



2019-2020 Course Catalog

Early College Academy

Missouri Western State University

June 1

Deadline to register your
high school for fall and
year-long courses

December 1

Deadline to register your
high school for spring courses

*Courses will have limited availability
after these deadlines have passed.*





Missouri Western is an equal opportunity institution.

Why Early College Academy?

- Tuition is \$95/credit hour, less than half the cost of regular tuition at Missouri Western State University.
- General studies requirements can be completed through ECA.
- Many courses provide an opportunity for a head-start on a chosen career or for career exploration. Students who have already chosen a career path may take a portion of the required coursework as an ECA student.
- Each course provides multiple assessments throughout and awards college credit immediately upon completion of the class, unlike advanced placement.
- ECA students have MWSU academic advisors to help them choose the right ECA courses.
- There is no limit on the number of ECA courses that Missouri Western will accept.
- Missouri Western general studies are part of Core 42, meaning they will transfer as equivalents to other public post-secondary schools in Missouri.
- ECA courses enrich and extend the high school curriculum and help prepare students for the rigors of college classes.
- ECA students are considered Missouri Western students, making them eligible for a student ID card. The Griffon card allows students to:
 - Access and check out materials from the library
 - Obtain free tutoring from the Center for Academic Support
 - Attend Missouri Western cultural and athletic events (usually for free)
 - Use the fitness center and recreational facilities at no charge
 - Receive a Missouri Western parking permit and a free Missouri Western t-shirt!

Missouri Western is a member of



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Early College Advisory Board



PED 101

Tuition & Fees

Early College Academy tuition is \$95 per credit hour. Textbooks and materials* are provided at no cost. A student taking 15 credit hours of ECA coursework would save around \$3,800 in comparison to a first semester college student taking 15 credit hours and living at home, or \$8,000 in comparison to a first semester student living in a residence hall.

**Some courses have an additional fee for access codes for digital materials provided by the textbook publisher.*

Cost Comparison: Chemistry - 5 credit hours

MWSU ECA	MWSU On Campus***	Avg. of State Universities***
Tuition/fees.....\$475	Tuition/fees.....\$1,796.00	Tuition/fees.....\$2,742.60
Textbook and supplemental materials\$0	Textbook and supplemental materials\$98.40	Textbook and supplemental materials\$98.40
Total**\$475	Total*\$1,894.40	Total*\$2,841.00

** Plus one-time registration fee (\$15 at Missouri Western)

*** Based on FY 2019 Missouri Department of Higher Education data.

A typical three-credit-hour ECA course costs \$285 (3 credits at \$95/credit hour).

Student Eligibility

9th Grade

- Overall minimum grade point average of 3.0 (on a 4.0 scale)
- Score at the 90th percentile or above on the ACT or SAT
- Signed letters of recommendation from principal and guidance counselor
- Written permission from a parent or legal guardian

10th Grade

- Overall minimum grade point average of 3.0 (on a 4.0 scale)
- Signed letters of recommendation from principal and guidance counselor
- Written permission from a parent or legal guardian

11th and 12th Grades *with an overall grade point average between 2.5 – 2.99 (on a 4.0 scale)*

- Signed letters of recommendation from principal and guidance counselor
- Written permission from a parent or legal guardian

11th and 12th Grades *with an overall minimum grade point average of 3.0 (on a 4.0 scale) are automatically eligible for ECA courses.*

Learn More: (816) 271-4100
missouriwestern.edu/eca

Early College Academy Catalog

Types of Programs

Dual Credit

Missouri Department of Higher Education policy states:

As for any instructor of college-level courses, high school instructors of dual credit courses shall meet the requirements for faculty teaching in institutions of higher education, as stipulated for accreditation by the Higher Learning Commission. Dual credit instructors shall possess an academic degree relevant to what they are teaching and at least one level above the level at which they teach, except in programs for terminal degrees for which they must possess the same level of degree.

Instructors using credentials for qualification with a master's level degree in a discipline or subfield other than that in which he or she is teaching must have completed a minimum of 18 graduate credit hours in the discipline in which he or she is teaching.

As remuneration, MWSU provides textbooks for all students in the course. They remain the property of the high school until the course is discontinued or the textbook changes.

Collaborative Dual Enrollment

Our ECA collaborative programs (CLB) combine the expertise of the university professor with the skills and experience of the discipline-certified, approved high school teacher. Graduate hours in field are not required of the high school teacher. The trained high school teacher serves as a course facilitator, who assists with the delivery of the online course. MWSU faculty create the course content in alignment with the regular university course (including assessments) and provide mandatory annual training. The facilitator has some autonomy in daily tutoring within the parameters of the course structure and content set forth by the university faculty. The university faculty member maintains an open line of communication with both the student and the classroom guide through the duration of the course. In most cases, textbooks are loaned to the students at no additional cost.

