MATH 4520 or for Statistics Option: MATH 4322 and concurrent with MATH 4323. *Not available for graduate credit.

MATH 4710 Algebraic Structures (3) A study of groups, rings and fields with an emphasis in the study of roots of polynomials. Prerequisites: MATH 2410 and MATH 3710.

MATH 4711 Introduction to Modern Algebra (3) A rigorous introduction to the algebraic structures of groups, rings and fields. Prerequisite: MATH 4710.

MATH 4741 Introduction to the Theory of Numbers (3) Congruences, quadratic residues, the reciprocity theorem, and Diophantine equations. Prerequisite: MATH 4710.

MATH 4800 Curriculum Design and Assessment in Mathematics* (1) This course prepares the teacher candidate to use formal and informal assessment strategies to evaluate students' learning of mathematics and to design units of mathematical instruction that meet individual needs of children. Prerequisite: departmental consent. Corequisites: ECEL 4000 Apprenticeship in Literacy and ECEL 4000 Curriculum and Assessment. *Not available for graduate credit.

MATH 4820 Secondary Field Experience II* (1) Experiences in the secondary school classroom that provide the teacher candidate more advanced involvement in the teaching-learning process. Prerequisites: admission to Teacher Education Program; should be taken concurrently with MATH 4870 during the Professional Semester. *Not available for graduate credit. FA, SP.

MATH 4851 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 graduate credit for MS, Mathematics. Prerequisites: MATH 2821 and MATH 2822, or MATH 1151.

MATH 4870 Methods of Teaching Mathematics* (2) Prerequisites: admission to Teacher Education Program; double majors must take a methods course for each major; methods should be taken concurrently with MATH 4820 during the Professional Semester. *Not available for graduate credit. FA, SP.

MATH 4871 Algebraic Concepts for Teachers (3) The properties and language of sets, functions, groups, rings, integral domains, and fields.

Recommended for middle school/junior high school teachers. Will not satisfy requirements on undergraduate programs where MATH 4710 is a requisite. Prerequisite: MATH 2821 or equivalent course in college algebra. SP.

MATH 4880 Issues and Methods of Teaching Secondary Mathematics* (2) An investigation of methods, issues, and resources relevant to the teaching of secondary school mathematics. To be taken the semester prior to student teaching. Prerequisite: admission to Teacher Education Program. *Not available for graduate credit.

MATH 4890 Mathematics for Special Education (2) Individual and small group investigation of concepts and procedures appropriate for instruction of mathematics to all special needs children. Prerequisites: EDSP 2100; and MATH 3801 or MATH 3802, or MATH 3890. SP, SU.

MATH 4910 Special Problems in Mathematics (1-3) Individual reading and research on some topic not included in the regular offerings of the department. *May be repeated for a maximum of 6 semester hours in the major and a maximum of 9 total semester hours in an undergraduate degree.* Prerequisite: mathematics major.

MATH 4912 Internship in Mathematical Sciences (3-8) Opportunity for students to gain knowledge in areas of mathematical science, both theoretical and applied, that would not normally be included as a part of the department's curriculum. Internship contract must be completed prior to beginning work/learning experience. *May be repeated for a maximum of 16 semester hours.* A maximum of 8 semester hours may be applied to any one degree. Prerequisite: consent of department Internship Committee and if taken for graduate credit, approval of graduate advisor.

MGT - Management

In addition to any course prerequisites listed for the courses below, the Harmon College of Business and Professional Studies also enforces a course leveling prerequisite. This means that freshmen (those who have earned 0-29.5 semester hours of college credit) may enroll in 1000 level courses only, sophomores (completed 30-59.5 semester hours) may enroll in 2000 or 1000 level courses, juniors (completed 60-89.5 semester hours) may enroll in 3000, 2000 or 1000 level courses and seniors (all students who have earned 90 semester hours) may enroll in 4000 level courses or below.

MGT 1320 Introduction to Leading & Managing (3) Introductory course providing integration of business knowledge using conceptual, communication, interpersonal, and technical skills applied to organizational behavior, leadership, and human resource management.

MGT 2350 Special Projects in Management (1-3) Basic course in management theory, practice, methods, and strategies taught on an individual or group basis to management students. *May be repeated for a maximum of 6 semester hours.*

MGT 3300 Dale Carnegie Leadership Training for Managers (2) The Dale Carnegie Leadership Training for Managers course. Prerequisite: junior standing.

MGT 3315 Management of Organizations (3) An examination of the theory and practices of managing organizations, including planning, organizational theory, human behavior, and control. Prerequisite: 60 hours. FA, SP, SU.

MGT 3320 Systems, Teams and Organizational Behavior (3) Emphasis on systems, teams, interpersonal relationships between participants and the dominant influence of systems on human behavior in groups and organizations. Prerequisites: MGT 3325 or concurrently. MGT 3315 recommended before MGT 3320 for BSBA majors. FA, SP.


MGT 3325 Business Communications (3) Improves the student's ability to plan and strategically write letters, memos, proposals, and reports and improve oral and interpersonal communication skills. Both listening and speaking skills will be developed through formal presentations, class discussions, and group work. Prerequisites: ENGL 1030 or ENGL 1080 or CTE 3060; COMM 1000 or COMM 1050; Junior standing. FA, SP, SU.

MGT 3335 Internship in Management (1-9) Opportunity for students to gain theoretical knowledge and practical application within a particular field of specialization. *May be taken for pass/fail credit only.* Prerequisites: Admission to the B.S.B.A. program, 60 semester hours, and overall GPA of 2.5 or above, or permission from internship director.

MGT 3345 International Management (1, 3) This course will investigate

the impact of 'free economies', cultural differences, negotiation styles, HR practices political systems and ethical dilemmas on international business and management. FA, SP.

MGT 3350 Special Projects in Management (1-3) Intermediate course in management theory, practice, methods, and strategies taught on an individual or group basis to management students. *May be repeated for a maximum of 6 semester hours.*

 **MGT 3360 Production/Operations Management (3)** Experiential analysis of operations problems commonly faced by managers in many disciplines. Emphasis on strategic operations decision making, planning operation systems, forecasting, project management, supply chain management, sustainability and corporate social responsibility. Prerequisites: FIN 3801 or concurrently and MGT 3315 or concurrently; or FIN 3801 or concurrently and a declared BS in Economics. FA, SP, SU.

 **MGT 3385 Integrative Business Experience Practicum (3)** Students will apply concepts from the concurrent courses to their own start-up business venture and to community service. Corequisites: special sections of MGT 3315, MKT 3405 and CIS 3630. FA, SP.

MGT 4300 Health Care Administration (3) Management concepts, tools, and techniques for effective administration of all types of health care facilities. Prerequisite: MGT 3315.

MGT 4310 Quality and Innovation (3) Students learn systems thinking, criteria for the design of quality systems, the change process for transformation of organizational systems, process management, and the cycle of continuous improvement. Prerequisite: Admission to the B.S.B.A. program or admission to the graduate school or declared management minor. FA, SP.

MGT 4320 Leading and Managing Teams and Organizations* (3) This course focuses on the behaviors of exemplary leaders. Student teams develop and deliver workshops allowing fellow students to become more effective leaders by practicing the behaviors of exemplary leadership. Prerequisites: MGT 3320, and Admission to the B.S.B.A. program. *Not available for graduate credit. FA, SP.

MGT 4325 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. Prerequisite: MGT 3325 and Admission to the BSBA program, or MGT 3325 and declared management minor, or admission to the Graduate school. FA, SP.

MGT 4350 Special Projects in Management (1-3) Advanced course in management theory, practice, methods, and strategies taught on an individual or group basis to advanced management students and graduate students. *May be repeated for a maximum of 6 semester hours.* Prerequisites: all preadmission courses or MBA background requirements, MGT 3315, and Department Chair's approval with adequate preparation in area to be studied.

MGT 4357 Organizational Policy and Strategy* (3) Capstone course requiring integration of business knowledge using conceptual, communication, interpersonal, and technical skills applied to strategic management. Case study and competitive simulation methods are used in an experiential team learning environment. Prerequisites: Admission to the B.S.B.A. program, FIN 3850, MGT 3315, MGT 3325, MKT 3405, and senior standing. *Not available for graduate credit. FA, SP, SU.

MGT 4370 Supply Chain Management (3) Explains the role of supply chain managers and the impact of their decisions on the competitive success and profitability of modern organizations. Through integrative experiential team-based activities and projects, students are given an opportunity to experience the increasingly strategic nature of supply chain management. Prerequisite: Admission to the BSBA program, or admission to the graduate school or declared management minor or permission of department chair. FA, SP.

MKT - Marketing

In addition to any course prerequisites listed for the courses below, the Harmon College of Business and Professional Studies also enforces a course leveling prerequisite. This means that freshmen (those who have earned 0-29.5 semester hours of college credit) may enroll in 1000 level courses only, sophomores (completed 30-59.5 semester hours) may enroll in 2000 or 1000 level courses, juniors (completed 60-89.5 semester hours) may enroll in 3000, 2000 or 1000 level courses and seniors (all

students who have earned 90 semester hours) may enroll in 4000 level courses or below.

MKT 1400 Orientation to Marketing (1) Orientation to the field of marketing. Available for those with less than 75 hours and no prior credit in MKT 3405 or equivalent. Counts as a free elective. FA.

MKT 3400 Principles of Marketing (3) Methods used in determining the needs and desires of consumers and translating these findings into products of a suitable nature. Methods used in getting these products into the hands of the consumer. Basic marketing class for nonbusiness majors. Not available to students with prior credit in MKT 3405 and may not be used as a marketing elective.

MKT 3405 Marketing Policy (3) A comprehensive study of marketing theory and concepts and the application of these ideas in modern organizations by professionally trained managers. First course in marketing sequence for marketing majors and minors, and marketing foundation course for the business core requirement of B.S.B.A. degree students. May not be used as a marketing elective. Prerequisite: 60 semester hours of college credit. FA, SP, SU.

MKT 3410 Retail Management (3) The initial considerations and decisions for establishing and managing a retail store. Prerequisite: MKT 3400 or MKT 3405. FA, SP.

MKT 3420 Principles of Advertising (3) Advertising purposes and procedures covering primarily the point of view of the advertising manager. Study of proper appeals, copy preparation, layout, and media. Prerequisite: MKT 3400 or MKT 3405 or AGRI 3120. FA, SP, SU.

MKT 3430 Professional Sales (3) Techniques involved in personal selling. Prerequisite: MKT 3400 or MKT 3405 or AGRI 3120. FA, SP, SU.

MKT 3435 Internship in Marketing (1-6) Opportunity for students to gain theoretical knowledge and practical application within a particular field of specialization. May be taken for pass/fail credit only. Prerequisites: Admission to the B.S.B.A. program, MKT 3405, overall GPA of 2.50 or above and consent of internship director. FA, SP, SU.

MKT 3440 Sales Advantage (3) Applied course in Sales techniques incorporating the content of the Dale Carnegie Sales Advantage course and coverage of ethical issues involving current professional sales practices.

MKT 3450 Digital Marketing (3) Introduces the concepts, analyses, and activities that comprise marketing management in digital and interactive media, as well as social media approaches to digital marketing strategy.

MKT 3460 Advanced Professional Sales (3) This course will apply advanced communication skills to the sales process for those interested in business to business selling as a career. Prerequisites: MKT 3405 and MKT 3430. FA.

MKT 3480 Consumer Behavior (3) The application of knowledge from the behavioral sciences to the study, analysis, and interpretation of consumer buying habits and motives. Individual, group, and cultural influences on consumer preferences and purchasing patterns are emphasized. Prerequisite: MKT 3400 or MKT 3405. FA, SP, SU.

MKT 3485 Integrative Business Experience Practicum (3) Students will apply concepts from the concurrent courses to their own start-up business venture and to community service. Corequisites: special sections of MGT 3315, MKT 3405 and CIS 3630. FA, SP.

MKT 4420 Sales Management (3) Management aspects of selling with emphasis on the role of the supervisor in the sales field. Prerequisites: MKT 3405; Admission to the B.S.B.A. program for undergraduate students or graduate status. SP.

MKT 4430 Marketing Distribution (3) Methods and strategies used in distributing products including the design of channels and the activity performed by channel members to facilitate efficient movement of goods. Prerequisites: MKT 3405; Admission to the B.S.B.A. program for undergraduate students or graduate status. SP

MKT 4440 Seminar in Marketing (3) Analysis of current issues and problems in marketing with emphasis on new theoretical and methodological developments. Prerequisites: MKT 3405; Admission to the B.S.B.A. program for undergraduate students or graduate status. FA.

MKT 4450 Integrated Marketing Communication (3) The determination of the correct blend of advertising, personal selling, sales promotion, reseller support, and publicity. Prerequisites: MKT 3405; Admission to the B.S.B.A. program for undergraduate students or graduate status. FA.

MKT 4454 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.

MKT 4460 International Marketing (3) Marketing policies and practices in foreign trade. Prerequisites: MKT 3405; Admission to the B.S.B.A. program for undergraduate students or graduate status. FA, SP, SU.

MKT 4470 Marketing Research (3) Applications of research methods to the problems of marketing. Prerequisites: MKT 3405; Admission to the B.S.B.A. program for undergraduate students or graduate status. FA, SP, SU

MKT 4480 Special Projects in Marketing (1-3) Individualized or group study under supervision of department faculty. *May be repeated for a maximum of 6 semester hours.* Prerequisite: department chair approval. AN.

MKT 4490 Marketing Management* (3) An overview of major areas of marketing from the viewpoint of the marketing executive; a capstone course integrating previous marketing study and background into a managerial context. Prerequisites: MKT 3405, Admission to the B.S.B.A. program, and last semester in program. *Not available for graduate credit. FA, SP, SU.

ML - Modern Languages

ML 1040 Special Projects in Modern Languages (1-3) Small-group instruction at the introductory level. *May be repeated for a maximum of 12 semester hours.*

ML 2000 World Literatures in Translation (3) The class will explore social and intellectual forces of literature in translation, while keeping a close eye on how the original is changed in translation. Additionally, students will discuss the nature of translation, and will learn basic elements of the language which are relevant to the texts studied. Prerequisites:

WENGL 1020 and (WENGL 1030 or WCTE 3060); or WENGL 1080 with a grade of C or higher.

ML 2010 Foreign Studies in Language (1-6) Credit granted for study in a departmentally-approved program in a foreign country. *May be repeated for a maximum of 12 semester hours.*

ML 4010 Foreign Studies in Language (French) (German) (Spanish) (1-6) Credit granted for study in a UCM approved program in a foreign country. Freshmen and sophomores permitted to enroll with consent of the Chair of the Department of Modern Languages. Available for graduate credit upon approval of student's graduate program advisor. *May be repeated for a maximum of 12 semester hours.*

ML 4040 Special Projects in Foreign Language (1-3) Individualized and group instruction in foreign and modern languages. *May be repeated for a maximum of 6 semester hours.* Prerequisite: consent of department chair.

ML 4050 Language in the Professions/Translation (3) Translation theory and practice related to professional fields. To be taken the semester prior to graduation. Prerequisite: instructor consent. *Not available for graduate credit.

ML 4054 Methods of Teaching Foreign Languages* (3) Prerequisites: admission to Teacher Education Program; double majors must take a methods course for each major. *Not available for graduate credit.

MS - Military Science

MS 1110 Leadership and Personal Development (2) Introduce military mountaineering, basic first aid and leadership fundamentals. Students learn how life skills such as goal setting, and physical fitness relate to leadership and the Army profession. FA.

MS 1120 Introduction to Tactical Leadership (2) Introduce land navigation and compass skills. Overviews leadership fundamentals of problem-solving, listening, briefing, and written and oral communication. Explores leadership values, attributes, skills, and actions through hands-on and interactive exercises. Laboratory is required. Prerequisites: MS 1110 or consent of Department Chair. SP.

MS 2210 Innovative Team Leadership (2: 2 lecture, 0 lab) Teach rappelling, basic survival techniques, and land navigation. Explores creative and innovative tactical leadership. Develops personal motivation and team building in the context of planning, executing, and assessing team exercises. Laboratory is required. Prerequisite: MS 1120 or equivalent or consent of the Department Chair. FA.

MS 2220 Foundations of Tactical Leadership (2) Continue skills in rappelling, one-rope bridges, and land navigation. Introduces squad tactics; highlights terrain analysis, patrolling, and operation orders; addresses challenges of leading; and continues exploring adaptive leadership. Laboratory is required. Prerequisite: MS 2210 or equivalent or consent of the Department Chair. SP.

MS 2500 History of the US Army (3) Integrates the basic knowledge of military history into the education of future Army officers. Prerequisite: departmental consent. SP.

MS 2510 Basic Summer Camp (3) Substitutes for the first two years of military science courses. Course is conducted during the summer for a period of five weeks. Transportation, room board, military clothing and a salary are provided. Interested students should contact the Professor of Military Science between January and March of their sophomore year. Prerequisite: departmental consent. SU.

MS 3310 Adaptive Tactical Leadership (3: 3 lecture, 0 lab) Concentrate on the principles and techniques of military operations and leadership through study, practice, and evaluation as students are presented with scenarios related to tactical operations. Focuses on development through self-evaluation and feedback. Prerequisite: MS 2220. Corequisite: MS 3330. FA.

MS 3320 Leadership in Changing Environments (3) Concentrate on the principles, fundamentals, and techniques of leadership at small unit or organization levels with increasingly intense situational leadership challenges to build cadet awareness and skills in leading tactical operations up to platoon level. Prerequisites: MS 3310 and MS 3330. Corequisite: MS 3340. SP.

MS 3330 Introduction to the Army Physical Fitness Program (2) Basic components of fitness and an overview of the principles of exercise. FA.

MS 3340 Concepts in Fitness Training Development (2) Development of the unit physical fitness program with an in-depth analysis of the principles of fitness and exercise. Prerequisite: MS 3330. SP.

MS 4410 Developing Adaptive Leaders* (3: 3 lecture, 0 lab) Develop proficiency in planning, executing, and assessing operations, staff operations, and leading and counseling subordinates. Teaches risk assessment, making ethical decisions, military justice, and personnel processes helping cadets transition to officers. Prerequisites: MS 3320 and MS 3340. Corequisite: MS 4430. *Not available for graduate credit. FA.

MS 4420 Leadership in a Complex World* (3) Explore leading in the complex situations in the contemporary operating environment (COE). Teaches customs and courtesies, military law, principles of war, and rules of engagement. Discusses non-government organizations, civilians on the battlefield, and host nation support. Prerequisites: MS 4410 and MS 4430. Corequisite: MS 4440. *Not available for graduate credit. SP.

MS 4430 Management of the Unit Fitness Program* (2) Alternate athletic activities and risk assessment planning. Prerequisite: MS 3340. *Not available for graduate credit. FA.

MS 4440 The Army Master Fitness Training Program* (2) Administration of the unit fitness program with emphasis on the regulatory requirements governing the unit fitness program. Prerequisite: MS 4430. *Not available for graduate credit. SP.

MS 4500 Current Military Trends* (3) Continues a student's transition from being a Cadet to learning how to be an Army Officer. It will build on skills that Cadets have already learned. This course will enhance knowledge and proficiency as an officer through exploration of military trends and scenarios to produce military officers who are better prepared for their first duty assignment. Prerequisite: MS 4420. *Not available for graduate credit. FA.

MS 4501 Current Military Trends II* (3) This course continues the transition from being a Cadet to learning how to be an Army Officer. It builds on the skills Cadets have learned in their previous Military Science courses. Topics may include: the Military Decision Making Process, Army Writing Style, and the Army's Training Management and METL Development processes, along with current trends and changes in the Army. Prerequisite: MS 4500. *Not available for graduate credit. SP.

MS 4510 Advanced Summer Camp* (3) Five weeks of advanced summer camp experience for advanced military science students. Required for completion of military science program and commissioning. Students receive financial assistance. Prerequisite: MS 3320 and departmental consent. *Not available for graduate credit. SU.

MSC - Missouri Safety Center

MSC 2110 Police Academy I (3) The first of five classes that together constitute the Central Missouri Police Academy course. These classes include the mandatory curriculum of the 600 hour, Missouri POST Class

A course. This is not an open enrollment course; applicants must first be approved by the CMPA Director.

MSC 2120 Police Academy II (3) The second of five classes that together constitute the Central Missouri Police Academy course. These classes include the mandatory curriculum of the 600 hour, Missouri POST Class A course. This is not an open enrollment course; applicants must first be approved by the CMPA Director.

MSC 2130 Police Academy III (3) The third of five classes that together constitute the Central Missouri Police Academy course. These classes include the mandatory curriculum of the 600 hour, Missouri POST Class A course. This is not an open enrollment course; applicants must first be approved by the CMPA Director.

MSC 2140 Police Academy IV (3) The fourth of five classes that together constitute the Central Missouri Police Academy course. These classes include the mandatory curriculum of the 600 hour, Missouri POST Class A course. This is not an open enrollment course; applicants must first be approved by the CMPA Director.

MSC 2150 Police Academy V (3) The fifth of five classes that together constitute the Central Missouri Police Academy course. These classes include the mandatory curriculum of the 600 hour, Missouri POST Class A course. This is not an open enrollment course; applicants must first be approved by the CMPA Director.

MSC 2210 Driver Education I - Introduction to Safety Education (3) An introductory course in the principles and fundamentals of safety education covering the concern for safety as a social problem and considers major accident areas, accident causes, liability and analyzes possible solutions to the accident problem.

MSC 2220 Driver Education II – Driver Task Analysis (3) Designed as an introduction to the task of the driver within the highway transportation system (HTS) with emphasis on risk perception, risk management and the decision making process.

MUS - Music

MUS 1000 Recital Attendance (0) Laboratory in music listening and musical performance. Attendance at a designated number of department sponsored or approved concerts. May be taken for pass/fail credit only. *May be repeated.*

MUS 1005 Marching Band (1) Appears at all home games, one away game, and frequently at professional football games. Membership selected by audition. *May be repeated.*

MUS 1008 Campus Band (1) A concert band open to any university student who wishes to continue band performance which explores a wide range of original and transcribed works. Music majors may gain experience on a secondary instrument. Membership selected by audition. *May be repeated.*

MUS 1010 Symphonic Band (1) Open without audition to any University student interested in band. Instrumental music majors may gain experience on a secondary instrument in the Symphonic Band. *May be repeated.*

MUS 1055 Collegiate Choir (1) A large mixed chorus which sings music representative of the finest in sacred and secular choral literature. Membership selected by audition. *May be repeated.*

MUS 1081 Jazz Ensemble 2 (1) Study and performance of traditional and progressive jazz ensemble music. Membership selected by audition. *May be repeated.*

MUS 1085 Jazz-Rock Combo (1) Study and performance of traditional and progressive jazz-rock music in a small group format. Membership selected by audition. *May be repeated.*

Participation in small ensembles is strongly recommended. These are ensembles with flexible instrumentation designed to promote musical independence and discriminating listening through performance of a wide variety of chamber music. Open to any University student by music faculty permission. *May be repeated.*

MUS 1095 Keyboard Ensemble (1)

MUS 1097 String Ensemble (1)

MUS 1098 Chamber Winds and Percussion (1)

MUS 1100 Fundamentals of Music (3) Basic theory: notation, scales, chords, terminology. Application to simple rhythm, chording, and melody instruments and piano.

MUS 1111 Theory I (3) Basic materials: notation, rhythm and meter, scales, intervals, triads, primary and secondary harmony, V7, phrase, period, cadence, the concept of tonality, and related analysis. Prerequisite:

Admission by examination or completion of MUS 1100 with grade of C or better. Corequisite: MUS 1121 for music majors and minors.

MUS 1112 Theory II (3) Melodic and harmonic structure and embellishment, nonharmonic tones, consonance and dissonance principles, simple two-part counterpoint, part writing, harmonic progression, secondary dominants, regions, and modulation. Prerequisite: MUS 1111. Corequisite: MUS 1122.

MUS 1121 Aural Training I (1) Basic listening and aural awareness skills: rhythm and pitch patterning, scales, intervals, triads, V7, primary triads, harmonic dictation, melodic memory, melodic dictation, and sight singing. Prerequisite: Admission by examination or completion of MUS 1100 with grade of C or better. Corequisite: MUS 1111

MUS 1122 Aural Training II (1) Continuation of development of aural skills introduced in MUS 1121 plus two-part dictation, nonharmonic tones, secondary triads, secondary dominants, and modulation. Prerequisite: MUS 1121. Corequisite: MUS 1112.

MUS 1210 Experiencing Music (3) An introduction to important musical masterpieces with emphasis on the knowledge and skills involved in perceptive listening. Prerequisite: no previous musical experience is necessary.

MUS 1220 The Evolution of a Popular Art: An Introduction to Rock Music (3) An introduction to the development of rock music and its precursors in the United States during the period 1900-present.

MUS 1225 Music of the World's Cultures (3) This course gives the student a basic knowledge and understanding of global cultures, particularly those outside the European or Euro-American cultural sphere, and examines how diverse people have been influenced by music.

MUS 1281 History and Development of Jazz (3) A survey of the evolution in jazz music in the United States. Includes discussion of the styles and characteristics of each period of jazz history and the contributions of influential groups and individuals. SP(E).

MUS 1390 Introduction to Music Education (2) Introduction to the field of music education including examination of the purposes and basic methodologies for music teaching and careers in music education. Prerequisite: admission to the undergraduate program in music education or with departmental approval.

MUS 1400 Computer Music Notation (0.5) Introduction to notating music with computer software.

MUS 1410 Introduction to Sound Reinforcement (0.5) Basic sound reinforcement techniques, including simple system design, setup, and operation.

MUS 1420 Concert Recording (0.5) Basic concert recording techniques and equipment. Microphone placement and recorder operation.

MUS 1430 Introduction to Audio Production (0.5) Basic audio editing, mixing, and mastering techniques and equipment. Manipulation of audio to craft finished recordings.

MUS 1440 Introduction to MIDI (0.5) Overview of MIDI systems. Sequencing, system setup, and the MIDI specification.

MUS 1450 Audio and Acoustics (3) Practical approach to the principles of audio and acoustics. Physical properties of sound, propagation and interaction of sound with various environments and obstacles, and an introduction to techniques for controlling and manipulating sound in structures. Operating principles of digital and analog audio, including transduction, time- and frequency-domain analysis, and sampling theory.

MUS 1460 Music Technology Performance I (2) Class study of performing live music with technology. Performance skills; basic instrument customization and optimization; improvisation; songwriting/composition; basic interpretation and aesthetics of performance. Technical skills as needed to interface individuals' instruments with various performance systems. *May be repeated for a maximum of 8 semester hours.* Prerequisite: successful completion of entrance exam required for initial enrollment.

MUS 1501 Piano Class I (1) Study of the piano, especially for adult students who have had no previous training.

MUS 1502 Piano Class II (1) A continuation of MUS 1501. Prerequisite: MUS 1501.

MUS 1507 Secondary Keyboard Lessons (1) Private lesson study in any keyboard instrument listed in this catalog. Does not count for any music major or minor as the principal performing area. Prerequisite: initial enrollment by permission of applied area faculty. *May be repeated.* An additional fee is associated with this course.

MUS 1510 Piano I (1) Technical study and easier compositions selected

from the various eras of keyboard literature. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated.*

Prerequisite: Successful completion of admission audition required for initial enrollment. An additional fee is associated with this course.

MUS 1520 Organ I (1) Manual and pedal study, elementary registration and specification; Bach short preludes and fugues, chorale preludes, etc. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated.* Prerequisite: Successful completion of admission audition required for initial enrollment.

MUS 1601 Voice Class I (1) Breathing exercises, diction, stage deportment, acquaintance with familiar vocal literature, and experience in solo and duet singing. Designed for beginning voice students. Prerequisite: demonstrated ability to read music.

MUS 1602 Voice Class II (2) Instruction in breathing, resonance, diction, musicality, performance skills, and the nature of the vocal instrument, using solo song and duet literature in English and Italian. Prerequisite: one semester of MUS 1610, or MUS 1601.

MUS 1607 Secondary Voice Lessons (1) Private lesson study in voice. Does not count as credit for any music major or minor as the principal performing area. Prerequisite: initial enrollment by permission of applied area faculty. *May be repeated.* An additional fee is associated with this course.

MUS 1610 Voice I (1) Breath control; technical exercises represented by Sieber, Vaccai, and other specified methods. Early Italian songs. English songs of medium difficulty, and other repertoire suggested by the instructor. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated.* Prerequisite: Successful completion of admission audition required for initial enrollment. An additional fee is associated with this course.

MUS 1615 Opera Theatre (1-2) Production of scenes from operatic repertoire. *May be repeated for a maximum of 4 semester hours.*

MUS 1620 Musical Theatre Practicum (1-2) Rehearsal and performance of Musical Theatre repertoire. *May be repeated for a maximum of 4 semester hours.* Prerequisite: entrance by audition.

MUS 1701 String Class (1) A laboratory course in the fundamentals of playing and teaching string instruments. *May be repeated for a maximum of 2 semester hours.* Two different string instruments will be studied in each semester.

MUS 1703 Beginning Guitar Class (2) This course will prepare students in the basic fundamentals of guitar playing. Concepts of applied music theory will also be introduced.

MUS 1707 Secondary String Lessons (1) Private lesson study in any string instrument listed in this catalog. Does not count for any music major or minor as the principal performing area. Prerequisite: initial enrollment by permission of applied area faculty. *May be repeated.* An additional fee is associated with this course.

This course description is applicable for all applied string instruments courses: easy technical studies, easy standard sonatas, concertos, and short solos. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated.* Prerequisite: Successful completion of admission audition required for initial enrollment. An additional fee is associated with each course.

MUS 1710 Violin I (1)

MUS 1715 Viola I (1)

MUS 1720 Cello I (1)

MUS 1725 String Bass I (1)

MUS 1760 Guitar I (1) Technical studies, standard solo literature from all style periods. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated.* Prerequisite: Successful completion of admission audition required for initial enrollment. An additional fee is associated with this course.

MUS 1770 Harp I (1) Easy technical studies, easy standard sonatas, concertos, and short solos. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated.* Prerequisite: Successful completion of admission audition required for initial enrollment.

MUS 1807 Secondary Woodwind Lessons (1) Private lesson study in any woodwind instrument listed in this catalog. Does not count for any music major or minor as the principal performing area. Prerequisite: initial enrollment by permission of applied area faculty. *May be repeated.* An additional fee is associated with this course.

This course description is applicable for the following woodwind instruments courses: breath control; fundamentals of mechanism,

embouchure; proper tonal color; technical exercises; easy solos; supervised chamber ensemble rehearsals. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated.* Prerequisite: Successful completion of admission audition required for initial enrollment. An additional fee is associated with each course.

MUS 1810 Flute I (1)

MUS 1815 Clarinet I (1)

MUS 1820 Oboe I (1)

MUS 1825 Saxophone I (1)

MUS 1830 Bassoon I (1)

MUS 1907 Secondary Brass and Percussion Lessons (1) Private lesson study in any brass instrument listed in this catalog or in percussion. Does not count for any major or minor as the principal performing area. Prerequisite: initial enrollment by permission of applied area faculty. *May be repeated.* An additional fee is associated with this course.

The course description is applicable for the following brass instruments courses: breath control; fundamentals of mechanism, embouchure; proper tonal color; technical exercises; easy solos; supervised chamber ensemble rehearsals. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated.* Prerequisite: Successful completion of admission audition required for initial enrollment. An additional fee is associated with each course.

MUS 1910 Trumpet I (1)

MUS 1915 French Horn I (1)

MUS 1920 Trombone I (1)

MUS 1925 Baritone Horn I (1)

MUS 1930 Tuba I (1)

MUS 1960 Percussion I (1) Fundamental skills in rudimental and concert snare drum techniques. Study of the keyboard percussion instruments and an introduction to the timpani. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated.* Prerequisite: Successful completion of admission audition required for initial enrollment. An additional fee is associated with this course.

MUS 2111 Theory III (3) Continuation of the materials and organization of music: modality, modulation, seventh chords, chromatic harmony, contrapuntal procedures, and form. Prerequisite: MUS 1112. Corequisite: MUS 2121.

MUS 2112 Theory IV (3) Continuation of MUS 2111. Analytical and compositional methods of twentieth and twenty-first century music. Prerequisite: MUS 2111. Corequisite: MUS 2122.

MUS 2121 Aural Training III (1) Continuation of the development of aural skills in MUS 1122 applied to sight singing and aural perception of rhythm, melody, and chromatic harmony. Prerequisite: MUS 1122. Corequisite: MUS 2111.

MUS 2122 Aural Training IV (1) Continuation of the development of aural skills in MUS 2121 including rhythmic, melodic, and harmonic techniques from the twentieth century. Prerequisite: MUS 2121. Corequisite: MUS 2112.

MUS 2141 Composition I (3) Techniques of twentieth century composition through projects in smaller forms. Electronic music studio techniques. Aural and visual analysis of twentieth century music. *May be repeated for a maximum of 6 semester hours.* Prerequisites: MUS 1112 and MUS 1122. An additional fee is associated with this course.

MUS 2180 Jazz Improvisation I (2) The techniques and materials of jazz improvisation at the introductory level. Scales, chords, phrasing, articulation, and guided listening. Performance mandatory. Prerequisite: MUS 1112 and MUS 1122.

MUS 2181 Jazz Improvisation II (2) A continuation of MUS 2180. Advanced concepts in style and form. Transcription of recorded solos using altered scales and chords and the development of style. Performance mandatory. Prerequisite: MUS 2180.

MUS 2221 Introduction to Music Literature I (2) An introduction to the principal genres of instrumental music with emphasis on representative works from the standard repertoire. A basic knowledge of instrumental music is assumed. Prerequisite: MUS 1100 or consent.

MUS 2222 Introduction to Music Literature II (2) An introduction to the principal genres of vocal music including oratorio, church music, opera, and art songs. A basic knowledge of vocal music is assumed. Prerequisite: MUS 1100 or consent.

MUS 2300 Fundamentals of Conducting (3) An introductory course in conducting including baton technique and basic score preparation. Prerequisites: MUS 1112 and MUS 1122 or concurrently.

MUS 2400 Sound Reinforcement and Music Production (3) Introductory theory and usage of audio equipment to produce recordings and provide sound reinforcement for live events. Application of informed musical judgment to the music production process. Prerequisite: **MUS 1450**. An additional fee is associated with this course.

MUS 2410 Digital Audio Production (3) Theory and usage of digital audio hardware and software to produce music and other audio. Application of informed musical judgment to the audio production process. Prerequisites: completion of **MUS 1450**. An additional fee is associated with this course.

MUS 2420 Technology Practicum (0) Practical experience in audio recording, live sound reinforcement, and audio engineering facility management. *May be repeated*. Prerequisite: **MUS 2400** or concurrently.

MUS 2501 Piano Class III (1) A continuation of **MUS 1502** with additional emphasis on functional keyboard skills. *May be repeated*. Prerequisite: **MUS 1502**.

MUS 2502 Piano Class IV (1) Emphasis on specific piano proficiency skills for vocal and instrumental students preparing for a teaching career. *May be repeated*. Prerequisite: **MUS 2501** or **MUS 1510** or permission of instructor.

MUS 2515 Piano Accompanying (2) A study of and practical experience in piano accompanying in various musical mediums, using music from several styles and historical eras. Prerequisite: one year of college level private piano or consent of instructor. FA[E].

MUS 2631 Diction for Singers I (1) Systematic instruction in singing Italian and Ecclesiastical latin repertoire emphasizing clear, correct, and expressive diction and a thorough understanding of the International Phonetic Alphabet (IPA), its rules and applications. Prerequisite: **MUS 1610** or consent of instructor.

MUS 2632 Diction for Singers II (2) Systematic instruction in singing French and German art songs emphasizing clear, correct, and expressive diction. Prerequisites: **MUS 1610** and **MUS 2631**. SP[E].

MUS 2801 Woodwind Class I (1) A laboratory course in the fundamentals of playing and teaching the clarinet and the saxophone.

MUS 2802 Woodwind Class II (1) A laboratory course in the fundamentals of playing and teaching the oboe, the bassoon, and the flute.

MUS 2901 Brass Class I (1) A laboratory course in the fundamentals of playing and teaching the trumpet and French horn.

MUS 2902 Brass Class II (1) A laboratory class in the fundamentals of playing and teaching the baritone horn, the trombone, and the tuba.

MUS 2950 Percussion Class (1) A laboratory course in the basic techniques of playing and teaching the instruments of percussion.

MUS 3060 Junior Recital (1) One-half of a public recital. Prerequisite: consent of instructor.

MUS 3070 Chamber Singers (1) A select small chamber choir of mixed voices that performs vocal chamber music from all historical periods. Membership selected by audition. *May be repeated*.

MUS 3075 Madrigal Singers (1) A select performing group specializing in Renaissance and twentieth century madrigal singing. Membership selected by audition. *May be repeated*.

MUS 3077 Vocal Jazz Ensemble (1) A select ensemble specializing in vocal jazz arrangements of music from all styles. Membership is by audition. *May be repeated*.

MUS 3095 Piano Accompanying Practicum (1) Instruction and supervised practical experience in piano accompanying on an individual basis. *May be repeated*. Prerequisite: **MUS 2515**.

MUS 3141 Composition II (3) Continuation of **MUS 2141** through projects of small and medium dimensions adapted to needs and interests of the student. *May be repeated for a maximum of 12 semester hours*. Prerequisite: **MUS 2141**. An additional fee is associated with this course.

MUS 3211 Music History to 1750 (3) Early history of music including the Medieval, Renaissance, Baroque, and Classic eras. For music majors and minors only. Prerequisite: **MUS 2111**.

MUS 3212 Music History 1750-Present (3) Music of the Classical era, the Romantic era, and the twentieth and twenty-first centuries. Prerequisite: **MUS 2111**.

MUS 3301 Music for Elementary Schools (2) The study of music fundamentals, methods and materials appropriate for teaching music to children K-6. Developing skills in listening, singing, playing percussion and tonal instruments. Planning and evaluating learning experiences.

MUS 3305 Methods of Teaching Elementary School Music (3) Acquisition of materials and methodology for music majors who are

preparing to teach music in the elementary schools. Includes examination of note and rhythm reading comprehension, fluency, strategies, practice skills, concept development, and critical thinking and analysis, especially within the context of music education for typical and atypical learners. Prerequisites: **MUS 1112** and admission to the Teacher Education Program.

MUS 3306 Methods of Teaching Instrumental Music (2-3) Methods, materials, and organization of the intermediate and secondary instrumental program, including development of administrative content and curricular design and development in both differentiated linear and vertical instructional structures. Intended for music majors who are preparing to teach instrumental music. Prerequisites: **MUS 1112** and admission to the Teacher Education Program.

MUS 3308 Marching Band Techniques (1) The various techniques of pageantry, precision drill, arranging, charting and planning, as well as problems of organization, administration and public relations.

MUS 3310 Choral Conducting (3) Techniques of choral conducting, rehearsal procedures, and basic choral repertoire. Prerequisite: **MUS 2300**.

MUS 3315 Choral Techniques (3) Aspects of choral singing and pedagogy, including the human voice and choral tone, choral diction, organization, rehearsal procedures, basic choral repertoire, and assessment. Prerequisites: **MUS 3310** or concurrently, successful demonstration of keyboard competency and admission to the Teacher Education Program.

MUS 3320 Instrumental Conducting and Rehearsal Techniques (3) Advanced techniques of conducting instrumental ensembles, development of visual/aural discrimination skills for diagnosing and correcting problems in performance; and selection of appropriate methods and literature. Prerequisites: **MUS 2300**, successful demonstration of keyboard competency and admission to the Teacher Education Program.

MUS 3400 New Technologies Ensemble (1) Study and performance of chamber and large ensemble music incorporating technology. Membership selected by audition. *May be repeated for a maximum of 8 semester hours*. Prerequisite: **MUS 1460** or concurrently.

MUS 3460 Music Technology Performance II (2) Advanced class study of performing live music with technology. Advanced performance skills; instrument design, realization, customization, and optimization; improvisation; songwriting/composition; advanced interpretation and aesthetics of performance. Technical skills as needed to interface individuals' instruments with various performance systems. *May be repeated for a maximum of 8 semester hours*. Prerequisite: successful completion of departmental exam required for initial enrollment.

MUS 3510 Piano II (1.5) Technical study and moderately difficult compositions selected from the various eras of keyboard literature. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated*. Prerequisite: successful completion of lower level credit as determined by departmental examination. An additional fee is associated with this course.

MUS 3520 Organ II (1.5) Continued manual and pedal study; Bach preludes and fugues; selections from advanced classic and modern organ works; church playing and accompaniments. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated*. Prerequisite: successful completion of lower level credit as determined by departmental examination.

MUS 3610 Voice II (1.5) Advanced technical exercises, modern art songs; the great Lieder composers; French art songs; and representative repertoire from opera and oratorio. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated*. Prerequisite: successful completion of lower level credit as determined by departmental examination. An additional fee is associated with this course.

This course description is applicable for the following string instruments courses: advanced technical studies, advanced standard sonatas, concertos, and short solos. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated*. Prerequisite: successful completion of lower level credit as determined by departmental examination. An additional fee is associated with each course.

MUS 3710 Violin II (1.5)

MUS 3715 Viola II (1.5)

MUS 3720 Cello II (1.5)

MUS 3725 String Bass II (1.5)

MUS 3760 Guitar II (1.5) Advanced technical studies, advanced standard

sonatas, concertos, and short solos. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated.*
Prerequisite: successful completion of lower level credit as determined by departmental examination. An additional fee is associated with this course.

MUS 3770 Harp II (1.5) Advanced technical studies, advanced standard sonatas, concertos, and short solos. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated.*
Prerequisite: Successful completion of lower credit as determined by departmental examination.

This course description is applicable for all applied woodwind instruments courses: advanced technical studies; standard solos; chamber ensemble playing. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated.* Prerequisite: successful completion of lower level credit as determined by departmental examination. An additional fee is associated with each course.

MUS 3810 Flute II (1.5)

MUS 3815 Clarinet II (1.5)

MUS 3820 Oboe II (1.5)

MUS 3825 Saxophone II (1.5)

MUS 3830 Bassoon II (1.5)

This course description is applicable for the following applied brass instruments courses: advanced technical studies; standard solos;

chamber ensemble playing. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated.* Prerequisite: successful completion of lower level credit as determined by departmental examination. An additional fee is associated with each course.