High School Sponsored Online

Students may take, in general, any 100 or 200 level course that is offered at MWSU. High school sponsored courses are typically a designated high school class period that is overseen by a high school course monitor. The course monitor has access to the online component of the course in order to view student assignments, grades, and serve as a point of communication between the student and the instructor when necessary. Textbooks are loaned to the students at no additional cost.

University Flex Courses

Students may enroll in most 100 and 200 level Missouri Western coursework with our regular MWSU students, and still receive the \$95 tuition rate as long as the high school agrees to transcript high school credit for the course. This includes on campus and online. Students are responsible for purchasing their textbooks and ancillaries.

This includes summer semester, online and on-campus courses! Check the regular MWSU schedule at missouriwestern.edu/schedule for course availability.

Course Delivery Methods - Abbreviation Key

OC – On Campus at Missouri Western State University*

OL – Online (high school sponsored or University flex)*

DC – Dual Credit Courses in the High School, taught by approved high school teacher

CLB – Collaborative: Taught by the University instructor of record and the trained high school facilitator.

CTC – Career and Technical Centers

* Online and on campus classes are not offered every semester or every year.

CRAIG SCHOOL OF BUSINESS

Accounting

ACC 201 Introductory Financial Accounting

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL

An introduction to accounting for accounting and non-accounting majors. Accounting's role in the business environment. Accounting information acquisition, processing, reporting, and interpretation. Income statements, balance sheets, statements of cash flow, and statements of stockholders' equity and their related accounts explained from an information content perspective. Prerequisite(s): General Studies Math. Business majors must earn a grade of C or higher in MAT 112, MAT 116, MAT 147, MAT 165, or MAT 167.

ACC 202 Introductory Managerial Accounting

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL

An introduction to managerial accounting for users of managerial accounting information. Managerial accounting's functions, uses, users, and behavioral implications. Cost accounting concepts and strategic cost management. Budgeting and profitability analysis. Responsibility accounting and performance assessment. Prerequisite(s): ACC 201.

ACC 230 Accounting Techniques

Typically Offered: Fall, Spring

Credits: 1

OC

Procedures and systems of modern accounting. Must be taken prior to ACC 330. Prerequisite(s): ACC 201.

Entrepreneurship

ENT 201 Entrepreneurship I

Typically Offered: Fall

Credits: 3

OC

This course examines entrepreneurship's role in society and the economy, and the process of business creation from concept through business plan. Specific issues include: creativity and innovation; industry and market research and analysis; introduction to financial statements for purposes of planning and forecasting; introduction to financing options; the review of business plans and team development of an assigned plan. Prerequisite(s): ENG 104 and basic understanding of Microsoft Word and Excel.

CRAIG SCHOOL OF BUSINESS

Finance

FIN 210 Personal Finance

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL

An applied course in the creation and implementation of financial plans for individuals. Topics include the importance of financial planning, time value of money, taxation of individuals, credit management, major purchase evaluation, insurance, personal investing, and retirement planning.

General Business

GBA 110 Introduction to Business

Typically Offered: Fall, Spring

Credits: 3

OC

A general survey of business organizations and their activities including accounting, economics, finance, management, and marketing. Content delivery format is designed to introduce students to the basic study skills, writing requirements, testing methods, and information sources most relevant to a business education. RESTRICTION: Course admission will be limited to students with fewer than 24 hours of college credit including those in progress.

GBA 201 Business Analytics and Reporting

Typically Offered: Fall, Spring

Credits: 3

OC

Applications of productivity software with focus on Microsoft Excel and Access proficiency and big data business issues/problems. Students will use Excel and Access to analyze business data and make recommendations based on their analyses. Reports will be developed for written and oral presentations. Previous computer experience recommended.

GBA 210 Business Statistics I

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL

Basic course for students in business; data collection and tabulation, graphic representation, measures of central tendency and dispersion, probability, types of distributions, sampling estimation, hypothesis testing, simple linear regression and correlation. Concentration is on interpretation. Course includes microcomputer application. Prerequisite(s): General Studies Math. Business majors must earn a grade of C or higher in MAT 112, MAT 116, MAT 147, MAT 165, or MAT 167.

CRAIG SCHOOL OF BUSINESS

GBA 211 Business Law I

Typically Offered: Fall, Spring

Credits: 3

OC, OL

Introduction to the legal environment of business. Examines the constitutional and historical foundations of the American legal system; emphasizes contracts, personal property, bailments, and sales. Prerequisite(s): ENG 104.