MUS 3910 Trumpet II (1.5)

MUS 3915 French Horn II (1.5)

MUS 3920 Trombone II (1.5)

MUS 3925 Baritone Horn II (1.5)

MUS 3930 Tuba II (1.5)

MUS 3960 Percussion II (1.5) Advanced study of snare drum, keyboard, percussion, and timpani, as well as an emphasis in performance literature. In addition to weekly lessons, attendance at biweekly studio classes is required. *May be repeated.* Prerequisite: successful completion of lower level credit as determined by departmental examination. An additional fee is associated with this course.

MUS 4000 Special Projects in Music (0-3) *May be repeated for a maximum of 6 semester hours.*

MUS 4010 Symphonic Wind Ensemble (1) A select band which performs original band literature and transcriptions of many famous works at frequent appearances. Membership selected by audition. *May be repeated.*

MUS 4025 University Symphony Orchestra (1: 1 lecture, 0 lab)

Performs concerts of standard and contemporary literature. Members selected by audition. *May be repeated.*

MUS 4040 Music Business Practices (3) Covers copyright, performance rights, client management and interaction. Prerequisite: **ECON 1010**. FA(O).

MUS 4050 University Concert Choir (1) A select choir which performs the best of choral literature in concert. Membership selected by audition. *May be repeated.*

MUS 4060 Senior Recital* (1-2) Full length public recital. Prerequisite: consent of instructor. *Not available for graduate credit.

MUS 4081 Jazz Ensemble 1 (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. *May be repeated.*

MUS 4088 Guitar Ensemble (1) An ensemble that studies and performs a wide range of music written for multiple guitars. Membership selected by audition. *May be repeated.*

MUS 4101 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. Prerequisites: MUS 2112 and MUS 2122. FA(E).

MUS 4115 Instrumentation (3) Characteristics of instruments normally found in band and orchestra. Short writing projects for instrumental choirs, full band and orchestra. Score study. Prerequisites: MUS 1400, MUS 2112 and MUS 2122.

MUS 4125 Form and Analysis (3) Small song forms, rondos, variations and sonata forms, with emphasis on aural analysis and score readings.

Prerequisites: MUS 2112 and MUS 2122 or concurrently. FA(O).

MUS 4130 Choral Arranging (2) Practical arrangements for various choral ensembles for school organizations and church choirs. Prerequisites: MUS 1400; MUS 2112 and MUS 2122 or concurrently. FA(E).

MUS 4181 Advanced Jazz Improvisation (2) Advanced study of jazz improvisation techniques in applied, private lessons. *May be repeated.* Prerequisite: MUS 2181 or consent of instructor. An additional fee is associated with this course.

MUS 4185 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. Prerequisites: MUS 2112 and MUS 2122. SP(O).

MUS 4186 Advanced Jazz-Commercial Arranging (2) Private lessons in composition, arranging, score study, and analysis for various jazz or commercial ensembles based on individual student needs and interests. *May be repeated.* Prerequisite: MUS 4185. An additional fee is associated with this course.

MUS 4190 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. Prerequisite: MUS 1112.

MUS 4195 Max and MSP (3) MIDI/Audio programming, application development, and music composition in the Max/MSP environment. Prerequisite: MUS 2045 or instructor consent.

MUS 4201 Piano Literature Through Beethoven (2) Survey and analysis of music written for clavichord, harpsichord, and piano through the music of Beethoven. Prerequisite: four semesters of MUS 1510 or equivalent. FA(E).

MUS 4202 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. Prerequisite: four semesters of MUS 1510 or equivalent. SP(O).

MUS 4230 Choral Literature (3) Music literature for all choral groups with emphasis on the performance style and interpretative problems of the choral conductor. Prerequisite: MUS 2221. SP(O).

MUS 4235 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 repertoires. Prerequisite: MUS 2222 or consent of instructor. FA(O).

MUS 4240 String Instrument Literature and Pedagogy (2) A survey of literature, instructional materials, and pedagogy of the various string instruments. Prerequisite: 12 semester hours credit on major instrument. FA(O).

MUS 4245 Woodwind Instrument Literature and Pedagogy (2) A survey of literature, instructional materials, and pedagogy of woodwind instruments. Prerequisite: 12 semester hours credit on major instrument. SP(E).

MUS 4250 Brass Instrument Literature and Pedagogy (2) A survey of literature, instructional materials, and pedagogy of brass instruments. Prerequisite: 12 semester hours credit on major instrument. SP(E).

MUS 4255 Percussion Literature and Pedagogy (2) A survey of literature, instructional materials, and pedagogy of percussion instruments. Prerequisites: 12 semester hours credit on major instrument. SP(O).

MUS 4310 Methods of Teaching Music* (2) Prerequisites: admission to Teacher Education Program; double majors must take a methods course for each major; methods should be taken concurrently with MUS 4350 during the Professional Semester. *Not available for graduate credit.

MUS 4320 Methods of Teaching Middle School Music (2) Objectives, materials, subject matter and problems in the teaching of vocal and general music in the junior high school. Prerequisite: MUS 3305 or MUS 3306 or consent of instructor. FA(O).

MUS 4350 Secondary Field Experience II* (1) Experiences in the secondary school classroom that provide the teacher candidate more advanced involvement in the teaching-learning process. Prerequisites: admission to Teacher Education Program; should be taken concurrently with MUS 4310 during the Professional Semester. *Not available for graduate credit.

MUS 4370 Band Instrument Repair (2) A study and practice of band instrument maintenance and repair techniques. Prerequisite: one semester each of woodwind and brass study, or one year of teaching music in public schools. FA(E).

MUS 4381 Jazz Pedagogy (2) Techniques, systems and materials for

teaching of jazz ensembles and jazz improvisation. Supervised conducting experience with a University jazz ensemble. Prerequisite: MUS 2300 and successful completion of the piano proficiency requirement.

MUS 4400 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. Prerequisite: MUS 2410. An additional fee is associated with this course.

MUS 4410 Electronic Music Production Techniques (3) Tools and techniques used in electronic music production, including MIDI, OpenSoundControl, synthesis, sampling, loops, and others. Prerequisite: MUS 2410. An additional fee is associated with this course.

MUS 4420 Advanced Music Technology Practicum (0) Advanced practical experience in audio recording and production, live sound reinforcement, and audio engineering facility management and maintenance. *May be repeated.* Prerequisite: MUS 4410 or concurrently or permission of instructor. *Not available for graduate credit.

MUS 4430 Seminar in Music Technology (2) Advanced individual and/or group work in music technology and audio production. Prerequisites: MUS 4400 and MUS 4410.

MUS 4450 Internship in Music Technology (1-6) Field application of music industry theories and practices in professional music production or recording arts fields. *May be repeated for a maximum of 6 semester hours.* Prerequisite: consent of the music technology coordinator.

MUS 4511 Piano Pedagogy I – The Beginner (3) Goals, methods, and materials for individual and class instruction of beginning piano students. Includes practice teaching and observation. Prerequisite: Two semesters of MUS 1510 or equivalent. FA(O).

MUS 4512 Piano Pedagogy II – The Intermediate Student (3) Goals, methods, and materials for teaching intermediate piano students. Includes practice teaching and observation. Prerequisite: Two semesters of MUS 1510 or equivalent. SPE.

MUS 4513 Piano Pedagogy III – The Advanced Student (3) Goals, methods, and materials of advanced piano teaching. Includes practice teaching and observation. Prerequisite: Two semesters of MUS 1510 or equivalent. FA(E).

MUS 4514 Piano Pedagogy IV – Seminar (3) Intensive individual study in piano pedagogy designed to improve the student's understanding of a selected area of interest. Prerequisite: MUS 4511 or MUS 4512 or MUS 4513 or the equivalent. SP(O).

MUS 4515 Practice Teaching in Piano (3) Supervised teaching of piano students. Course must be repeated. Prerequisites: MUS 4511 and MUS 4512 or the equivalent. SP.

MUS 4600 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. Prerequisite: three years of vocal training. SP(O).

NET - Networking

NET 1000 Seminar in Networking Technology (1) This is a forum to provide students an opportunity to learn current events in networking technologies through the use of guest speakers, open discussions and informative field trips. *May be repeated for a maximum of 2 hours.*

NET 1058 Computer Technologies (3) Introduction to computer architectures and operating systems. Includes PC hardware and DOS/Windows module over basic operating system fundamentals.

NET 1060 Introduction to Networking Basics (3: 2 lecture, 1 lab) Fundamentals including networking and Ethernet fundamentals, media, IP Addressing, routing fundamentals and troubleshooting. Hands-on experiences involving cabling, routers and router configuration. An additional fee is associated with this course.

NET 1061 Routers and Routing Basics (3: 2 lecture 1 lab) Router and routing configuration fundamentals and protocols, access control lists and basic router troubleshooting, hands-on experiences with routers. Prerequisite: NET 1060. An additional fee is associated with this course.

NET 2060 Switching Basics and Intermediate Routing (3: 2 lecture, 1 lab) Advanced IP addressing, intermediate routing protocols, switches, Virtual LANs, Spanning Tree and VLAN Trunking Protocols. Prerequisite: NET 1061. An additional fee is associated with this course.

NET 2061 WAN Technologies (3: 2 lecture, 1 lab) Advanced IP addressing, Port address Translation, WAN technology and terminology,

management, and introduction to optical networking. Prerequisite: NET 2060. An additional fee is associated with this course.

NET 3000 Fundamentals of Wireless Networks (3) A comprehensive overview of wireless technologies, devices, security, design, and best practices with a particular emphasis on real world applications and skills is covered utilizing Cisco Systems hardware. Prerequisite: NET 2060 or concurrent or instructor consent. An additional fee is associated with this course.

NET 3062 Network Design (3) Cisco Systems' design principles, methodology, and structure models for Local Area Networks and Wide Area Networks, including Virtual Private Network and backup design considerations. Prerequisite: NET 2061. An additional fee is associated with this course.

NET 3065 Converged Voice and Data Networks (3) An introduction to Cisco Systems converged voice and data networks as well as the challenges faced by its various technologies and implementing appropriate solutions to those challenges. Prerequisite: NET 2061.

NET 3068 Network Security I (4: 3 lecture 1 lab) Operating system security concepts and techniques. Examines theoretical concepts of security and adopts a practical hands-on approach when examining operating system security techniques. Prerequisite: NET 2061.

NET 3088 Linux Operating Systems (4: 3 lecture, 1 lab) Linux and Open Source Software, as an operating system technology. Installing, configuring, maintaining, and regularly using a Linux operating system. Prerequisite: NET 1058. An additional fee is associated with this course.

NET 4000 Special Projects in Networking (1-3) Investigation of contemporary problems and issues in networking. *May be repeated for a maximum of 6 hours.*

NET 4014 Advanced Technical Problems in Networking (1-4) Individual/Group work on recent developments and advanced technical concepts in networking. Experimentation and technical exploration of content not available through formal course offerings. Written contract /proposal with objectives and written department consent. *Maybe repeated for a maximum of 6 hours.*

NET 4040 Fundamentals of Network Operating Systems (3) Installing, configuring, and administering Network Operating Systems. Prerequisite: NET 1058. An additional fee is associated with this course.

NET 4042 Network Servers and Services (3) Implementing and Administering of Network Infrastructure and Directory Services Infrastructure. Prerequisite: NET 4040 or instructor consent. An additional fee is associated with this course.

NET 4043 Network Services and Infrastructure (3) Advanced Implementing and Administering of Network Infrastructure and Directory Services Infrastructure. Prerequisite: NET 4042 or instructor consent. An additional fee is associated with this course.

NET 4060 Advanced Routing* (3) Topics in VLSM, private addressing, and NAT to optimize address utilization. OSPF, IS-IS, EIGRP, BGP, optimizing routing, and scalability through route filtering and redistribution utilizing Cisco Systems hardware. Prerequisite: NET 2061 or CCNA certification or instructor consent. An additional fee is associated with this course. *Not available for graduate credit.

NET 4061 Remote Access* (3) Remote access topics in WAN technologies such as analog dialup, ISDN BRI and PRI, Frame Relay, and broadband utilizing Cisco Systems hardware. Prerequisite: NET 3058. An additional fee is associated with this course. *Not available for graduate credit.

NET 4062 Advanced Switching* (3) Topics related to reliable, scalable, multilayer-switched LANs utilizing VLANs, VTP, STP, inter-VLAN routing, redundancy, QoS, campus LAN security, and transparent LAN services utilizing Cisco Systems hardware. Prerequisite: NET 4061 or instructor consent. An additional fee is associated with this course. *Not available for graduate credit.

NET 4063 Network Support (3) Topics in Local and Wide Area Network documenting, baselining, and troubleshooting methodologies and tools are used to troubleshoot OSI Layers 1 to 7 utilizing Cisco Systems hardware. Prerequisite: NET 4062 or instructor consent. An additional fee is associated with this course.

NET 4064 Advanced Network Design (3) Cisco Systems design considerations for IPv6, popular routing protocols, the Security Ecosystem, and both Traditional and Integrated Voice architectures. Prerequisite: NET 3062 or NET 4100 or instructor consent. An additional fee is associated with this course.

NET 4100 Network Device Configuration (3: 2 lecture, 1 lab) A comprehensive overview of Cisco Systems device configuration. Prerequisites: Required for non-NET specialist. Not open to NET specialist.

NET 4500 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. Prerequisites: NET 4064 or NET 4100 or instructor consent.

NET 4501 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. Prerequisites: NET 4100 or instructor consent.

NET 4502 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. Prerequisites: NET 4501.

NUR - Nursing

NUR 1700 Introduction to Professional Nursing (1) Introduces the learner to the outcomes assessment curriculum utilized by the Department of Nursing.

NUR 2000 e-Health and Cyber Wellness (2) This course provides an opportunity for students to apply e-health and cyber wellness skills to a self selected wellness project. Open to nursing and nonnursing majors.

NUR 2020 Health: The Women's Perspective (2) An introduction to the physiological, psychosocial, and economic factors that historically have impacted upon the health of women from selected cultural backgrounds with emphasis upon major health care issues currently affecting women. Open to nursing and nonnursing majors.

NUR 2200 Culture and Sustainability in Health (3) Overview of health promotion and disease prevention from a multicultural and sustainability perspective (economic, social, cultural, and environmental) applied to individual, community, and global health.

NUR 2700 Professional Nursing Seminar (1) Introduces the learner to the profession and philosophy of nursing. Focuses on essential competencies for success in the nursing major as defined by program outcomes. Prerequisite: NUR 1700 or may take concurrently with consent of department chair.

NUR 3010 Nursing Leadership in Service Learning (2) Basic information about nursing leadership roles in health care settings. Active participation in a service learning experience. Prerequisite: sophomore standing

NUR 3200 Pathophysiology (4) An examination of common pathophysiological alterations in human structure and function across the lifespan. Successful completion required prior to admission to the Nursing Program. Prerequisites: BIOL 3401 and BIOL 3402.

NUR 3210 Pharmacological Therapies (3) Effects of chemicals used in the prevention, diagnosis and treatment of disease. Incorporation of patient teaching about pharmacological therapeutics. Prerequisites: CHEM 1104; Admission to nursing program for nursing majors.

NUR 3304 Assessment Across the Lifespan (2) Professional nursing observation and physical assessment of the individual in health care delivery systems. Basic for systematic assessment skills used within the nursing process framework. Prerequisites: BIOL 3401 and BIOL 3402 and Admission to nursing program. Corequisite: NUR 3305.

NUR 3305 Assessment Across the Lifespan Lab (1) Application of nursing assessment skills including interviewing, taking health histories, and physical examination. Prerequisites: BIOL 3401 and BIOL 3402. Corequisite: NUR 3304.

NUR 3410 Concepts of Nursing in Wellness (3) An introduction to functional health patterns and lifespan implications for health promotion and disease prevention from a nursing perspective. Prerequisite: Admission to the nursing program. Corequisite: NUR 3411.

NUR 3411 Concepts of Nursing in Wellness Practicum (2) Application of health promotion and disease protection from a nursing perspective. The nursing role is explored within the context of individual, family and community health. Must be taken for pass/fail credit only. Prerequisite: Admission to the nursing program. Corequisite: NUR 3410.

NUR 3412 Technical Nursing Applications I (1) Theory and application of basic nursing and technological skills. Prerequisite: Admission to the nursing program. An additional fee is associated with this course.

NUR 3510 Concepts of Geriatric Nursing (2) An overview of nursing science specific to care of the aging adult with focus on physiologic, emotional, and spiritual aspects of aging. Prerequisite: NUR 3411. Corequisite: NUR 3611.

NUR 3610 Concepts of Adult and Older Adult Nursing I (3) Continuation of nursing process with emphasis on nursing science applicable to individuals experiencing chronic alterations in health. Prerequisites: NUR 3410 and NUR 3411. Corequisites: NUR 3611 and NUR 3612. An additional fee is associated with this course.

NUR 3611 Concepts of Adult and Older Adult Nursing I Practicum (4) Continued application of nursing process with emphasis on nursing science applicable to individuals experiencing chronic alterations in health. Must be taken for pass/fail credit only. Prerequisites: NUR 3410 and NUR 3411. Corequisites: NUR 3610 and NUR 3612.

NUR 3612 Technology Nursing Applications II (2) A performance based course focusing upon current clinical technology applications in nursing and theoretical rationales associated with these applications. Corequisites: NUR 3610 and NUR 3611. An additional fee is assessed for this course.

NUR 4000 Special Projects in Nursing (1-3) Investigation of contemporary problems and issues in nursing by selected individuals or groups.

NUR 4010 Health and Physical Assessment* (3) Builds on systematic assessment, documentation, and effective communication as practiced by RNs. Focuses on techniques of history taking and physical examination in a cross-cultural context throughout the life span. Prerequisite: Admission to the RN-BS option. *Not available for graduate credit.

NUR 4012 Evidence-based Practice/Research (2) An overview of research designed to introduce the student to the intellectual skills needed to identify, conduct, report and critique nursing research studies. Prerequisite: NUR 3411 or NUR 4050.

NUR 4013 Health Policy and Nursing Ethics* (2) An overview of professional issues and ethics in nursing. Exploration of health policies impacting nursing practice. Prerequisite: NUR 3411 or NUR 4050. *Not available for graduate credit.

NUR 4020 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 nonnursing majors.

NUR 4030 Human Sexuality (2) Current theory regarding the biological, cultural, and behavioral parameters of human sexuality. Open to nursing and nonnursing majors.

NUR 4040 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. Prerequisite: meeting general education requirement for technology.

NUR 4050 Professional Nursing Dimensions and Perspectives* (4) Nursing concepts and theories for role transition and outcomes-based learning for the registered nurse. *Not available for graduate credit.

NUR 4052 RN-BS Concepts of Wellness (3) Concept of health patterns occurring throughout the life span and implications of health promotion, disease prevention and health maintenance are viewed from a nursing perspective. Prerequisites: Admission to the RN-BS option, NUR 4050 or concurrently.

NUR 4060 Physical and Health Needs of the Medically Fragile Child (3) This course is designed to assist teachers and nurses in understanding and planning instruction/interventions for students with severe chronic medical and/or physical conditions. Prerequisite: EDSP 2100 or permission of instructor.

NUR 4111 Socio-Economic Factors Impacting Health* (3) Examines selected socio-economic issues and their impact on health. *Not available for graduate credit.

NUR 4200 Pathophysiology* (3) Explores etiology of disease and physiological adaptations that occur in humans with chronic and acute illnesses. Prerequisite: Admission to the RN-BS option. *Not available for graduate credit.

NUR 4210 Wellness for U.S. Veterans and Military Families* (2) Emphasis on unique issues that impact the health of U.S. veterans and military families. Open to nursing and nonnursing majors. *Not available for graduate credit.

NUR 4405 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 nonnursing majors.

NUR 4406 RN-BS Concepts of Community Health Nursing (3) Integrates theories, concepts, and skills of community health nursing in the assessment and care of families, groups, and communities. Corequisite: NUR 4407. Prerequisite: NUR 4050.

NUR 4407 RN-BS Concepts of Community Health Nursing Practicum (2) Application of theories and skills of community health nursing to individuals, families, groups, and communities experiencing physical and psychosocial alterations or potential alterations in health. Must be taken for pass/fail credit only. Prerequisite: NUR 4406 or concurrently.

NUR 4410 Concepts of Maternal-Child Nursing (3) This course is a continuation of the nursing process with emphasis on nursing science applicable to the childbearing and childrearing family. Prerequisites: NUR 3610 and NUR 3611. Corequisite: NUR 4411.

NUR 4411 Concepts of Maternal-Child Nursing Practicum (2) Continuation of nursing process with emphasis on nursing science applicable to the childbearing and childrearing family. Must be taken for pass/fail credit only. Prerequisite: NUR 3611. Corequisite: NUR 4410.

NUR 4510 Concepts of Adult and Older Adult Nursing II (3) Overview of nursing science applicable to the acutely and critically ill adult. Prerequisites: NUR 3610, NUR 3611, NUR 3510, NUR 3612.

Corequisite: NUR 4511. An additional fee is associated with this course.

NUR 4511 Concepts of Adult and Older Adult Nursing II Practicum (3) This course is designed to provide the student the opportunity to apply skills and concepts of nursing practice in the delivery of nursing care to acutely and critically ill adults. Must be taken for pass/fail credit only. Prerequisites: NUR 3610 and NUR 3611. Corequisite: NUR 4510.

NUR 4512 Advanced Technological and Pharmacological Nursing Applications (2) This course is designed to increase knowledge of and ability to apply advanced pharmacology and technology to nursing practice. Corequisites: NUR 4410, NUR 4411, NUR 4510 and NUR 4511. An additional fee is associated with this course.

NUR 4600 Concepts of Nursing Leadership in Management and Community Health/Mental Health (6) Integrates concepts of community and mental health nursing with concepts of nursing leadership and management. Overview of concepts and skills of dynamic and creative leadership and management for high quality nursing. Prerequisites: NUR 4410, NUR 4411, NUR 4510, NUR 4511, NUR 4512. Corequisite: NUR 4601.

NUR 4601 Concepts of Nursing Leadership in Management and Community Health/Mental Health Practicum (6) Application of leadership and management functions along with community and mental health nursing concepts within health care settings. Must be taken for pass/fail credit only. Corequisite: NUR 4600. An additional fee is associated with this course.

NUR 4602 Synthesis of Nursing Concepts (1) Synthesis of program outcomes for transition into nursing practice as a graduate nurse. Prerequisites: NUR 4511, NUR 4512, NUR 4411.

NUR 4608 RN-BS Concepts of Nursing Leadership in Management (4) Integrates theories, concepts, and skills of dynamic, creative nursing leadership within health care settings. Corequisite: NUR 4609. Prerequisites: NUR 4050 and departmental consent.

NUR 4609 RN-BS Concepts of Nursing Leadership in Management Practicum (1) Application of leadership and management theories and skills in diverse settings. Must be taken for pass/fail credit only. Prerequisite: NUR 4608 or concurrently.

PE - Physical Education

PE 1100 Physical Education Orientation, History and Philosophy (2) Orients students to the profession of physical education, its history and philosophy, and to the physical education program at UCM. FA, SP.

PE 1101 Introduction to Exercise Science (3) Orients students to the academic discipline of Exercise Science and the professions related to Exercise Science and Corporate Fitness.

PE 1120 Microcomputer Applications in Physical Education, Exercise and Sport Science (2) Prepares the undergraduate physical education major to develop and use microcomputer multi-media applications specific to the discipline of physical education, exercise/sport science.

PE 1200 Fitness Through Activity and Sport (1) Develops concepts of personal physical fitness as they relate to optimal healthful living.

PE 1203 Aerobic Conditioning (1) Preventive and corrective cardiovascular activities and programs.

PE 1204 Stress Management (1) Causes, effects and coping techniques vital to living successfully with personal stress and tension.

PE 1205 Aerobic Dance for Fitness (1) Aerobic routines for cardiovascular fitness.

PE 1206 Fitness for a Global Community (3) Students will develop a global perspective on developing a healthy lifestyle through development of wellness including but not limited to: physical fitness; exercise; nutrition and mental wellness. Through a laboratory experience students will engage in global fitness activities. Includes scheduled lab.

PE 1210 Badminton (1)

PE 1220 Beginning Bowling (1) Fundamentals and participation in bowling. (Recommended for the handicapped.) An additional fee is associated with this course.

PE 1230 Beginning Golf (1) An additional fee is associated with this course.

PE 1241 Beginning Tennis (1)

PE 1251 Beginning Swimming (1)

PE 1270 Ballroom Dance I (1) Techniques in leading/following, basic positions and steps in the American waltz, fox trot, Lindy (single, double, triple), polka, and schottische.

PE 1271 Volleyball (1)

PE 1273 Ballroom Dance II (1) Techniques in leading/following, basic steps and positions in the cha-cha-cha, rumba, samba, tango, and mambo. Prerequisite: PE 1270.

PE 1280 Basketball (1)

PE 1450 Growth and Development in Elementary Physical Education (3) The sequential and developmental phases of children and the relationship of movement to growth and development. FA, SP.

PE 1800 Functional Anatomy (3) Detailed study of the structure of the human body from a functional perspective. Emphasis on gross anatomy of the musculoskeletal, cardiovascular, respiratory and nervous systems.

PE 2000 Special Activities in Physical Education (1-3) Group study of lifetime physical activities in special areas of interest. *May be repeated for a maximum of 5 semester hours.*

PE 2100 Foundations of Teaching Physical Education (3) Introduces students to basic instructional strategies utilized in Physical Education. Course is a pre-cursor to Physical Education K-12 Teaching Program requirements. FA, SP.

PE 2200 Weight Training (1)

PE 2220 Weight Control (1) The relationship between diet, exercise, and weight and the planning of weight control programs based on individual needs.

PE 2230 Beginning Fencing (1)

PE 2290 Analysis and Teaching of Innovative Activities (2) Knowledge, skill development, teaching cues, skill analyses and teaching skills of innovative activities.

PE 2303 Analysis and Teaching of Aerobic Conditioning (2) Basic skills to participate in and instruct in the area of aerobic conditioning.

PE 2410 Movement Skills and Activities for Primary Grades (2) Knowledge, understanding, and applications in teaching motor skills.

PE 2450 Motor Learning and Control (3) Parameters which influence the acquisition and control of movement skills. Conditions of practice as well as those predominant factors which effect motor learning, i.e., feedback, transfer, motivation, memory and attention. Prerequisite: PE 1450. FA, SP.

PE 2472 Communicating Ideas on Sport (3) Provides avenues to develop communication skills while exploring issues in sport.

PE 2800 Biomechanics (3) Intensive investigation and analysis of human movements. The basic mechanical principles of force, motion, and aerodynamics as related to fundamental physical skills and their application to sports and dance. Prerequisites: MATH 1111 with a C grade or better. FA, SP.

PE 2850 Foundations of Exercise Physiology (3) The study of cardiovascular, muscle, and nerve physiology. Prerequisite: PE 1800. An additional fee is associated with this course. FA, SP.

PE 2900 Essentials of Personal Training (3) Provide theoretical knowledge and practical skills in preparation for a national certification in personal training. Prerequisite: PE 1800.

PE 3200 Intermediate Bowling (1) More advanced fundamentals and participation in bowling.

PE 3210 Outdoor Skills I (3) Introduction to experiential education through outdoor skills. FA.

PE 3220 Advanced Beginning/Intermediate Swimming (1)

PE 3270 Intermediate Golf (1) Advanced skills instruction in putting, approach shots, wood shots and playing experience. Prerequisite: PE 1230. An additional fee is associated with this course.

PE 3280 Analysis and Teaching of Team Activities (3) Knowledge, skill development, teaching cues, skills analyses and teaching skills of team activities. Prerequisite: PE 3330 or PE 2290.

PE 3310 Analysis and Teaching of Physical Training (3) Basic skills to participate in and instruct in the area of aerobic conditioning and weight training. Prerequisite: PE 1800. FA, SP.

PE 3320 Analysis and Teaching of Elementary Skills (3) Pre-service teacher training in elementary skill development, critical elements, cues, skill analysis and instructional design. Prerequisites: PE 2100 and PE 2450. FA, SP.

PE 3315 Analysis and Teaching of Outdoor Leisure Skills (1) Introduction to orienteering and angling. Prerequisite: physical education majors only.

PE 3330 Analysis and Teaching of Secondary Skills (3) Knowledge, skill development, teaching cues, skills analysis and teaching skills in the secondary setting. Prerequisite: PE 2100 and PE 2450. FA, SP.

PE 3340 Analysis and Teaching of Lifetime Activities (3) Knowledge, skill development, teaching cues, skill analysis and teaching skills involved with physical education. Prerequisite: PE 2100. FA, SP.

PE 3420 Elementary School Physical Education Activities (2) Theory and practice in stunts and tumbling, self-testing activities, rhythms, skills, and games.

PE 3430 Creative Dance and Rhythms for the Elementary School (2) Rhythmical activities in the elementary school, emphasizing basic movement and movement exploration. Prerequisite: 1 semester hour of dance.

PE 3500 Teaching and Management in PreK-12 Physical Education (3) An analysis of the teaching and learning process emphasizing behavior, time, space, equipment and people management in dynamic environments. Corequisite: PE 3550. Prerequisite: admission to Teacher Education Program. This course should be taken no earlier than one semester prior to student teaching. FA.

PE 3550 Practicum in PreK-12 Physical Education (3) Fifty total hours (25 elementary, 25 secondary) of co-teaching with 2 public school physical education teachers. Corequisite: PE 3500. Prerequisite: admission to Teacher Education Program. This course should be taken no earlier than one semester prior to student teaching.

PE 4000 Special Projects in Coeducational Physical Education (1-5) Individual or group study of problems in special areas of interest. *May be repeated for a maximum of 5 semester hours.*

PE 4210 Outdoor Skills II* (3) Application of skills and knowledge to successfully participate and teach outdoor environmental experiential learning techniques and skills. Prerequisite: PE 3210. *Not available for graduate credit.

PE 4340 Adapted Physical Education (3) A study whereby the full educational services of physical education may be made available to atypical students on all school levels. FA, SP.

PE 4341 Physical Activity and Special Populations (3) Content to include exercise prescription for special populations regarding arthritis, diabetes, COPD, Cancer, CAD, etc. Prerequisite: PE 4850.

PE 4350 Physical Education for Special Education (2) Activities and program development as an integral tool in the physical education of the mentally retarded, learning disabled, and emotionally disturbed.

PE 4390 Evaluation Procedures in Physical Education (3) The theory of measurement in health and physical education, including the selection, administration, and evaluation of appropriate tests and the interpretation of the results.

PE 4450 Techniques of Teaching Physical Education Activities in the Elementary Schools* (3) Effective teaching knowledge, skill, and techniques for physical education programs at the elementary level. Corequisite: PE 4460. Prerequisites: PE 3310, PE 3320, PE 3330, PE 3340 and admission to Teacher Education Program. This course should be taken no earlier than one semester prior to student teaching. *Not available for graduate credit. FA.

PE 4460 Techniques of Teaching Physical Education Activities in Middle Schools and High Schools* (3) Effective teaching knowledge, skill and techniques for physical education programs at the middle and high school levels. Corequisite: PE 4450. Prerequisites: PE 3310, PE 3320, PE 3330, PE 3340 and admission to Teacher Education Program. This course should be taken no earlier than one semester prior to student

teaching. *Not available for graduate credit. FA.

PE 4500 Football Officiating* (1) Lectures, readings, class discussions, and field experience in the officiating of intramural, school, and college football games. *Not available for graduate credit.

PE 4510 Basketball Officiating* (1) Lectures, readings, class discussions, and field experience in the officiating of intramural, school, and college basketball games. *Not available for graduate credit.

PE 4550 Introduction to Coaching (3) Students are introduced to coaching as a profession. This general overview of coaching addresses standards, responsibilities, philosophy, and issues in coaching.

PE 4551 Fundamental Techniques in Coaching (3) Students are introduced to coaching as a profession. This general overview of coaching addresses standards, responsibilities, philosophy, and issues in coaching.

PE 4560 Coaching and Sport Analysis (2) Students perform an in-depth study of the theory and coaching of a particular sport. Prerequisites: PE 4550 and PE 4551.

PE 4561 Coaching Practicum (1) The student completes a 100-hour (minimum) practical experience observing and coaching. Prerequisites: PE 4550 and PE 4551.

PE 4590 Administration of Interscholastic Athletics (2) Organization and management of a program of competitive athletics for schools and colleges.

PE 4740 Legal Liability in Fitness/Wellness, Physical Education, Recreation and Sport Settings (2) Acquaints the student with legal research and basic concepts of negligence in governing the school sport and fitness industries. FA, SP.

PE 4760 Curriculum and Assessment in Physical Education* (4) Curriculum design and assessment procedures are introduced to formulate appropriate learning experiences and assessments in Physical Education. Prerequisite: admission to Teacher Education Program. *Not available for graduate credit. FA, SP.

PE 4765 Internship* (6) A 400-hour field experience applying exercise science or health studies principles and theories in an approved setting. Prerequisites: Departmental approval and must have completed two-thirds of major courses in area of study. *Not available for graduate credit. FA, SP, SU.

PE 4830 Psychological Aspects of Physical Education (2) An application of psychological principles to physical education. FA, SP.

PE 4840 Social Aspects of Physical Activity (2) The application of sociological concepts and theories to the study of physical education and sport in American society. FA, SP.

PE 4850 Assessment and Evaluation of Fitness/Wellness* (3) The selection, administration, and interpretation of test and protocols for fitness assessment. Prerequisite: PE 2850. *Not available for graduate credit. FA, SP.

PE 4860 Fitness Programming and Implementation* (3) Planning, developing and implementing a fitness/wellness program. Prerequisites: PE 2900 and PE 4850 or concurrently. *Not available for graduate credit.

PE 4870 Clinical Exercise Physiology* (3) This course is designed to teach undergraduate exercise science students to properly conduct a resting and exercise stress ECG test, and interpret the results. Prerequisites: PE 2850 and PE 4850. *Not available for graduate credit.

PE 4880 Methods of Teaching Physical Education* (2) Prerequisites: admission to Teacher Education Program; double majors must take a methods course for each major; methods should be taken concurrently with PE 4885 during the Professional Semester. *Not available for graduate credit. FA, SP.

PE 4885 Secondary Field Experience II* (1) Experiences in the secondary school classroom that provide the teacher candidate more advanced involvement in the teaching-learning process. Prerequisites: admission to Teacher Education Program; should be taken concurrently with PE 4880 during the Professional Semester. *Not available for graduate credit. FA, SP.

PHIL - Philosophy

PHIL 1000 Introduction to Philosophy (3) An introductory survey of core philosophical questions and positions in metaphysics, ethics, epistemology, and the theories of the mind.

PHIL 1400 Deductive Logic (3) An introduction to the elements of formal logic, emphasizing the principles, forms, and methods of valid reasoning.

PHIL 1410 Critical Thinking (3) An introduction to the basic principles

and patterns of good reasoning, emphasizing informal argument analysis and practical critique.

PHIL 2300 Ethics (3) A systematic overview of various moral theories and their applications in a variety of specific contexts and cases.

PHIL 3120 History of Philosophy I: Ancient Thought (3) This course focuses on problems, positions, and arguments in ancient philosophy from the pre-Socratics to the Middle Ages, with special emphasis on Plato and Aristotle.

PHIL 3130 History of Philosophy II: Enlightenment Thought (3) This course focuses on problems, positions, and arguments in epistemology, metaphysics, and social and political philosophy in the Age of Enlightenment.

PHIL 3500 Aesthetics (3) This course explores the philosophy of art from Plato to the present, addressing topics such as the nature of art, beauty, and aesthetic truth.

PHIL 3660 Studies in Literature and Philosophy (3) An interdisciplinary course devoted to examining the relationship between philosophy and literature. *May be repeated with different foci for a maximum of 6 semester hours.*

PHIL 3800 Philosophy of Science and Technology (3) This seminar addresses the nature of scientific theorizing, the relationship of the scientific method to rationality and progress, and technology's relation to science and society.

PHIL 4250 Special Projects in Philosophy* (3) Senior seminar devoted to a core problem, theory, or figure(s) in philosophy. Prerequisite: Senior standing or permission of the instructor. *Not available for graduate credit.

PHIL 4600 Special Topics in Philosophy* (1-3) This course is devoted to a particular topic of philosophical study. *May be repeated with different topics for a maximum of 6 semester hours.* *Not available for graduate credit.

PHIL 4710 Philosophy of Religion* (3) This seminar analyzes the concept of religion, arguments for the existence of god, the problem of evil, and the nature of religious language and communities. *Not available for graduate credit.

PHOT - Photography

PHOT 1203 Introduction to Photography (3) Introduction of essential aesthetic and technical principles as applied to photographic communication. Basic digital camera operation, basic digital image processing and output, and basic image design and composition are covered. Students must own a digital camera to enroll. Not for Photo majors or minors. An additional fee is associated with this course.

PHOT 1210 Foundations of Professional Photography (3) A foundation course in photographic aesthetics and technologies which provides fundamental knowledge and skills required for aspiring professionals. Professional level digital SLR camera functions and operation, essential digital image processing and output, and image design and composition are established. Students must furnish an approved digital SLR camera to enroll. Corequisite: PHOT 1211. An additional fee is associated with this course.

PHOT 1211 Image Critique (1) Explanations, demonstrations, and formal image critique of assignments associated with the Foundations of Professional Photography course. Images are analyzed and evaluated based on technical merit and on the formal elements and principles of design in concert with current theoretical and conceptual trends in photography. Corequisite: PHOT 1210.

PHOT 1216 Photographer's Forum 1 (1) Seminar for student portfolio presentation and for study of current events in photography through open discussions, activities, and outside speakers. An additional fee is associated with this course.

PHOT 1230 Digital Imaging (3) An introduction to current digital image editing methods, providing the photographer with the fundamental skills and knowledge needed to process their images. Instruction includes image correction, enhancement, and manipulation. Digital imaging is explored as a method for both improving imagery and as a sophisticated creative tool. An additional fee is associated with this course.

PHOT 2200 Editorial Photography (3) Photographic techniques relevant to creating aesthetically sensitive narrative images in a variety of media environments including illustration, documentary, sports, and event photography are presented and experienced. The aesthetic principles of visual design and communication are explored relative to a media

context in order to develop effective narrative and a personal creative vision. Prerequisites: PHOT 1210 and PHOT 1211. An additional fee is associated with this course.

PHOT 2210 Studio Photography (3) Studio experiences involving: lighting, visual perception, environment, historical studio genres, aesthetics, and photographic theory. Prerequisites: PHOT 1210 and PHOT 1211. An additional fee is associated with this course.

PHOT 2215 History of Photography (3) This course surveys the social and technological developments of photography's beginning to contemporary imaging styles, photographers, and systems. Course includes discussion, written assignments, and critiques concerning the comparative analysis of various periods, schools, and particular individuals and their contributions to the art and science of photography. An additional fee is associated with this course.

PHOT 2216 Photographer's Forum 2 (1) Seminar for student portfolio presentation and for study of current events in photography through open discussions, activities, and outside speakers. Prerequisite: PHOT 1216. An additional fee is associated with this course.

PHOT 2220 Digital Workflow (3) This course is a comprehensive examination of the procedural, aesthetic, and technical aspects of digital photography from conceptualization, through final output, to image archiving. The intent of software exploration and use is to establish an efficient and repeatable process for image and data management. Prerequisites: PHOT 1210 and PHOT 1211. An additional fee is associated with this course.

PHOT 2230 Color Imaging (3) An in-depth experience in exposing, manipulating and printing color images is provided. The course is designed to develop a more sophisticated understanding of color from both a perceptual and design framework. How does color communicate and what aesthetic decisions are exercised when making color images are questions addressed. Prerequisites: PHOT 1210 and PHOT 1211. An additional fee is associated with this course.

PHOT 2240 Nature Photography (3) The natural environment, including photographing wildlife and landscape subjects, is explored in-depth. In-class lectures and demonstrations are augmented with extensive field work. Techniques and tools unique to the genre are covered. An appreciation of place and time and our relation to the natural world is developed, while methods of illustrating this essence are fostered by employing the elements and principles of design as tools for composition. Prerequisite: PHOT 1210. An additional fee is associated with this course.

PHOT 2250 Portrait Photography (3) A course providing instruction and experiences in portrait photography with an emphasis on professional techniques used to create effective images. Introduction to conceptual approaches that stress capturing essential aspects of personality/identity in addition to likeness. The operation of specialized equipment utilized both in the studio and on location are covered, including professional photographic lighting systems. Prerequisites: PHOT 1210, PHOT 1211. An additional fee is associated with this course.

PHOT 2270 Darkroom Photography (3) Applied theories for controlling tone reproduction in the black and white film processes are explored. Emphasis is on the unique imaging properties of analog chemical photosensitive systems and how this is controlled through exposure and development. The creative and aesthetic potential of the medium is explored, fostering personal artistic growth and understanding. Prerequisites: PHOT 1210, PHOT 1211. An additional fee is associated with this course.

PHOT 3216 Photographer's Forum 3 (1) Seminar for student portfolio presentation and for study of current events in photography through open discussions, activities, and outside speakers. Prerequisite: PHOT 2216. An additional fee is associated with this course.

PHOT 3220 Advanced Digital Imaging (3) This course is an advanced study of digital image editing modalities used to manipulate, modify, composite, and create images for photographic illustration. An emphasis is placed on expanding beyond personal boundaries to use technology to produce fresh and sophisticated visual communication. Prerequisites: PHOT 1210, PHOT 1211, PHOT 1230 and PHOT 2220. An additional fee is associated with this course.

PHOT 3255 Location & Event Photography (3) The course provides advanced instruction and practice in location and event photography using professional lighting techniques, product development and marketing techniques. Review of current trends in location photography aesthetics, techniques and approaches. Prerequisites: PHOT 1210, PHOT 1211,

PHOT 2210 and PHOT 2250. An additional fee is associated with this course.

PHOT 3260 Digital Media (3) This course develops knowledge and skills in planning, researching, formatting, sequencing, and using critical aesthetic judgment in order to produce an effective professional web and networked based visual presence. Prerequisites: PHOT 1210, PHOT 1211, PHOT 1230. An additional fee is associated with this course.

PHOT 3270 Creative Photography (3) The course consists of an analysis of a variety of processes and influences upon which the student can draw to develop their photographic sensibilities of creative self-expression. An emphasis is placed on the value of experimentation and creative synergies to develop conceptual approaches to photography through a project-based body of work. Prerequisites: PHOT 1210, PHOT 1211, PHOT 1230 and PHOT 2220. An additional fee is associated with this course.