GBA 220 Business Communications

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL

Designed to meet the needs of business for better written and oral communications. Covers principles of research, organization, and presentation of written memoranda, letters, and reports. Oral presentations help develop necessary skills required in a business environment. Prerequisite(s): COM 104 and either ENG 108 or ENG 112.

SCHOOL OF FINE ARTS

Art

ART 100 Introduction to Art

Typically Offered: Fall, Spring, Summer

Credits: 3 OC, OL, HS

General background in the history, philosophy, principles, and techniques of the visual arts.

CORE 42; MOTR ARTS 100; Art Appreciation

ART 110 Beginning Drawing I

Typically Offered: Fall, Spring

Credits: 3 OC

Elementary drawing with the figure, still life, landscape, and perspective in various media. Six studio hours.

CORE 42; MOTR PERF 105D; Studio Art - Introduction to Drawing

ART 120 Two-Dimensional Design

Typically Offered: Fall, Spring

Credits: 3 OC

ign principles and fundamentals in two-dimensional media using a problem-solving approach. Six studio hours.

ART 130 Introduction to Tools and Techniques

Typically Offered: Fall, Spring

Credits: 2 OC

Basic skills with studio hand tools and power equipment; emphasizes safety procedures. This course is a prerequisite for any studio art course except ART 110 and ART 120. Four studio hours.

ART 133 Introduction to Art Therapy

Typically Offered: Fall

Credits: 3 OC

This course provides an introduction to the definitions, historical roots, theoretical underpinnings, and basic elements of the field of art therapy. Course topics will include an examination of the major contributors to the field, what art therapists do, where art therapists work, how art-making can be used to affect behavioral, emotional, and psychological changes, and how art therapy can be used in the context of various psychological approaches. Students will experience first-hand a variety of art therapy interventions.

ART 140 Ceramics I

Typically Offered: Fall, Spring

Credits: 3 OC

Traditional and contemporary approaches to ceramics as an art form; emphasizes technical, historical, and aesthetic problems. Six studio hours.

SCHOOL OF FINE ARTS

ART 160 Beginning Drawing II

Typically Offered: Fall, Spring

Credits: 3

OC

The figure in various media; still life, landscape, and nonobjective directions; problems dealing with the complete drawing. Six studio hours. Prerequisite(s): ART 110 and ART 120.

ART 170 Three-Dimensional Design

Typically Offered: Fall, Spring

Credits: 3

OC

Emphasis on form and composition using a problem solving approach; exploration of a wide variety of three-dimensional materials and processes. Six studio hours. Prerequisite(s): ART 110 and ART 130.

ART 180 Fibers

Typically Offered: Fall, Spring

Credits: 3

OC

Introduction to basic fiber arts with an overview of materials and methods. Exploration of the media may include surface design, textile printing, fabric construction, weaving, papermaking, book construction, and sculptural techniques. Six studio hours. May be repeated for credit.

ART 205 Ancient Through Medieval Art

Typically Offered: Fall

Credits: 3

OC

A global art survey covering visual culture in Europe, Asia, Africa, and the Americas before c. 1400.

CORE 42: MOTR ARTS 101; Art History I

ART 210 Animation Fundamentals

Typically Offered: Fall, Spring

Credits: 3

OC

Study of the fundamental principles and mechanics of motion through animation. Students explore timing, spacing, weight, staging an image for clarity, emotion and storytelling, and learn to apply and manipulate the fundamental concepts to creatively animate an idea. May be repeated up to 4 times for credit. Prerequisite(s): ART 110, ART 120, ART 160, and credit or concurrent enrollment in ART 229.

ART 229 Design Software Applications

Typically Offered: Fall, Spring

Credits: 3

OC

Introduction to computer hardware, software and peripherals commonly used by professional artists. Beginning projects utilizing computer-assisted design. Prerequisite(s): ART 110 and ART 120.

SCHOOL OF FINE ARTS

ART 250 Motion Graphics

Typically Offered: Fall, Spring

Credits: 3

OC

This course is an introduction to Motion Graphics and Compositing, which includes the categories of commercial, interactive, broadcast, main title and music video. The course will include lectures, showcases and demonstrations of the history, techniques and applications of motion graphics in media. May be repeated for up to 4 times for credit. Prerequisite(s): ART 110, ART 120 and credit or concurrent enrollment in ART 229.

ART 255 Renaissance Through Modern Art

Typically Offered: Spring

Credits: 3

OC

A global art survey covering visual culture in Europe, Asia, Africa, and the Americas after c. 1400. Prerequisite(s): ART 205.

CORE 42: MOTR ARTS 102; Art History II

Cinema

CIN 100 Introduction to Film

Typically Offered: Fall

Credits: 3

OC

This course is designed to introduce the student to the language of film, its history, aesthetics, theory and technology. The course will critically examine the cinema from the early days of black and white silent films to the most recent blockbusters. Attendance at weekly screenings outside of class is required.