PHOT 3280 Advanced Studio (3) Advanced investigation into historical and contemporary photographic theory within the studio environment: including visual analytical problem solving, visual semiotics, aesthetics, criticism, and applied theory in lighting and set design. Prerequisites: PHOT 1210, PHOT 1211 and PHOT 2210. An additional fee is associated with this course.

PHOT 3290 Architectural Photography (3) The imaging of man-made structures to convey the experience of being in and around a built environment is covered. Both exterior and interior subjects are experienced, with the elements and principles of design informing photographic composition. Work ranging from documentary to expressive artistic styles are explored, along with requirements specific to the specialty, including perspective control and mixed lighting conditions. Prerequisites: PHOT 1210, PHOT 1211, PHOT 1230 and PHOT 2210.

PHOT 4214 Independent Studies (1-3) A mentored course for student initiated research and discovery on advanced technical, aesthetic, or conceptual issues in photography. The student identifies the topic, and writes a detailed proposal of the purpose and outcomes of the project. This course is designed to provide an investigation of content not available through normal course offerings. *May be repeated for a maximum of 6 semester hours.* Prerequisites: minimum GPA of 2.5, written contract/proposal with objectives and written department consent.

PHOT 4215 Critique of Contemporary Photography (3) This course surveys the modern development of photography beginning with 1900 to contemporary imaging styles, photographers, and systems. Course includes on-line discussion, written assignments, and critique concerning the comparative analysis of various periods, schools of thought, and particular individuals. Prerequisite: PHOT 2215.

PHOT 4216 Photographer's Forum 4* (1) Seminar for student portfolio presentation and for study of current events in photography through open discussions, activities, and outside speakers. Prerequisite: PHOT 3216. An additional fee is associated with this course. *Not available for graduate credit.

PHOT 4230 Business Management for Photographers (3) Explore the reality of owning and/or running a successful photographic business built on strong management principles, ethical standards, and other professional practices. Student assignments, reading materials, and group discussions will focus on producing individual business plans and supportive material for projected photography specialty areas. Prerequisite: senior standing. An additional fee is associated with this course.

PHOT 4240 Investigative Photography (3) This course explores the myth that a visual image reveals meanings located in the subject represented. The idea of photographic truth is considered within concrete examples such as forensic, documentary, and scientific applications. Photography, as a recorder of light, simultaneously investigates reality and investigates the method of investigating that reality. This leads to novel seeing, producing a vision of things previously unseen, or abstract. Prerequisites: PHOT 1210, PHOT 1211 and PHOT 2220.

PHOT 4250 Advanced Portrait Photography (3) This course further develops the student's skills in portrait photography involving both studio and location. An emphasis is placed on sophisticated lighting techniques and conceptual approaches used to communicate essential aspects of personality and identity. Prerequisites: PHOT 1210 and PHOT 1211 and PHOT 2250. An additional fee is associated with this course.

PHOT 4260 Photography, Advertising and Society (3) This is an

exploration of the use, context, and meaning of photography within advertising, mass media, and society. In addition to creating images, students will investigate how images in advertising and mass media are used and consumed by society. Effects on image meaning created by varying conceptual approaches, as well as the manipulation of the elements and principles of design are considered. Prerequisite: PHOT 3280. An additional fee is associated with this course.

PHOT 4270 Portfolio (3) Culminating experience in photography providing for the creation and production of a professional image portfolio to reflect personal career goals. Prerequisite: PHOT 3216 and senior standing or consent of the instructor. An additional fee is associated with this course.

PHYS - Physics

PHYS 1005 Survival Skills for College Physics (2) Preparatory course to enhance success in College Physics by exploring concepts of physics and further developing algebraic and logic skills for solving applied physics problems. ONL.

GEPHYS 1101 College Physics I (4: 3 lecture, 1 lab) Properties of matter, mechanics, energy, heat, and waves. Laboratory required. Prerequisites: **GE**MATH 1111 or consent of the instructor.

PHYS 1102 College Physics II (4: 3 lecture, 1 lab) Electricity, magnetism, light, and atomic and nuclear physics. Laboratory required. Prerequisite: **GE**PHYS 1101.

GEPHYS 1103 Introduction to the Sciences: Physics (3) An introduction to physics. Topics include mechanics, energy, heat, sound, electricity, magnetism, light, atomic and nuclear physics, relativity, and astrophysics. Laboratory not included. Not available to those with credit in **GE**PHYS 1104.

GEPHYS 1104 Introduction to the Sciences: Physics (4: 3 lecture, 1 lab) An introduction to physics. Topics include mechanics, energy, heat, sound, electricity, magnetism, light, atomic and nuclear physics, relativity, and astrophysics. Laboratory included. Not available to those with credit in **GE**PHYS 1103.

PHYS 1123 Elementary Physics Laboratory I (1) Laboratory experiments in mechanics, heat, and waves. Does not fulfill requirements for any physics degree. Prerequisite: PHYS 2123 or concurrently.

PHYS 1124 Elementary Physics Laboratory II (1) Laboratory experiments in electricity, magnetism, optics, and radioactivity. Does not fulfill requirements for any physics degree. Prerequisite: PHYS 2124 or concurrently.

PHYS 2020 Analytic Methods for Physics and Engineering (3) Technique development in and application of topics necessary to describe physical problems in the physics and pre-engineering curricula including coordinate systems, vectors and vector operators, series expansions, complex numbers, partial derivatives, special functions, and ordinary differential equations. Prerequisite: **GE**PHYS 2121.

GEPHYS 2121 University Physics I (5: 4 lecture, 1 lab) Kinematics, dynamics, statics, rotational motion, elasticity, periodic motion, fluids, and heat. Laboratory required. Prerequisite: **GE**MATH 1151 with a grade of C or better or consent of instructor.

PHYS 2122 University Physics II (5: 4 lecture, 1 lab) Wave motion, sound, electricity and magnetism, electromagnetic waves, and optics. Laboratory required. Prerequisites: **GE**PHYS 2121 and MATH 1152.

PHYS 2123 University Physics I (4) Kinematics, dynamics, statics, rotational motion, elasticity, periodic motion, fluids, and heat. Laboratory not included. Does not fulfill requirements for any physics degree. Prerequisite: **GE**MATH 1151 with a grade of C or better or consent of instructor.

PHYS 2124 University Physics II (4) Wave motion, sound, electricity and magnetism, electromagnetic waves, and optics. Laboratory not included. Does not fulfill requirements for any physics degree. Prerequisites: **GE**PHYS 2121 or PHYS 2123; MATH 1152.

PHYS 3012 Electrical Measurements Laboratory (2) Basic electrical and magnetic measurements from DC to radio frequencies, including electric transients and calibration procedures. Introductory experiments using analog and digital circuits. Corequisite: PHYS 3311.

PHYS 3020 Special Topics in Physics (1-4) Study, interpretation, and discussion of special topics and problems in physics. *May be repeated for a maximum of 6 semester hours.* Prerequisite: consent of instructor.

PHYS 3040 Practicum in Physics Laboratory Management (1.5) The

student will assist with all aspects of an undergraduate physics laboratory at the appropriate level, including answering student questions, preparing equipment, and grading. The student will also be expected to prepare and present two or three introductory lectures for the laboratory, critique materials and methods presently in use, and suggest, design, and produce written materials for a new experiment. *May be repeated for a maximum of 3 semester hours.* Prerequisite: consent of department.

PHYS 3080 Advanced Physics Laboratory (1-3) Experimental activities in optics, solid state, atomic, and nuclear physics. Modern instrumentation and analysis methods. *May be repeated for a maximum of 6 semester hours.* Prerequisite: PHYS 2122.

PHYS 3211 Analytical Mechanics I (3) Cartesian and curvilinear coordinate systems, vector operations, conditions of equilibrium, equivalent force systems, moments, couples, centroids, trusses, shear force and bending moment, friction. Prerequisites: **PHYS 2121** and **MATH 1152**.

PHYS 3311 Electric Circuit Theory (3) The basic principles of circuit analysis including Kirchhoff's laws, network theorems, equivalent circuits, transients, and AC circuits. Prerequisite: PHYS 2122.

PHYS 3511 Modern Physics I (3) Special and general relativity; quantized nature of energy and matter; structure and properties of the atom; matter waves; uncertainty principle; Schrödinger equation and its applications. Prerequisites: PHYS 2122 and MATH 2153 or concurrently. Corequisite: PHYS 3080.

PHYS 3512 Modern Physics II (3) Applications of basic and intermediate level quantum physics to atoms, molecules, nuclei, solids, and elementary particles. Includes quantum statistical physics. Prerequisites: PHYS 3511 and MATH 2153. Corequisite: PHYS 3080.

PHYS 3611 Optics (3) Wave optics, including the principles of superposition, interference, diffraction, polarization, and dispersion. Introduction to quantum optics. Prerequisites: PHYS 2122 and MATH 2153. Corequisite: PHYS 3080.

PHYS 4212 Analytical Mechanics II (3) Using a vector analysis, a study is made of kinematics; motion of a particle; kinetics of rigid bodies; work and energy, impulse and momentum; impact. Prerequisites: PHYS 3211 and MATH 2153.

PHYS 4312 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. Prerequisites: PHYS 2122 and MATH 2153.

PHYS 4411 Thermodynamics (3) Properties of gases, kinetic theory of gases; laws of thermodynamics; entropy and introduction to statistical thermodynamics. Prerequisites: PHYS 2122 and MATH 2153 or concurrently.

PHYS 4512 Introduction to Quantum Mechanics (3) Experimental basis; fundamental postulates; Schrödinger wave equation; superposition of states; calculation of energy, position, momentum; hydrogen atom; identical particles; perturbation theory. Prerequisites: PHYS 3511 and MATH 2153.

PHYS 4513 Solid State Physics (3) Crystal structure and diffraction; thermal, electrical, and magnetic properties; band theory; Brillouin zones. Corequisites: PHYS 3512; PHYS 3080.

PHYS 4711 Atomic and Nuclear Physics (3) Designed to use introductory quantum concepts and techniques as applied to the analysis of atoms and nuclei. Prerequisite: PHYS 3512.

PHYS 4911 Special Problems in Physics (1-3) Individual work under supervision of a staff member. Problems may be undertaken in any phase of physics. *May be repeated for a maximum of 6 semester hours.*

POLS - Political Science

POLS 1244 Workshop in Politic Science (3) Provides students with experiential learning opportunities using simulations.

PHYS 1500 Introduction to Politics (3) A survey of the determinants defining the relationship of the individual to the political environment and the political system. The primary focus is on the three fundamental levels of politics: the individual, the state, and the international community.

PHYS 1510 American Government (3) The nature, philosophical bases, development, functions, structure, and processes of the government and politics of the United States and of Missouri. Emphasis on and analysis of the nature and development of the provisions and principles of the Constitution of the United States and of Missouri.

PHYS 2511 State Government (3) Administrative, legislative, and judicial

activities of state governments and their relationships to national and local governments with special emphasis on state and local governments in Missouri.

POLS 2520 Comparative Government and Politics (3) Introduction to major forms of government throughout the world.

PHYS 2530 World Politics (3) Introduction to international relations with specific focus on the nature and causes of war, conflict resolution, political, social, economic, and military issues in international politics.

PHYS 2535 Model United Nations (3) Students will gain hands-on experience of the organizational structure, policies and procedures of the United Nations through course work and conference attendance.

POLS 2540 Survey of Political Theory (3) Examines concepts such as justice, civil disobedience, equality, liberty, etc., and how they are defined by major political theorists from Plato to the present.

POLS 2550 Political Parties and Interest Groups (3) The theory, principles, structures, and functions of interest groups and political parties in the American political system.

POLS 2580 Public Law and the Judicial Process (3) Examination of the nature of law, the organization and staffing of courts, judicial policymaking, the Supreme Court's decision-making process, statutory and constitutional interpretation, and the impact of judicial decisions.

PHYS 2581 Trial Advocacy (3) Provides training in trial advocacy techniques and instruction on the practical workings of the court system.

POLS 3520 Asian Government and Politics (3) A comparative study of the major political systems of Asia, focusing on political institutions, policymaking, domestic and foreign policy as well as persistent policy issues, challenges and political dynamics.

POLS 3521 Latin American Government and Politics (3) A comparative study of the political system of the Latin American countries.

PHYS 3522 Modern East Asia (3) A survey of the cultures, histories, societies, economies, and political systems of the major countries of Asia. Specific focus is on the events and resulting changes within the region during the past century.

POLS 3523 Modern Sub-Saharan Africa (3) A comparative study of development issues in Sub-Saharan Africa. Topics include democratization, political culture, ethnicity and the role of the international community in Africa.

POLS 3530 International Organizations (3) The role of international organizations in international relations and collective security with specific emphasis on the United Nations, the European Union and other regional organizations.

POLS 3531 Five Wars of Globalization (3) This course focuses of factors of globalization that have created opportunities for individuals, corporations, and governments to utilize technology, communication, and transportation to engage in illegal activities for financial gain.

POLS 3541 Contemporary Political Theory (3) Examines recent debates about the meaning of democracy, citizenship, civil society, and community in the contemporary era of increasingly diverse and interconnected nation-states.

POLS 3550 Public Opinion and Mass Media (3) Examines the forces that shape, and techniques used to measure, public opinion, also focusing on the media as a link between public opinion and government.

POLS 3551 Race and Ethnic Politics in the United States (3) Survey of the political mobilization, participation, and issues facing Latinos, African Americans, Asian Americans, Native Americans, and European ethnic groups in U.S. politics.

POLS 3553 Women and Politics (3) The course examines a variety of social, political, and economic issues that affect women in the United States and around the world.

POLS 3560 Research Methods in Political Science (3) This course will acquaint students with a wide variety of research methods used to analyze political phenomena, concentrating on those approaches that are both quantitative and nonquantitative, including case studies, interviewing, field research, and a lab component utilizing packaged computer programs for statistical analysis.

POLS 4511 Public Policy (3) The course examines the public policymaking process as well as the forces that shape US policy in the context of globalization. Permission from instructor must be obtained to take this course for graduate credit.

POLS 4520 Principles of International Development (3) Problems of development in the developing nations of the world and the concepts and theories for their comparative analysis.

POLS 4521 Culture and Politics of the Middle East (3) The influence of culture on the politics, political systems and issues of the Middle East.

POLS 4530 International Law (3) An examination of its nature, history, philosophies, and basic rules as found in treaties, court decisions, customs, and other sources.

POLS 4531 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 considered.

POLS 4532 International Relations of East Asia (3) Study of contemporary regional politics of East Asia focusing on political culture, nationalism and the foreign policies of the United States, Russia, China and Japan as they relate to security challenges in East Asia.

POLS 4550 Politics in Europe (3) An examination of the theory, history, and institutional structure of several European countries and the European Union.

POLS 4552 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.

POLS 4555 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.

POLS 4570 Public Administration (3) A broad and basic study of public administration in the United States.

POLS 4571 Municipal Administration (3) Principles of municipal administration as they operate in the United States under the various forms of municipal governments.

POLS 4580 American Constitutional Law (3) An interpretation of our constitutional heritage, including the growth of federal judicial power and the role of the Supreme Court.

POLS 4581 Civil Rights and Liberties (3) Except for the First Amendment, this course examines individual rights and liberties found within and outside of the Constitution.

POLS 4583 First Amendment (3) This course examines First Amendment controversies, including flag burning, obscenity, libel, hate speech, free press vs. fair trial, and freedom of and from religion.

POLS 4590 Special Projects in Political Science (1-6) Study, interpretation, and discussion of special topics and problems in political science. *May be repeated for a maximum of 6 semester hours.* Prerequisite: consent of the instructor.

POLS 4591 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. *May be repeated for a maximum of 6 semester hours.* Prerequisite: consent of department.

POLS 4592 Problems in National, State or Local Government (1-3) Special problems in government, selected by student and instructor. *May be repeated for a maximum of 6 semester hours.* Prerequisite: consent of the instructor.

POLS 4601 Senior Seminar in Political Science* (3) This capstone course allows students to assimilate and present their knowledge of the field of political science in a final research project/paper. Prerequisite: POLS 3560. *Not available for graduate credit.

PSY - Psychology

PSY 1000 Orientation to Psychology (1) Introduction to the discipline of Psychology, focusing on strategies to promote success in the major. Students learn about expectations for the major and career options. Prerequisite: Psychology major. FA, SP.

PSY 1100 General Psychology (3) A general introduction to the science of behavior, surveying the broad field of psychology and the methods of investigation. FA, SP, SU. ONL.

PSY 1320 Psychology of Personal Adjustment (3) A general overview of major theories, concepts, and principles in psychology that can be applied to issues of personal and social adjustment. FA, SP, SU. ONL.

PSY 2100 Research Methods (3) Introduces the basic skills of literature search, experimental design, research methodology, and research reporting. Prerequisites: PSY 1100 and PSY 1000 with a C grade or better or concurrently.

PSY 2110 Research Design and Analysis I (4: 4 lecture, 0 lab) Rationale

and methods for designing, conducting, and analyzing research. PSY 2120 must be taken the following semester. Includes scheduled lab. Prerequisites: PSY 1100; PSY 1000 with a C grade or better or concurrently. FA.

PSY 2120 Research Design and Analysis II (4: 4 lecture, 0 lab) Rationale and methods for designing, conducting, and analyzing research. Continuation of PSY 2110. Includes scheduled lab. Prerequisite: PSY 2110. SP.

PSY 2130 Learning (3) A basic course for students planning to major in psychology. Emphasis on fundamental concepts and theoretical approaches to learning. Prerequisite: PSY 1100. FA, SP, SU. ONL.

PSY 2220 Child Psychology (3) Interaction of biological and environmental factors in the growth of the child from conception to maturity. Prerequisite: PSY 1100 or EDFL 2240. FA, SP. OLO.

PSY 3110 Motivation (3) Consideration of the causal factors of human and animal behavior that impel organisms to persist in goal-seeking behavior. Attention is given to the physiological and psychological motives, and the various theoretical positions. Prerequisite: PSY 2130. FA. OLO.

PSY 3120 Brain and Behavior (3) Introduces the student to the fundamental structures, systems, theories, methods, and practical principles involving the relationship between the nervous system and human behavior. At completion of the course, the student should understand the basic structure and function of the major components of the nervous system, sensory system structures and functions; and those specific nervous system components associated with a variety of behaviors and processes. Prerequisite: PSY 1100 and junior standing.

PSY 3130 Physiological Psychology (4: 4 lecture, 0 lab) A survey of the relationship between physiological mechanisms and behavior. Course includes scheduled laboratory. Prerequisite: PSY 1100, PSY 2120 and junior standing. An additional fee is associated with this course. FA, SP.

PSY 3220 Life-Span Development (3) Theories of development, universal features of human development and its individual variations throughout the life-span of the individual. Prerequisite: PSY 1100 or EDFL 2240. FA, SP, SU. ONL.

PSY 3340 Social Psychology (3) Analysis of individual and group behavior in sociocultural settings. Written and hands-on observation assignments facilitate connections between theories of social behavior. Professional development activities. Prerequisite: PSY 1100 and junior standing. FA, SP, SU. ONL.

PSY 4000 Special Projects in Psychology* (1-3) Individual or group study of problems in special areas of interest. *May be repeated for a maximum of 5 semester hours.* Prerequisites: PSY 1100 and junior standing.

*Not available for graduate credit. FA, SP, SU.

PSY 4010 Introduction to Applied Behavior Analysis* (3) An introduction to use of behavior analysis and therapy procedures across the lifespan. Prerequisite: PSY 2130 with a grade of B or better. *Not available for graduate credit. FA.

PSY 4050 Positive Psychology* (3) The rigorous study of what is right and positive about people and institutions. The course presents an introduction to the core assumptions and research findings associated with human strengths and positive emotions. The course also explores interventions and applications informed by this perspective. Prerequisite: PSY 1100. *Not available for graduate credit. SP. ONL.

PSY 4110 Systems of Psychology* (3) Capstone course for the major where multiple assessments are completed including an exit exam. Includes historical analysis of the field and connections with students' professional development. Prerequisites: PSY 2120 or (PSY 2110 and PSY 4520); PSY 2130; PSY 3120 or PSY 3130; PSY 3220; PSY 3340; PSY 4440; PSY 4310 or concurrently. *Not available for graduate credit. FA, SP.

PSY 4130 Sensation and Perception (3) Relationship between sensory occurrences and the experiences of the person. Prerequisite: PSY 1100 and junior standing. FA, SU. ONL.

PSY 4140 Psychology of Human Sexuality (3) An overview of theories, research and contemporary issues in the scientific study of human sexual behavior and experience. Topics may include: research methods, physiology, arousal and response, gender identity, gender differences, orientation, sexual variations, and attraction and love. SU. ONL.

PSY 4150 Cognitive Psychology (3) An overview of current theories of processes involved in human thinking with emphasis on models of memory, information processing, language and mental representations. Prerequisites: PSY 1100 and junior standing. SU. ONL.

PSY 4180 Seminar in Psychology (1-3) Selected issues not covered in theory-practicum courses. *May be repeated for a maximum of 6 semester hours.* Prerequisites: **PSY 1100** and junior standing. FA, SP, SU. ONL.

PSY 4200 Applied Behavior Analysis With Children and Youth (3) Use of behavior analysis and therapy with normally developing and intellectually and developmentally disabled children and youth. A grade of B or better required to obtain the Certificate in ABA. Prerequisite: **PSY 2130**, **PSY 4010**. FA, SP, SU. ONL.

PSY 4230 Psychology of Adolescence (3) Developmental factors and problems common to the period from puberty to adulthood with emphasis upon conditions leading to optimal development. Prerequisites: **PSY 1100** or **EDFL 2240**; and junior standing. FA, SP, SU. ONL.

PSY 4240 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. Prerequisites: **PSY 1100** and junior standing. FA. OLO.

PSY 4310 Theories of Personality (3) Major theories of personality, past and present. Prerequisite: **PSY 1100** and senior standing. FA, SP, SU. ONL.

PSY 4320 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. Prerequisites: **PSY 1100** and junior standing. SP. ONL.

PSY 4330 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. FA, SP, SU. OLO.

PSY 4440 Abnormal Psychology (3) A descriptive course dealing with the etiology, diagnosis, and treatment of mental disorders of functional and organic origin. Prerequisite: **PSY 1100** and junior standing. FA, SP, SU.

PSY 4500 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. Prerequisites: **PSY 2110** and junior standing. SP.

PSY 4520 Statistics for the Behavioral Sciences (3) Basic statistical methods. The techniques used to analyze frequency distributions, correlations, and tests of significance. FA, SP, SU. ONL.

PSY 4540 Introduction to Counseling Psychology (3) Introduces theories and practice concepts of counseling psychology while exploring professional development issues relative to students pursuing this field. Prerequisite: **PSY 1100**. SU.

PSY 4600 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. Prerequisites: **PSY 1100** and junior standing. FA, SP.

PSY 4720 Rehabilitation of the Mentally Retarded and Emotionally Disturbed (3) Basic principles and practical approaches to the rehabilitation of mentally retarded or handicapped and emotionally disturbed clients. Prerequisites: **PSY 1100** and 6 semesters hours of psychology.

PSY 4730 Cognitive-Behavioral Intervention (3) Description of contemporary cognitive and behavioral treatment procedures for children and adults. Prerequisite: **PSY 2130**, **PSY 4010**. FA, SP.

PSY 4740 Assessment and Intervention with Law Offenders (3) History and philosophy of penology, theories of criminal personality, and rehabilitation procedures; course will include theory and practical work experience. Prerequisites: **PSY 1100** or **CJ 1000** or **SOC 3890**; and junior standing.

PSY 4750 Field Experience in Applied Behavior Analysis* (1-3) Application of behavioral assessment methods, including functional analysis of behavior, and implementation of behavior analytic interventions in a field setting. Must be taken for pass/fail credit only. Prerequisites: **PSY 2130**, **PSY 4010**, **PSY 4200** and **PSY 4730**. **PSY 4750** may be taken concurrently with **PSY 4730** or **PSY 4200**, with instructor's permission. A grade of P (Pass) in **PSY 4750** must be obtained to receive the Certificate in Applied Behavior Analysis. *Not available for graduate credit.

REC - Recreation

REC 1100 Introduction to Recreation (3) Designed to introduce the student of recreation and leisure services to the philosophy, history, and significant social forces inherent in the growth and development of the leisure services field. FA, SP.

REC 2100 Implications of Disabling Conditions for Therapeutic Recreation (3) Skills for awareness of and service to individuals with disabilities.

REC 2200 Developing Recreation and Tourism Programs (3) Provides an overview and practical experience with the program planning process for recreation and tourism services. Prerequisite: **REC 1100** or **TOUR 1900**. SP.

REC 3210 Leadership and Group Dynamics in Recreation and Tourism Services (3) The basics of group dynamics and leadership as applied to techniques in recreation tourism environments. Prerequisite: **REC 1100** or **TOUR 1900**. FA.

REC 4000 Special Projects in Recreation* (1-5) Individual or group study of problems in special areas of interest. *May be repeated for a maximum of 5 semester hours.* *Not available for graduate credit.

REC 4710 Managing Recreation and Tourism Enterprises* (3) Basic functions, management techniques, and operations procedures currently practiced in providing recreation and tourism related services. Prerequisite: **REC 3210**. *Not available for graduate credit. FA(E).

REC 4720 Financing Recreation and Tourism Enterprises* (3) Covers the basic methods and problems of financing public and private recreation and tourism services. *Not available for graduate credit. FA(O).

REC 4980 Internship* (6) Experience in recreation or tourism services while working in an approved agency under qualified and experienced supervision. Prerequisites: approval of the internship coordinator. *Not available for graduate credit. FA, SP, SU.

REL - Religious Studies

REL 1130 The Bible as Literature (3) A literary and historical critical analysis of the Old Testament/Hebrew Bible, the Apocrypha, and the New Testament.

REL 1140 Ancient Israel and Judaism (3) Critical survey of selected books in the Hebrew Bible. Special attention to theories of the development of the texts.

REL 1510 Exploring Religions (3) Definitions, experiences, expressions, beliefs, socio-cultural contexts, and concept of self within religious traditions and practices.

REL 2110 Global Images of Jesus (3) An investigation of the gospels of the New Testament, apocryphal writings, and interpretations of "Jesus" around the world.

REL 2210 Religions in America (3) Historical development of American religious pluralism.

REL 2220 New Religions (3) An international survey of "cults" and new religions during the past 200 years.

REL 2310 World Views and Values (3) Studies in contemporary religious-ethical problems. Topics include biomedical, technological, ecological, gender, corporate responsibility, war and peace, terrorism, racism, and death and dying.

REL 2410 Religions of Africa (3) Explores the diversity and religious traditions in Africa, the Caribbean and among African-Americans in the U.S., emphasizing beliefs, rituals and ethical constraints.

REL 2510 Gender and Religions (3) Studies in how major world religions view the social responsibilities, activities, and relationships of males and females.

REL 3210 Comparative World Religions (3) Similar and contrasting aspects of the world's major religions.

REL 3220 Christianity (3) History of and current issues within Christianity.

REL 3230 Islam Yesterday and Today (3) Exploration of the historic origins of Islamic beliefs and rituals, Muhammad, Khadijah, the Quran, the Hadith, and their influence upon world cultures.

REL 3240 Native American Religions (3) A selected survey of Native American religious traditions in the United States.

REL 3250 Shiva and Indian Religions (3) Investigation of Hindu history, beliefs, practices, art and music, as well as its influence on India and western intellectual life today.

REL 3260 Zen and Other Buddhist Sects (3) History and survey of Buddhism.

REL 3900 Special Projects in Religion (1-3) Individual or group study of problems in special areas of interest, such as research projects and travel seminars. *May be repeated for a maximum of 6 semester hours.*

REL 4410 Modern Religious Thought (3) Selected contemporary international works of influential writers. Topics may include peace and justice, feminist criticism, minority issues, globalization, nationalistic religions, and sports as a religion. Prerequisite: one course in religious studies.

REL 4520 Legal Issues and Religions (3) A survey of historic and recent legal issues dealing with the relationship between religion (church) and the state. Prerequisite: One course in religious studies or approval by the Director.

REL 4900 Special Topics: Religion and Work (3) Study of special topics in religions and work. *May be repeated.*

SAFE - Safety Sciences

SAFE 1000 Exploring the Safety Sciences (1) An overview of safety as an academic endeavor including consideration of the sub disciplines of safety, requirements of students, and professional opportunities.

SAFE 1700 Introduction to Security (3) A survey of the role of security in society with emphasis on industrial and government security.

SAFE 1800 Introduction to Fire Science (3) An overview of the principles of fire protection and fire prevention as they apply to the industrial setting. Emphasis on the chemistry of fire, classification of fires, factors contributing to fires, identification of hazardous materials, techniques of fire prevention, and considerations in fire protection.

SAFE 2010 Practical Safety and Security (3) A critical examination of the role of safety in today's world. Enhances the student's critical thinking processes so the learner can analyze variables influencing risks associated with life's activities.

SAFE 2700 Physical Security Systems (3) Physical security hardware as applied in business, industry, and government.

SAFE 2800 Fire Prevention and Protection (3) Provide a background in fire related codes, laws, and ordinances. Emphasis on the implementation of prevention, protection, investigation, and inspection programs. Prerequisite: SAFE 1800.

SAFE 2900 Applied Sciences for Professional Studies (3) This course utilizes lectures and interactive case studies to develop the learner's understanding and mastery of physical science and math and their practical application as problem-solving tools to address unique challenges associated with a variety of occupational fields such as construction, engineering, safety and health, criminal justice, and aviation.

SAFE 3000 Principles of Accident Causation and Prevention (3) Traces the development of the safety movement, provides a background useful in handling problems and procedures of typical school, industrial, transportation, civil defense, and emergency safety programs.

SAFE 3015 Emergency Preparedness (3) Legal responsibilities of environmental and human protection. An examination of staff functions and responsibilities during major emergencies, resulting from human errors and natural disasters, as they influence human and environmental loss potentials.

SAFE 3070 Safety Leadership (3) Problems of behavior, causes of accidents, and the application of principles of psychology, philosophy, and ethics in the development and management of safe behavior on and off the job.

SAFE 3120 Industrial Hygiene (3) The recognition, evaluation and control of workplace health hazards.

SAFE 3430 Industrial Hazard Control (3) The techniques for the control of mechanical, electrical and chemical hazards. The Occupational Safety and Health Standards which interface with these areas will also be included. Prerequisite: SAFE 3000 or SAFE 3120.

SAFE 3700 Security Organization and Management (3) Organization and management of security programs in business, industry, and government.

SAFE 4000 Ergonomics in Safety and Health (3) An introduction into the role and application of ergonomics in a comprehensive safety program.

SAFE 4010 Accident Investigation (3) Fundamentals and techniques of investigating accidents. Prerequisite: SAFE 3000 and SAFE 3120 or graduate standing.

SAFE 4015 School Safety, Security and Crisis Management (3) Provides school personnel with current information addressing school safety and

security needs, including an analysis of threat identification, violence prevention, safety plans, and crisis response.

SAFE 4020 Legal Aspects of Safety and Health (3) An investigation of the legal problems confronting the safety and health specialist. Prerequisite: SAFE 3000 or graduate standing.

SAFE 4035 Safety Program Management (3) Examination of theory and practices of safety and health management. Includes planning programs, contemporary safety and health management practices, and programmatic impact of organizational theory. Prerequisite: senior standing or consent of instructor.

SAFE 4055 Safety Capstone Experience* (3) Integration of safety information using conceptual and technical data to resolve safety and health issues. The case study approach will be emphasized. Prerequisites: admission to program, 27 semester hours of SAFE courses and senior standing. *Not available for graduate credit.

SAFE 4140 Safety and Health Laboratory (3) A lab course using instrumentation commonly used in the evaluation of the workroom environment and equipment for safety. Prerequisites: SAFE 3120 and SAFE 3430, or graduate standing. An additional fee is associated with this course.

SAFE 4150 Noise Measurements (2) Physics of sound, measurement and control of noise. Laboratory required. Prerequisite: one year of college physics or equivalent.

SAFE 4160 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. Prerequisite: SAFE 3120 or graduate standing.

SAFE 4215 Transportation and Storage of Hazardous Materials (3) A study of the state-of-the-art of safe methods for the transportation and storage of hazardous materials. Prerequisite: SAFE 3000 or CDM 3000 or graduate standing.

SAFE 4250 Traffic Engineering (3) Planning, design and operation of effective and efficient traffic movement systems. Various types of traffic studies, traffic control techniques and devices, traffic flow patterns, street lighting and street and parking are presented and discussed. Students participate in field studies.

SAFE 4260 Management of Fleet Safety Programs (3) The role and responsibilities transportation officials have in the administration and operation of a motor fleet safety program; the study of U.S. Department of Transportation Regulations.

SAFE 4300 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. FA.

SAFE 4425 Safety and Health Legislation and Standards (3) A comprehensive study of legislation and standards designed to protect the worker. Prerequisite: SAFE 3000 or graduate standing.

SAFE 4430 Workers Compensation Legislation (3) An overview of the principles and statutes that govern workers compensation as they apply to the industrial setting. Prerequisite: SAFE 3000 or graduate standing.

SAFE 4435 Environmental Compliance (3) Comprehensive study of federal and state environmental legislation and standards to protect the health and safety of citizens.

SAFE 4440 Environmental Air Quality and Pollution Prevention (3) Comprehensive study of environmental air quality and pollution prevention techniques.

SAFE 4445 Water Quality and Waste Water Management (3) Comprehensive study of water quality, waste water management and pollution prevention techniques.

SAFE 4510 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. Prerequisite: SAFE 3000 or graduate standing.

SAFE 4520 Safety and Risk Analysis (3) Identification of safety risks and analytical treatment of those risks in various work settings. Prerequisites: SAFE 3000 or graduate standing.

SAFE 4560 Systems Safety (3) Techniques and concepts of hazard control within the constraints of operational effectiveness, time, and cost attained through the specific application of management and scientific principles throughout all phases of a system life cycle. Prerequisite: SAFE 3000 or graduate standing.

SAFE 4700 Special Security Problems (3) An overview of security as applied to contemporary situations in business, industry, and government.

SAFE 4710 Security Technology (3) A survey of security detection, including electromechanical and electronic systems. Future applications of technology are discussed. Prerequisite: college level math course.

SAFE 4720 Personnel and Information Security (3) Methods used in screening personnel and safeguarding information.

SAFE 4800 Water and Sprinkler Systems Analysis (3) Water supply, how to determine quantity, and basic fire service water requirements. An in-depth study of the design, installation, operations and maintenance of sprinkler systems that use water. Prerequisite: CHEM 1111. FA.

SAFE 4810 Fire Extinguishing and Alarm Systems (3) Basic types of extinguishing systems, other than sprinkler systems, and their use. Fire alarm systems, their use, installation and components.

SAFE 4830 Fire Investigation (3) Fire investigation techniques with emphasis on fire causation, equipment, evidence, and reporting. Prerequisite: SAFE 1800 or graduate standing.

SAFE 4850 Industrial Fire Protection (3) The recognition, control or elimination of fire hazards in industrial settings. Prerequisites: CHEM 1104 and MATH 1111, or consent of instructor or graduate standing.

SAFE 4900 Directed Studies (1-6) Individual or group study of problems in special areas of interest. *May be repeated for a maximum of 6 semester hours.*

SAFE 4910 Special Projects in Safety Sciences (1-3) Individual or group study of problems in special areas of interest. *May be repeated for a maximum of 6 semester hours.*

SAFE 4940 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. Prerequisite: high school algebra or equivalent.

SAFE 4950 Food Safety (3) Comprehensive study of food safety, ion of food hazards, risk analysis and systems for food safety and risk prevention.

SAFE 4990 Internship in Safety Sciences* (1-6) Internships are based upon student preparation and interest. Actual work experiences in education, institutions, government, industry, or business are provided. *May be repeated for a maximum of 6 semester hours.* Prerequisite: departmental approval and must have completed one-half of major/minor courses in area of study. *Not available for graduate credit.

SM - Sport Management

SM 3100 Introduction to Sport Management (3) An introduction to the field of sport management, introducing the concepts, scope, organization and common practices in the sport management industry.

SM 3300 Leisure and Sport (3) Examination of the role of leisure services in the 21st century including an in-depth analysis of relevant concepts, industry dynamics, and trends. Prerequisite: SM 3100.

SM 4200 Applied Sport Marketing* (3) The study of theoretically based provisions of opportunities in recreational sport. Emphasis is on understanding all aspects of recreational sport programming. Prerequisites: SM 3100 and MKT 3405. *Not available for graduate credit.

SM 4210 Sport and Media* (3) Introduce students to the importance of sport to the mass media, the work of sport journalists and sport broadcasting. Students will gain factual knowledge about the sport industry and specifically the symbiotic relationship between sport and the media. Prerequisites: SM 3100 and SM 4200. *Not available for graduate credit.

SM 4220 Sport Sponsorship and Retention* (3) Provide students with theoretical and empirical knowledge of sport sponsorship. Students will master topics including marketing, brand equity, marketing communication theories, sport sponsorship evaluations, and sport sponsorship proposals. Prerequisites: SM 3100 and SM 4200. *Not available for graduate credit.

SM 4300 Recreational Sport Management* (3) The study of theoretically based provisions of opportunities in recreational sport. Emphasis is on understanding all aspects of recreational sport programming. *Not available for graduate credit.

SM 4400 Sport Communication* (3) Provide an introduction to the area of sport communication. Topics include: historical and theoretical features of the field, sport information, public relations, media production, personal and organizational processes, sport media, services and support systems,

and sociological and legal aspects. Prerequisite: SM 3100. *Not available for graduate credit.

SM 4500 Sport Leadership* (3) A study of leadership theories, concepts, and applications as they apply to athletic and sport organizations. This course will explore traits and behaviors of leaders, power and influence dynamics between leaders and led, leading groups, and effective sport organization processes. Prerequisite: SM 3100. *Not available for graduate credit.

SM 4700 Sport Facility Management* (3) An introduction to sport facility management, facility development, facility systems and operation, and facility administration. Prerequisite: SM 3100. *Not available for graduate credit.

SM 4720 Managing Sporting Events* (3) An introduction to sport event management through a practical application of foundational concepts. Prerequisite: SM 3100. *Not available for graduate credit.

SM 4900 Senior Seminar in Sport Management* (3) Study and discussion of professional issues, trends, and basic risk management principles in a seminar format. Prerequisite: senior standing and approval of the department. *Not available for graduate credit.

SM 4980 Internship* (6) A 400-hour field experience applying sport management principles and theories in an approved sport management setting. Prerequisite: SM 4900 and consent of instructor. *Not available for graduate credit.

SOC - Sociology

SOC 1800 General Sociology (3) Explores the relationships of individuals, groups, and society in the context of changing social institutions. Addresses basic concepts and subfields in sociology. FA, SP, SU. ONL.

SOC 1830 Social Problems (3) The sociology of social problems; background and analysis of selected social problems such as race, crime, population, civil rights, poverty; social changes in light of social controls and democratic values.

SOC 2805 Introduction to Social Research (3) An overview of the concepts and practice of research including measurement, sampling, design, basic descriptive statistics and ethics. Attention to both qualitative and quantitative approaches. FA, SP.

SOC 2825 Family and the Life Course (3) Examination of theory and research on families with a focus on the life course.

SOC 2845 Social Inequality (3) A theoretical and methodological examination of the relationships between social class, inequality, and mobility. FA.

SOC 2850 Institutions and Social Action (3) Introduces theoretical approaches to modern social institutions and offers a critical examination of strategies of social action intended to intervene within institutional contexts. SP.

SOC 2855 Aging in American Society (3) Exposes students to the basics of aging, theories of aging, and applied issues. Political and economic forces that impact the aging process and older adults in the United States are addressed.

SOC 3810 Culture and Society (3) Examines culture including art, popular culture, folk/ethnic culture, consumer culture, and post-modern culture. Emphasis on meaning and power.

SOC 3815 Urban Sociology (3) Urbanization, rise and growth of cities; attention to demography, ecology and changes in urban society; social problems such as land utilization, housing, slums, politics, crime, and living standards.

SOC 3820 Popular Culture (3) Exploration of the major theories of popular culture including production, consumption, taste, resistance, and audience.


SOC 3825 Race and Ethnic Relations (3) The study of principles, processes and consequences of interracial and ethnic group relations. Emphasis on the social construction of ethnicity, ethnic stratification, and ethnic movements. FA, SP.

SOC 3830 Collective Behavior (3) An application of social-psychological principles to various forms of collective phenomena, including cults, civil disturbances, and social movements.

SOC 3840 Sociology of Sport (3) An investigation and analysis of the relationships between sport and society. Focus will be upon the development and changing nature of sport as an institution in modern society.

SOC 3845 Social Deviance (3) Exploration of the major theories of social norms and social deviance across a variety of social contexts including legal and non-legal, underprivileged and privileged.

SOC 3870 Personality and Society (3) Emphasizes theories of micro-sociological principles. Focuses on interpersonal relationships and how issues such as socialization and identity impact human behavior and views of the self.

 **SOC 3885 Globalization and the Future (3)** This course explores the impact of the globalization phenomenon upon the future development of the world's economic, political and sociocultural aspects.

SOC 3890 Criminology (3) The nature and characteristics of crime and criminals; the historical perspectives of criminology; theoretical analysis of criminal behavior. ONL. FA, SP, SU.

SOC 3895 Outsiders and Outcasts (3) An exploration of the ideas of marginality and the cultural processes of inclusion/exclusion including exiles, immigrants, refugees, ethnic minorities, and the homeless.

 **SOC 4805 Environment and Society (3)** Examination of the social debates around the environment including wilderness, natural resource use, agriculture, recreation, environmentalism, and green production and consumption.

SOC 4815 Special Projects in Sociology (1-6) Study, interpretation, and discussion of special topics and problems in sociology. *May be repeated for a maximum of 6 semester hours.*

SOC 4850 Work and the Modern Society (3) Critical inquiry into the workings of modern society and its cultures and subcultures, ideologies, institutions, elites, classes, and the processes of power relations.

SOC 4855 Family Diversity (3) Focus on the institutional implications of the family. Diversity in ethnicity, sexuality, and class are emphasized. Intersection of work and family is explored. Prerequisite: 6 semester hours of sociology, graduate standing, or consent of instructor.

SOC 4860 Sociological Thought* (3) Assessment of current sociological thought as it is reflected by outstanding scholars in the field. Prerequisite: SOC 2845 or SOC 2850 and 3 additional semester hours of sociology. *Not available for graduate credit.

SOC 4875 Medical Sociology (3) Social factors and institutional settings for physical and mental health care; public needs and medical services; research in medical sociology.

SOC 4885 Religion and Society (3) The structure and function of religion in society; social sources of religions; religion and the individual. Prerequisite: 6 semester hours of sociology, graduate standing, or consent of instructor.

SOC 4890 Social Survey Research* (3) Major concepts in social survey research design, measurement, sampling, and data collection techniques. Quantitative analysis of survey data and micro-computer applications. Prerequisite: SOC 2805. *Not available for graduate credit.


SOC 4894 Sociology of Aging (3) Seminar examining the process of aging in relation to demographic, economic, psychological, and sociological implications with an emphasis on sociological principles and perspectives. Prerequisite: junior standing, senior standing, or graduate status. FA.

SOC 4895 Senior Seminar in Public Sociology* (3) For senior Sociology majors to explore the use and application of Sociology in public life and as a career. Cumulative senior project required. Prerequisite: Sociology major and senior standing or consent of department chair. *Not available for graduate credit.

SOSC - Social Science

SOSC 3010 Writing in the Social Sciences (3) Practicum in writing in the social sciences. Prerequisite: completion of General Education Writing I and II.

SOSC 4050 The Social Studies* (3) The "structures" of the disciplines and practice in redesigning university course work for high school lessons. *Not available for graduate credit.

 **SOSC 4074 Methods of Teaching Social Studies* (3)** Prerequisites: admission to Teacher Education Program and The Social Studies course (4050-undergraduates only). Methods of Teaching Social Studies should be taken the semester prior to the Professional Semester (student teaching). Double majors must take a methods course for each major. *Not available for graduate credit.

SOT - School of Technology


SOT 3022 Internship in Technology (1-6) Provides practical application and experience in cooperating industry and business. Students submit written reports. Evaluation by on-job supervisor and internship coordinator. *May be repeated for a maximum of 6 semester hours.* Prerequisites: 20 semester hours of program offerings, minimum undergraduate GPA of 2.0 and permission of department chair.

SOT 4000 Special Projects in Technology (1-3) Investigation of contemporary problems and issues in technology by selected individuals or groups. *May be repeated for a maximum of 6 semester hours.*

SOT 4570 Computer Graphics (3) Computer generated presentation graphics utilizing a variety of software programs on numerous hardware configurations. Experiences will include production of laser prints, ink-jet prints, transparencies, color slides, and plots.


SOWK - Social Work

 **SOWK 2600 Introduction to Social Welfare and Social Work (3)** Overview of individual and societal values and perspectives which impact social policy, programs and services that promote well being for individuals, families, groups and communities.

SOWK 3601 Social Work Practice and the Agency Experience (3) Presents a generalist framework for practice with individuals, families, groups, organizations and communities. Students observe application of this practice framework in social work practice setting. Prerequisites:  SOWK 2600.

SOWK 3605 Methods of Inquiry and Evaluation for Social Workers (3) Advanced research methods course for undergraduate social work majors, including quantitative and qualitative methods and data analysis and case/program-level evaluation. Open to social work majors only. Prerequisite: SOC 2805.

SOWK 3610 Social Work Practice: Basic Skills (3) Development of interpersonal skills and interviewing techniques for micro, mezzo, and macro levels of generalist practice. Open to social work majors only. Prerequisite: SOWK 3601.

SOWK 3612 Human Behavior Across the Lifespan (3) Examines human development and behavior across the life span, studying essential biophysical, psychological and social dimensions, emphasizing the fundamental reciprocity between persons and society/culture. Prerequisites: SOWK 3600 or SOWK 3601 or concurrently,  BIOL 2010 or concurrently.


SOWK 4610 Special Topics in Social Work (3) Selected Topics of contemporary interest in social work or specialized fields of practice; variable content. *May be repeated for a maximum of 9 semester hours.* Prerequisite: SOWK 3601 or concurrently or graduate standing or consent of instructor.

SOWK 4612 Human Behavior Social Systems* (3) Utilizes a social systems approach to examine the processes of human behavior within groups, organizations, communities and societies/cultures. Prerequisite: SOWK 3601 or concurrently. *Not available for graduate credit.

SOWK 4620 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. Prerequisite: SOWK 3601 or concurrently or graduate standing or consent of instructor. FA.

SOWK 4630 Social Work Practice: Intervention with Families and Groups* (3) Integrates knowledge, theory, values and interviewing skills for assessment and intervention planning with individuals, families and groups. Open to social work majors only. Prerequisite: SOWK 3610. *Not available for graduate credit.

SOWK 4640 Social Work Practice: Intervention with Communities and Organizations* (3) In-depth application of the generalist model of social work practice with an emphasis on macro-level skills. Open to social work majors only. Prerequisites: SOWK 3601 and SOWK 4612. *Not available for graduate credit.

SOWK 4650 Social Policy and Economic Justice* (3) Develops an operational and critical understanding of the relationships among social welfare policy, social and economic justice issues, and social work practice. Open to social work majors only. Prerequisites:  SOWK 2600 and consent of instructor. *Not available for graduate credit.

SOWK 4660 Field Practicum* (9) Educationally directed 500-hour field experience in a social service agency under qualified agency supervision. Open to social work majors only. Corequisite: SOWK 4661. Prerequisites: all other required major courses must be completed and consent of Coordinator of Field Education. *Not available for graduate credit.

SOWK 4661 Field Practicum Seminar* (3) This capstone course integrates knowledge for beginning level professional development including ethical decision making, with group processing of varied practicum experiences. Open to social work majors only. Corequisite: SOWK 4660. Prerequisites: all other required major courses must be completed and consent of the Coordinator of Field Education. *Not available for graduate credit.

SPAN - Spanish

SPAN 1601 Elementary Spanish I (3) Fundamentals of Spanish pronunciation, the building of basic vocabulary and patterns, oral work, studies in structure, and reading selections. Not open to native speakers or students who have had three years of high school Spanish without the permission of the department chair.

SPAN 1602 Elementary Spanish II (3) A continuation of Spanish I, with increased attention to grammar. Not open to native speakers or students who have had four years of high school Spanish without the permission of the department chair. Prerequisite: SPAN 1601.

SPAN 2601 Intermediate Spanish I (3) Development of the ability to use the language by oral-aural laboratory drills and readings. Prerequisite: SPAN 1602.

SPAN 2602 Intermediate Spanish II (3) Continuing development of the ability to use the language on the intermediate level, with more advanced grammar, laboratory work and readings. Prerequisite: SPAN 2601.

SPAN 2603 Spanish Conversation I (3) Conversational Spanish using culture-based materials emphasizing the four skills: speaking, listening, reading, and writing. Prerequisite: SPAN 2602.

SPAN 2690 Special Topics in Spanish (1-3) Individual or group work by selected students in carefully chosen fields for intermediate level study. *May be repeated for a maximum of 15 semester hours.* Prerequisites: 6 semester hours of Spanish and consent of the department chair.

SPAN 3603 Spanish Conversation II (3) Oral practice in everyday Spanish, discussion, idiomatic usage, listening comprehension, speaking. Prerequisite: SPAN 2603.

SPAN 3623 Spanish Composition (3) Review of grammar, oral-aural training, and special study of the subjunctive mood. Prerequisite: SPAN 2602.

SPAN 3661 Spanish Civilization and Literature (3) The social, cultural, literary, and political history of Spain. Prerequisite: SPAN 2602.

SPAN 3662 Spanish American Civilization and Literature (3) The social, cultural, literary, and political history of Spanish America. Prerequisite: SPAN 2602.

SPAN 4603 Advanced Readings and Oral Expression* (3) Emphasis on advanced readings and oral-aural practice in Spanish. Prerequisite: SPAN 3603. *Not available for graduate credit.

SPAN 4623 Advanced Spanish Composition* (3) Oral and written composition; review of more difficult grammatical constructions and idioms. Prerequisite: SPAN 3623. *Not available for graduate credit.

SPAN 4650 Introduction to Spanish for Business* (3) Enhances linguistic and cultural knowledge of Spanish for business and will be conducted primarily in Spanish. Prerequisite: SPAN 3623. *Not available for graduate credit.

SPAN 4665 Culture and Issues in the Contemporary Spanish-Speaking World* (3) An exploration of contemporary political, economic and societal issues affecting Spanish-speaking cultures with emphasis on further developing language skills through discussions and written assignments. Prerequisite: SPAN 3661 or SPAN 3662. *Not available for graduate credit.

SPAN 4671 Cinema of the Spanish-Speaking World* (3) A survey of Latin American, Spanish and Latino films with emphasis on the cultural contexts in which the films are produced and viewed. Prerequisite: SPAN 3623. *Not available for graduate credit.

SPAN 4680 Contemporary Literature of the Spanish-Speaking World* (3) Literary texts of the 20th and 21st centuries from Spain and Spanish America with emphasis on developing language skills through discussions

and written assignments. Prerequisite: SPAN 3623. *Not available for graduate credit.

SPAN 4690 Special Topics in Spanish* (1-3) Individual or group work by selected students in carefully chosen fields for advanced study. *May be repeated for a maximum of 15 semester hours.* Prerequisite: 18 semester hours of Spanish and consent of department chair. *Not available for graduate credit.

STCH - Science Teaching

STCH 4050 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. Prerequisite: 16 hours of science content courses including at least one lab course. *Not available for graduate credit.

STCH 4080 Teaching Secondary Science* (3) Provides additional teaching strategies, pedagogy, and resources to make teaching more effective. Includes 25 hours of field experience. Prerequisite: Admission to Teacher Education program. Corequisite: FLDX 4595. *Not available for graduate credit.

TECH - Technology

TECH 1040 Technical Mathematics I (3) Application of the principles of algebra, geometry, and the fundamental concepts of trigonometry to technical work. Designed for associate degree technical programs. Prerequisite: AE 1030 or one unit of high school algebra.

TECH 1042 Technical Mathematics II (3) Application of the principles of numerical and analytical trigonometry, complex numbers, vector algebra and oblique triangle, logarithms, basic analytic geometry and probability theory. Prerequisite: MATH 1111 or concurrently; or TECH 1040

TECH 2040 Calculus for Technology (3) Application of the fundamental concepts of differential and integral calculus to technology. Prerequisites: MATH 1111; and TECH 1042 or MATH 1112.

TECH 3050 Technical Career Subjects (1-3) In-depth competency, skill development, and advanced concepts taught in formal course offerings through explorations of innovative techniques and procedures used in business and industry. *May be repeated for a maximum of 12 semester hours.* Prerequisite: consent of a review committee of three faculty members in the department.

TECH 4020 Industrial Energy Management (3) Energy efficient techniques in a variety of industrial settings.

TECH 4050 Equipment Installation and Maintenance* (2) Technical problems in the installation of power equipment; care and maintenance of tools and machines; servicing school equipment; safety. *Not available for graduate credit.

THEA - Theatre

THEA 1100 Oral Interpretation (3) Skills used to convey the intellectual, emotional, and aesthetic values of literature to an audience.

THEA 1400 Script Analysis (3) Structural and performance dimensions of the playscript. It will focus on the role of the various theatrical artists in developing an effective methodology and application for translating the playwright's script into a public performance.

THEA 1500 Acting (3) An extensive study in the theories and techniques of acting.

THEA 1510 Stage Movement (3) An extensive study of the body's use in theatrical performance; this class will work with expanding the imagination of bodily expression.

THEA 1520 Stage Voice (3) Course is designed to improve and enhance the skills necessary for excellent stage vocal production. Exercises will focus on breath, resonance, articulation and speech dynamics.

THEA 1600 Stagecraft (3) Lectures and laboratory experiences in the construction, painting, rigging and shifting of stage scenery. Scene shop work arranged as a portion of the course.

THEA 1610 Stage Make-up (3) Materials and methods of application of make-up artistry for cosmetic and character effects on stage.

THEA 1900 Theatre Practicum (1) Supervised work on selected problems in play direction, acting, scene design, scene construction, stage lighting, and business management. *May be repeated for a maximum of 3 semester hours.* Prerequisite: consent.

THEA 2400 Discovering Theatre (3) An introductory examination of theatre and theatrical production, the work of the individual theatre artists involved in the process, and a survey of the drama and developments of major theatrical periods in theatre history.

THEA 2610 Design Fundamentals (3) Survey of the concepts, applications, and techniques of theatrical design through study of the design areas in lighting, costume, scenic, make-up, hair, sound and properties.

THEA 2620 Costume Technology (3) Lectures and laboratory experience in sewing, fabric modification, and the craftwork of costume construction. An additional fee is associated with this course.

THEA 2630 Drafting for the Theatre (3) Provides students with modern drafting tools and standardized drafting techniques commonly used in theatrical drafting and visual communication for both design and technical purposes.

THEA 3220 Children's Theatre (3) The study and practice of producing plays for a children's audience. SP.

THEA 3500 Advanced Scene Study (3) The course is designed to enhance the actor's proficiency with character development within the genre of realism. Prerequisite: THEA 1500.

THEA 3600 Scene Design (3) Theory and practice of design as applied to scenery for modern theatrical production. Prerequisites: theatre majors, THEA 1600; art majors, ART 3910 or ART 3310.

THEA 3610 Costume Design (3) Theory and practice of costume design as applied to theatrical, musical and operatic productions of live theatre.

THEA 3620 Lighting Design (3) Theory and practice of lighting design as it applies to the modern theatrical performance.

THEA 3630 Studio Theatre I (1) Technical direction of a play in the Studio Theatre series at approximately the junior class level. Prerequisites: THEA 1500, THEA 1600, THEA 3700 and departmental consent.

THEA 3700 Directing (3) Problems, principles, and employment of various directing styles, and the adaptation of directing techniques to various physical facilities. Prerequisites: THEA 1500 and THEA 1600.

THEA 3900 Special Topics in Theatre (1-3) Individual study and research on topics that are of special interest to the student. *May be repeated for a maximum of 6 semester hours.* Prerequisite: consent.

THEA 4300 Professional Practices (1-6) Extended, supervised experiences in any phase of theatre production. Credit allowed will depend upon the nature and scope of the assignment. *May be repeated for a maximum of 10 semester hours.* Prerequisite: consent.

THEA 4310 Principles of Theatre Management (3) An in-depth examination of the business theories and practices in modern educational, community, and professional theatre. Box office and publicity work are required.

THEA 4400 Literature and History of the Theatre I (3) Works and writers for the stage from the beginning to 1700. The development of theatrical modes and presentation and their influences upon the drama of each period. FA.

THEA 4420 Literature and History of the Theatre II (3) Works and writers for the stage from 1700 to the present. The development of theatrical modes and presentation and their influences upon the drama of each period. SP.

THEA 4430 American Musical Theatre History (3) History, literature and production of the American Musical.

THEA 4500 Advanced Acting (3) An intensified study of characterization centering around the study of difficult roles, and the adaptation of acting techniques to various styles of acting. *May be repeated for a maximum of 6 credit hours.* Prerequisite: THEA 1500.

THEA 4510 Period Acting Styles (3) Examines the craft, methodology, resources and practice of acting in non-realistic (classical and contemporary) dramatic literature. Emphasis on analysis of stylistic determinants in dramatic literature. *May be repeated for a maximum of 6 hours.*

THEA 4600 Advanced Technical Theatre (3) Advanced techniques in scenery construction and painting, plastics, and selection of stage equipment. Laboratory exercises will be required. Prerequisite: THEA 1600.

THEA 4610 Advanced Stage Lighting and Sound (3) Extensive investigation of stage lighting history and practices in the modern theatre and the study and use of live and recorded sound as a theatrical art. Prerequisite: THEA 1600.

THEA 4620 Period Research (3) This course will examine the art,

architecture, fashion, decorative arts, and music of Western Civilization from ancient Greece to modernity, and the intellectual, spiritual, social, and economic ideas that they reflect.

THEA 4710 Advanced Directing (3) Extensive examination of special directing problems with comedy, tragedy, period drama, and the musical show in arena and proscenium theatres. *May be repeated for a maximum of 6 credit hours.* Prerequisite: THEA 3700.

THEA 4730 Studio Theatre II* (1) Direction of a play in the Studio Theatre series at approximately the senior class level. Prerequisite: THEA 3630 and departmental consent. *Not available for graduate credit.

THEA 4800 Playwriting (1-3) Dramatic writing, dramatic theory, style dialogue exercises, characterization, with opportunity for the production of student plays. *May be repeated for a maximum of 3 semester hours.*

THEA 4900 Repertory Theatre (3) Practical experience in theatre through participation in a summer repertory season of plays as an actor, a technician, or management personnel. *May be repeated for a maximum of 6 semester hours.* Prerequisite: enrollment by department approval only.

THEA 4910 Senior Showcase (1) Senior Theatre Majors will present a public showcase performance or portfolio presentation. Course is part of the formative assessment process within Theatre Department.

THEA 4920 Secondary Field Experience II* (1) Experiences in the secondary school classroom that provide the teacher candidate more advanced involvement in the teaching-learning process. Prerequisites: admission to Teacher Education Program; should be taken concurrently with THEA 4984 during the Professional Semester. *Not available for graduate credit.

THEA 4930 Co-Curricular Practicum* (2) This course occurs during the first four weeks of the student teaching semester and is designed to ensure that teacher education candidates have mastered specific techniques for the coaching and administrating of Speech and Debate teams and for engaging in play production at the high school level. The one credit hour field experience course (THEA 4920) is taken concurrently with THEA 4930. THEA 4920 provides student teaching candidates opportunities to observe and interact with high school students in the classroom setting. In both courses, an increased emphasis is placed on teaching performance strategies as well as organizational and classroom and rehearsal management skills specific to the speech communication and theatre classroom in order to prepare students for their student teaching experience and subsequent teaching career. *Not available for graduate credit.

THEA 4984 Methods of Teaching Speech and Theatre* (2) Prerequisites: admission to Teacher Education Program; double majors must take a methods course for each major; methods should be taken concurrently with THEA 4920 during the Professional Semester. *Not available for graduate credit.

T&OE - Technology and Occupational Education

T&OE 1090 Exploratory Problems in T&OE (1-3) Individual or group work on introductory level technical problems in technology and occupational education. Provide exploration of content not available through normal course offerings. *May be repeated for a maximum of 6 hours.* Prerequisites: written contract/proposal with objectives and departmental consent.

T&OE 4120 Secondary Field Experience II* (1) Experiences in the secondary school classroom that provide the teacher candidate more advanced involvement in the teaching-learning process. Prerequisites: Admission to Teacher Education Program; should be taken concurrently with CTE 4160 during the Professional Semester. *Not available for graduate credit.

TOUR - Tourism

TOUR 1900 Introduction to Tourism (3) The course presents a basic understanding of travel and tourism and provides insight into the development and operations of the various components of the travel industry. FA, SP.

TOUR 3300 Tourism Destinations (3) Includes the description of tourism related attributes of various countries. FA.

TOUR 3500 Microcomputer Applications for Tourism and Recreation (3)

Assists the student in becoming literate in the use of microcomputers in the tourism and recreation field. Prerequisite: **W**BTE 1210 or **W**ELIS 1600 or consent of instructor. FA, SP.

TOUR 3710 Group Tour Operations (3) Provides an overview of the group travel industry and the role of group tour operators in providing travel opportunities. Prerequisite: TOUR 1900. SP.

TOUR 4310 International Tourism* (3) A presentation of the phenomena and relationships arising from the interaction of international tourists, business suppliers, host governments, and host communities in the process of attracting and hosting international tourists. Prerequisite: TOUR 1900 or HM 1800. *Not available for graduate credit. SP.

TOUR 4700 Conference and Convention Planning* (3) Provides an insight into the planning techniques and management strategies used in conference and convention operations. Prerequisite: TOUR 1900. *Not available for graduate credit. FA.

TOUR 4720 Tourism Planning and Development* (3) The processes involved in planning quality recreation and tourism destination areas. Prerequisite: HM 1800 or REC 1100 or TOUR 1900. *Not available for graduate credit. SP.

TOUR 4740 Special Events Planning* (3) Presents an overview of the special events field and the current practices in event planning and management. Prerequisite: TOUR 1900. *Not available for graduate credit. FA.

TOUR 4900 Special Projects in Tourism* (1-5) Individual or group study of problems in special areas of interest. *May be repeated for a maximum of 5 semester hours.* Prerequisite: Consent of Instructor. *Not available for graduate credit.

TOUR 4920 Senior Seminar* (2) Develop skills necessary to be prepared for addressing current issues/trends in the tourism industry. Prerequisite: Consent of instructor. *Not available for graduate credit.

TOUR 4980 Internship* (6) Experience in tourism services while working in an approved agency under qualified and experienced supervision. Prerequisites: TOUR 4920 and approval of internship coordinator. *Not available for graduate credit. FA, SP, SU.

WGS - Women, Gender and Sexuality

WGS 1050 Women's Voices (3) Using the arts and humanities, this course explores the viewpoint of women artists and women writers in social debates using multiple genres and from differing cultural locations. Focus is on how particular positions of women in society affect their voices and aesthetics are brought into public debates.

WGS 2000 Race, Class, and Gender (3) Explores how the experience of gender (male/female) is shaped by other social categories, esp. race and class. It utilizes a cross-social science approach drawing from political science, sociology, psychology and other social sciences to think about the institutional basis of marginalizing and empowering social categories.

WGS 2050 Sexuality, Debate and Action (3) Explores major debates over sexuality from an interdisciplinary perspective asking questions about identity, power, and cultural difference. Considers the role of social action in a plural society.

WGS 4810 Special Projects in Women, Gender & Sexuality (1-6) Individual study or one-time courses focused on specialized issues in Women, Gender and Sexuality. Available for undergraduate or graduate credit.

ABA Certificate (Applied Behavior Analysis)	136	and Languages	70	Career and Technology Education (Department of)	91
Academic Advisement	30	Department of History and Anthropology	76	Career and Technology Education Courses - CTE	178
Academic Calendar	iv	School of Visual and Performing Arts:		Career and Technology Teacher Education Program	91
Academic Credits	10	Department of Art and Design	78	Career and Development Services	32
Academic Enrichment	30	Department of Music	81	CD Courses	168
Academic Enrichment Courses - AE	155	Department of Theatre and Dance	85	CDM Courses	169
Academic Load	20	Assessment	31	Center for Religious Studies	61
Academic Policies	20	Assessment, General Education	31	Center for Teaching and Learning	32
Academic Progress, Satisfactory	16	AT Courses	160	Central Community Creed	1
Academic Standards	18	Athletic Training Program	132	Central Degree (DegreeWorks, Degree Audit)	21
Academic Standing	22	Athletic Training Courses - AT	160	Central Missouri Police Academy	117
Accessibility Services	31	ATM Courses	161	Central Regional Professional Development Center	32
Accountancy Programs	107	Attendance	20	Certificate:	
Accounting Courses - ACCT	155	Auditing Courses	26	Applied Behavior Analysis (ABA)	137
Accreditations	2	Automotive Technology Courses - ATM	161	Advanced Vehicle Systems	145
ACCT Courses	155	Automotive Technology Management Program	145	Aeronautics	109
Actuarial Science and Statistics Program	125	Automotive Technology Program	146	Applied Lean Six Sigma Quality	145
Administrative Support Program	92	AVIA Courses	162	Business Continuity	118
Admissions (International Student)	7	Aviation (Department of)	109	Emergency Management	118
Admissions (Office of)	4	Aviation Courses - AVIA	162	Emergency Services Management	118
Admission to:		Aviation Maintenance Management 2+2 Program	110	Environmental Hazards	118
Bachelor of Science in Business Administration	100	Aviation Maintenance Transition Certificate (General)	111	General Aviation Maintenance Transition	111
Communication Disorders	112	Aviation Management Program	110	Strategic Communication for Leadership	65
Nursing Program	130	Aviation Program	112	Technology	154
Professional Education Semester	90	BADM Courses	163	Certificates (Undergraduate)	43, 59
Social Work	114	Biochemistry Program	138	Certification	89
Student Teaching	90	BIOL Courses	163	CFD Courses	169
Teacher Education Program	90	Biology and Agriculture (Department of)	119	Changes in Class Schedules	24
Advanced Vehicle Systems Certificate	145	Biology Courses - BIOL	163	Chapel	32
Advocacy	35	Biology Programs	120	CHEM Courses	170
AE Courses	155	BLAW Courses	166	Chemistry Courses - CHEM	170
AERO Courses	156	Board of Governors	i	Chemistry Programs	139
Aeronautics Certificate	109	Bowling Center (Union)	29	Child and Family Development Courses - CFD	169
Aeronautics Courses - AERO	156	BTE Courses	166	Child and Family Development Programs	94
Africana Studies Program	78	Business Administration Courses - BADM	163	Child Care Centers	33
AGRI Courses	156	Business Administration Program	103	CHIN Courses	171
Agriculture Courses - AGRI	156	Business Administration, School of	100	Chinese Courses - CHIN	171
Agriculture Programs	119	Business and Professional Studies (Harmon College of):		CHST Courses	171
Air Force ROTC	112	School of Business Administration:		Choose Red Grant	16
Airport	31	Department of Economics, Finance		CIS Courses	171
Alcohol and Other Substances	19	and Marketing	101	CJ Courses	172
Alumni Association	31	Department of Management	104	Class Attendance	20
ANTH Courses	157	School of Accountancy and Computer		Class Schedules (Changes in)	24
Anthropology Courses - ANTH	157	Information Systems	106	Classification of Students	21
Anthropology Program	77	School of Professional Studies:		Clinical Experiences	90
Application for Graduation	27	Department of Aviation	109	CMGT Courses	174
Applied Behavior Analysis (ABA) Certificate	136	Department of Communication Disorders		Coaching Program	133
Applied Lean Six Sigma Quality Certificate	145	and Social Work	112	College of Arts, Humanities, and Social Sciences	61
Apply (How to)	4	Department of Criminal Justice	115	College of Business and Professional Studies (Harmon)	100
Army ROTC	116	Department of Military Science and Leadership	116	College of Education	88
Art and Design (Department of)	78	Missouri Safety Center	117	College of Health, Science, and Technology	119
ART Courses	158	Business Continuity Certificate	118	College of Health, Science, and Tech. Courses - CHST	171
Art Courses - ART	158	Business Innovation Institute	31	COMM Courses	174
Art Programs	78	Business Law Courses - BLAW	166	Communication and Sociology (Department of)	61
Arts, Humanities, and Social Sciences (College of):		Business Teacher Education Courses - BTE	166	Communication Courses - COMM	174
Department of Communication and Sociology	61	Business Teacher Education Program	92	Communication Disorders and Social Work	
Department of English and Philosophy	67	CADD Courses	167	(Department of)	112
Department of Government, International Studies		Calendar	iv	Communication Disorders Courses - CD	168

Communication Disorders (Welch-Schmidt Center for).....	40	Dropping Classes.....	24	ESE Courses.....	188
Communication Programs.....	62	Dual Credit.....	10	ET Courses.....	189
Community Creed.....	1	Early Childhood Education Courses - ECEL.....	180	Exchange Program (Midwest Student).....	16
Computer Information Systems (School of Accountancy and).....	106	Early Childhood, Birth-Grade 3 Program.....	97	Extended Studies.....	34
Computer Information Systems Courses - CIS.....	171	Earth Science Courses - EASC.....	180	FAME Courses.....	190
Computer Information Systems Programs.....	108	Earth Science Programs.....	141	Family & Consumer Sciences Education Courses - FCSE..	191
Computer Science Courses - CS.....	177	EASC Courses.....	180	Family and Consumer Sciences Program.....	93
Computer Science Programs.....	127	ECEL Courses.....	180	Family Educational Rights and Privacy Act.....	18
Construction Management Courses - CMGT.....	174	ECON Courses.....	183	Farm (UCM Prussing).....	39
Construction Management Programs.....	146	Economics, Finance and Marketing (Department of).....	101	Fashion and Apparel Merchandising Courses - FAME.....	190
Contract (Learning to a Greater Degree).....	vi	Economics Courses - ECON.....	183	Fashion Merchandising Program.....	150
Cooperative Engineering 2-2 Program.....	147	Economics Programs.....	101	Fashion: Textiles and Clothing in Business Program.....	149
Corporate Communication Program.....	63	EDFL Courses.....	183	FCSE Courses.....	191
Corrections Programs.....	115	EDSP Courses.....	184	Fees and Expenses.....	14
Costs.....	14	Education (College of):		Field Experience Courses - FLDX.....	192
Counseling Center.....	33	Department of Career and Technology Education.....	91	Field Trips.....	21
Course Load Policy (Summer).....	20	Department of Educational Foundations and Literacy.....	93	FIN Courses.....	191
Course Overlap.....	43	Department of Educational Leadership and Human Development.....	94	Final Examinations.....	21
Course Numbers.....	26	Department of Elementary and Early Childhood Education.....	96	Final Grades and Transcripts.....	21
Course Prerequisites.....	26	Teacher Education.....	88	Finance Courses - FIN.....	191
Courses Prefixes.....	60	Educational Foundations and Literacy (Department of).....	93	Finance Programs.....	102
Creative Writing Program.....	69	Educational Foundations and Literacy Courses - EDFL.....	183	Financial Assistance.....	15
Credit (Types of).....	10	Educational Leadership and Human Development (Department of).....	94	Financial Need.....	16
Criminal Justice (Department of).....	115	EET Courses.....	185	Financial Responsibility.....	14
Criminal Justice Courses - CJ.....	172	Electronics Engineering Technology Courses - EET.....	185	Financial Services (Student).....	38
Criminal Justice Programs.....	115	Electronics Technology Courses - ET.....	189	Fire Science Program.....	143
Crisis and Disaster Management Courses - CDM.....	169	Electronics Technology Programs.....	148	Fitness/Wellness Program.....	133
Crisis and Disaster Management Programs.....	117	Elementary and Early Childhood Education (Department of).....	96	FLDX Courses.....	192
CS Courses.....	177	Elementary & Early Childhood Education Courses - ECEL..	180	Flight Courses - Airplane - FLYA.....	192
CTE Courses.....	178	Elementary Education Programs.....	97	Flight Courses - Helicopter - FLYH.....	193
Cultures Program (World Languages and).....	76	Elementary Education, Grades 1-6 Program.....	98	FLYA Courses.....	192
D&N Courses.....	179	Elliott Union.....	33	FLYH Courses.....	193
DANC Courses.....	179	Emergency Management Certificate.....	118	FOOD Courses.....	193
Dance Courses - DANC.....	179	Engineering Education Program (Technology &).....	93	Food Courses - FOOD.....	193
Dance (Department of Theatre and).....	85	Engineering Technology Courses - ENGT.....	187	Foods Program.....	134
Dance Program.....	85	Engineering Technology Program.....	148	Forensic Chemistry Program.....	140
Date of Catalog for Checking Degree Requirements.....	27	Engineering Technology Program (Systems).....	153	Forensic Science Program.....	122
Dean's List.....	23	ENGL Courses.....	186	Four-Year Academic Guides.....	60
Degree Audit (Central Degree, DegreeWorks).....	21	English and Philosophy (Department of).....	67	Fraternity Life.....	28
Degree Program Requirements.....	41	English Courses - ENGL.....	186	FREN Courses.....	194
Degree Revocation Policy.....	21	English Language Center.....	8, 34	French Courses - FREN.....	194
Degrees Available.....	41	English Programs.....	67	Gateway Advising and Major Exploration Center.....	32
DegreeWorks (Central Degree, Degree Audit).....	21	ENGT Courses.....	187	GED Applications.....	4
Design & Drafting Technology Courses - CADD.....	167	Enrollment Regulations.....	24	Gender & Sexuality Studies Program (Women,).....	67
Design & Drafting Technology Program.....	147	Enrollment Validation Policy.....	25	Gender Studies (Center for Women's and).....	67
Dietetics Program.....	133	Enrollment Verifications.....	25	General Education Assessment.....	45
Dietetics and Nutrition Courses - D&N.....	179	ENT Courses.....	188	General Education Policies.....	44
Digital Media Production Programs.....	62	Entrepreneurial Courses - ENT.....	188	General Education Program.....	44, 47
Dining Services.....	33	Entrepreneurship and Social Enterprise Courses - ESE.....	188	General Education Requirements.....	27
Dismissal, Academic.....	22	Entrepreneurship and Social Enterprise Programs.....	104	General Education (Transfer Students and).....	45
Distance Learning.....	33	Environmental Hazards Certificate.....	118	GEOG Courses.....	194
Diploma.....	37	Environmental, Physical and Applied Sciences (School of).....	138	Geographic Information Systems Program.....	142
Double Degrees.....	42			Geography Courses - GEOG.....	194
Double Majors.....	42			Geography Program.....	142
DRED Courses.....	180			GER Courses.....	195
Driver Education Courses - DRED.....	180			German Courses - GER.....	195
Driver Education.....	118			GISL Courses.....	195

Government, International Studies and Languages (Department of)	70	INST Courses.....	200	Military Science Program.....	117
Government, International Studies and Languages Courses - GISL	195	Institute for Public Safety	34	Military Service (Student Called to)	24
Grade Appeals.....	23	Institute for Rural Emergency Management.....	34	Minors	43, 59
Grade Point Average(s).....	22	Institute of Justice and International Studies	34	Mission Statement	i
Grade Requirements for Program Admission & Graduation.....	23	Institutional and Financial Information	13	Missouri Safety Center	36, 117
Grading System	22	Instructional Technology Courses - INST	200	Missouri Safety Center Courses - MSC	204
Graduation (Application for)	27	Instructional Technology Program	93	MKT Courses	203
Graduation with Honors	23	Instrumental Program	84	ML Courses.....	204
Grant (Choose Red)	16	Insurance and Safety.....	12	Modern Languages Courses - ML	204
GRAP Courses.....	195	Integrated Business Experience	101	Modern Languages Programs.....	75
Graphic Design Program.....	79	Integrative Studies General Courses - IGEN.....	199	MS Courses.....	204
Graphic Technologies Courses - GRAP	195	Intercollegiate Athletics and Organized Sports	28	MSC Courses.....	204
Graphic Technologies Program.....	150	Interior Design Program	80	Multipurpose Building.....	29
Graphics Program.....	151	International Center.....	34	MUS Courses	205
Greek Life.....	28	International Justice Program	116	Music (Department of)	81
Health Center (University).....	39	International Student Admissions.....	7	Music Courses - MUS.....	205
Harmon College of Business & Professional Studies	100	International Student and Scholar Services	35	Music Education Program	84
Health Education Courses - HED.....	196	International Studies Programs.....	72	Music Programs.....	82
Health Education Program.....	134	International Studies Courses - IS	200	Musical Theatre Program.....	86
Health, Science, and Technology (College of):		International Study	55	NET Courses.....	209
Department of Biology and Agriculture	119	International Study Abroad Courses - ISP	200	Networking Courses - NET	209
Department of Mathematics and Computer Science.....	124	IS Courses	200	Nondiscrimination/Equal Opportunity Statement	13
Department of Nursing	129	ISP Courses.....	200	Non-Resident Fee Credit.....	16
Department of Nutrition and Kinesiology	132	Kinesiology (Department of Nutrition and).....	132	Non-Traditional Student Services	36
Department of Psychological Science	136	KMOS-TV	35	NUR Courses	210
School of Environmental, Physical and Applied Sciences.....	138	Leon Six Sigma Quality Certificate (Applied)	145	Nursing (Department of).....	129
School of Technology	145	Learning to a Greater Degree Contract.....	vi	Nursing Courses - NUR	210
Health Studies Program	134	Legal Studies Program	74, 106, 116	Nursing Programs.....	131
HED Courses	196	LIB Courses.....	200	Nutrition and Kinesiology (Department of).....	132
HiSET Applications.....	54	Library Courses - LIB	200	Occupational Education Program	92
HIST Courses.....	197	Library Science and Information Services Courses - LIS	200	Occupational Safety and Health Program	143
History and Anthropology (Department of)	76	Library Services	35	On-Campus Housing	12
History Courses - HIST	197	LIS Courses.....	200	Open Option Program	53
History Programs	76	Literacy Courses - EDFL	183	Pass/Fail Program	25
HM Courses	198	Loans, Short-Term	17	PE Courses.....	211
Holds	25	Major Programs, List of	58	Peer Support.....	35
Honors College Program.....	51	Management (Department of).....	104	Performing Arts (School of Visual and).....	78
Honors College Retention Policy	52	Management Courses - MGT.....	202	Pertle Springs.....	29
Honors Courses - HONR.....	199	Management Programs.....	105	PHIL Courses	212
Honors (Graduation with)	23	Manufacturing Program	152	Philosophy Courses - PHIL.....	212
HONR Courses.....	199	Marketing (Department of Economics, Finance and)	101	Philosophy Programs	69
Hospitality Management Courses - HM	198	Marketing Courses - MKT.....	203	PHOT Courses.....	213
Hospitality Management Program.....	104	Marketing Programs	103	Photography Courses - PHOT.....	213
Hotel and Restaurant Administration Program.....	105	MATH Courses	200	Photography Programs.....	152
Housing.....	12	Mathematics and Computer Science (Department of).....	124	PHYS Courses.....	214
HRM Courses	199	Mathematics Courses - MATH	200	Physical Education Courses - PE	211
Human Resource Management Courses - HRM.....	199	Mathematics Programs	125	Physical Education Program	135
IBE (Integrated Business Experience)	101	McNair Scholars Program	30	Physics Courses - PHYS.....	214
IEP Courses (see English Language Center)		Medical Technology Program	123	Physics Programs	142
IGEN Courses	199	Meeting and Conference Services.....	35	Pilot Program	111
Individualized Major and Minor Programs	54	Mentoring, Advocacy and Peer Support	35	Planned Placement	9
INDM Courses	199	MGT Courses.....	202	Police Academy, Central Missouri.....	117
Industrial Management Courses - INDM	199	Middle School-Junior High School Program.....	93	Political Science Courses - POLS	215
Innovative Technologies Program.....	151	Midwest Student Exchange Program	16	Political Science Programs	70
		Military and Veteran Services	36	POLS Courses.....	215
		Military Science and Leadership (Department of).....	116	Pre-Law	54
		Military Science Courses - MS	204	President's Welcome	i
				Prerequisites	26

Pre-Professional Education	53	Short-Term Loans	17	Testing Services	38
Pre-Professional Programs	119	SM Courses	219	THEA Courses	221
Probation (Academic)	22	SOC Courses	219	Theatre and Dance (Department of)	85
Professional Education Requirements	90	Social Enterprise Programs, Entrepreneurship and	104	Theatre and Speech Communication Programs	86
Professional Photography Program	152	Social Science Courses - SOSOC	220	Theatre Courses - THEA	221
Professional Pilot Program	111	Social Studies Programs	77	Theatre Programs	87
Professional Studies (School of)	109	Social Work Courses - SOWK	220	Tobacco Policy	19
PSY Courses	216	Social Work Program	114	TOUR Courses	222
Psychological Science (Department of)	136	Social Work (Department of Communication Disorders and)	112	Tourism Courses - TOUR	222
Psychology Courses - PSY	216	Sociology Courses - SOC	219	Transcripts	37
Psychology Programs	137	Sociology (Department of Communication and)	61	Transfer Credit	10
Public Relations Programs	64	Sociology Programs	66	Transfer Students and General Education	45
Public Safety	37	Sorority Life	28	TRIO Student Support Services	31
Public Safety, Institute for	34	SOSOC Courses	220	UCM Foundation	38
Radiologic Technology Program	123	SOT Courses	220	UCM Summit Center	39
Readmission	5	SOWK Courses	220	Unauthorized Persons in Classrooms	21
REC Courses	217	SPAN Courses	221	Undergraduate Enrollment in Graduate Courses	26
Recreation and Wellness Center (Student)	29	Spanish Courses - SPAN	221	Unfinished Work	23
Recreation Courses - REC	217	Special Education Courses - EDSP	184	Union (Elliott)	33
Recreation Facilities	29	Special Education Programs	95	Union Station	39
Recreational Programs	29	Speech Communication & Theatre Programs	86	University Health Center	39
Refund Policy	14	Speech Communication Program	65	University Store	39
Registrar and Student Records	37	Speech-Language Pathology Program	113	Upper-Level Credit	27
Reinstatement	23	Sport Management Courses - SM	219	Vehicle Systems Certificate (Advanced)	145
REL Courses	217	Sport Management Program	136	Vehicles on Campus	19
Religious Studies (Center for)	61	Sport Nutrition Program	136	Veteran Benefits	17
Religious Studies Courses - REL	217	Sports (Intercollegiate Athletics and Organized)	28	Veteran Services	36
Religious Studies Program	61	STCH Courses	221	Visiting Students	5
Repeat Enrollment in Courses	25	Strategic Communication for Leaders Certificate	65	Vocal Program	85
Research	37	Student Experience and Engagement	38	Volunteer Programs	38
Residence	27	Student Financial Services	38	Waitlisting a Class	24
Residency (Missouri)	14	Student Organizations	28	Welch-Schmidt Center for Communication Disorders	40
Restaurant Administration Program (Hotel and)	105	Student Responsibility	18	WGS Courses	223
RN-BS Nursing Program	132	Student Volunteer Program	38	Withdrawal from the University	24
ROTC (Air Force)	112	Studio Art Program	81	Women, Gender and Sexuality Courses - WGS	223
ROTC (Army)	116	Study Abroad	55	Women's and Gender Studies (Center for)	67
Rural Emergency Management (Institute for)	34	Success Center	30	Women, Gender and Sexuality Studies Program	67
SAFE Courses	218	Success Program	4	World Languages and Cultures Program	76
Safety Management Program	143	Summer Course Load Policy	20	Writing Center	30
Safety Program	143	Summit Center (UCM)	39		
Safety Sciences Courses - SAFE	218	Supplemental Course Fees	14		
Satisfactory Academic Progress	16	Suspension (Academic)	22		
Scholarships	16	Sustainability Courses	154		
School of Accountancy and Computer Information Systems	106	Systems Engineering Technology Program	153		
School of Business Administration	100	T&OE Courses	222		
School of Environmental, Physical and Applied Sciences	138	Teacher Education Policies	88		
School of Graduate and Extended Studies	38	TECH Courses	221		
School of Professional Studies	109	Technology Certificate	154		
School of Technology	145	Technology Courses - TECH	221		
School of Technology Courses - SOT	220	Technology Education (Department of Career and)	91		
School of Visual and Performing Arts	78	Technology & Engineering Education Program	93		
Science Program	99	Technology & Occupational Education Courses - T&OE	222		
Science Teaching Courses - STCH	221	Technology, Office of	36		
Security Program	143	Technology Program	153		
Senior Citizens	6	Technology (School of)	145		
Shooting Range	29	Technology Support Center	37		
		Test Registration	38		



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