CIN 120 Film Theory and Criticism

Typically Offered: Fall (odd-numbered years)

Credits: 3

OC

Examination of various approaches to film theory and criticism including formal aspects of cinema, tools for stylistic analysis, and ideological implications of film. Attendance at weekly screenings outside of class is required. Prerequisite(s): CIN 100.

CIN 220 Film Studies

Typically Offered: Departmental Discretion

Credits: 3

OC

A rotating topics course focusing on various issues relating to the world of film. Topics include: History of Film, Women in Film, Film Genres, American Genres, and Film Directors. Attendance at weekly screenings outside of class is required. Prerequisite(s): CIN 120.

SCHOOL OF FINE ARTS

CIN 245 Production I

Typically Offered: Fall, Spring

Credits: 3

OC

Introduction to basic theory and practice of video production with emphasis on preproduction planning, scripting, directing, lighting, camera operation, editing and audio. Two hours lecture, two hours lab. Prerequisite(s): CIN 100.

CIN 253 Audio Production

Typically Offered: Fall (even-numbered years)

Credits: 3

OC

Professional techniques in audio recording, mixing, and editing for music, theatre, and film production, utilizing current digital technology. Prerequisite(s): CIN 245.

CIN 255 Editing I

Typically Offered: Fall

Credits: 3

OC

Intermediate level non-linear editing, building upon basic editing skills introduced in CIN 245. This course will provide a thorough grounding in operation of Final Cut Pro software with emphasis upon theoretical editing concepts and communication of content and meaning through visual language. Two hours lecture, two hours lab. Prerequisite(s): CIN 245.

Dance

DAN 101 Beginning Dance

Typically Offered: Fall, Spring

Credits: 2

OC

A beginning movement course in dance techniques and styles including elements of ballet and modern dance techniques. Emphasis is on body alignment, basic movement vocabulary and creativity. The course includes beginning instruction in theory and technique. Designed for students with little or no dance experience. Variable content course. Proper attire required. May be repeated for up to 8 hours of credit. Meets General Studies Category 5, Line 2 physical activity course.

DAN 110 Tap Dance I

Typically Offered: Fall

Credits: 2

OC

A beginning-level dance course in tap dance. Steps and methods of tap including dance terminology and rhythmic awareness, coordination, clarity of sound, and tap styles. Meets two days a week. Tap shoes required. Meets General Studies Category 5, Line 2 physical activity course. May be repeated for up to 8 hours of credit.

SCHOOL OF FINE ARTS

DAN 111 Jazz Dance I

Typically Offered: Spring

Credits: 2

OC

A beginning-level dance course in historical, musical and contemporary jazz dance technique. Class consists of a warm-up, across the floor and center combinations. Meets two days a week. Meets General Studies Category 5, Line 2 physical activity course. May be repeated for up to 8 hours of credit. Prerequisite(s): DAN 101 or instructor approval.

DAN 112 Modern Dance I

Typically Offered: Spring

Credits: 2

OC

A beginning-level dance course in contemporary modern dance technique. Class includes warm-up, center work, traveling movements and combinations, which promote stability, strength, movement of the torso, and alignment. Meet two days a week. Meets General Studies Category 5, Line 2 physical activity course. May be repeated for up to 8 hours of credit. Prerequisite(s): DAN 101 or instructor approval.

DAN 114 Ballet

Typically Offered: Fall

Credits: 2

OC

A beginning-level dance course in classical ballet technique. Emphasizes discipline, coordination, musicality, strength and flexibility. Includes barre, centre, adagio, allegro and reverence. This course meets three hours per week. Proper attire including pink (women) or black (men) ballet shoes required. Meets General Studies Category 5, Line 2 physical activity course. May be repeated for up to 8 hours of credit. Prerequisite(s): DAN 101 or instructor approval.

DAN 210 Tap Dance II

Typically Offered: Spring

Credits: 2

OC

A continuation of Tap Dance I. Students will build on their skills in tap, method, dance terminology, rhythmic awareness, clarity of sound, coordination and tap styles. Tap shoes are required. Prerequisite(s): DAN 110 or instructor approval.

SCHOOL OF FINE ARTS

DAN 211 Jazz Dance II

Typically Offered: Spring

Credits: 2

OC

An intermediate-level dance course. Emphasizes precise and consistent technique, flexibility, balance, control and retaining long combinations in a variety of jazz styles. Class includes warm-up, floor work, center, traveling, and dance combinations. This course meets two days a week. Proper attire required. Meets General Studies Category 5, Line 2 physical activity course. May be repeated for up to 8 hours of credit. Prerequisite(s): DAN 111 or instructor approval.

DAN 212 Modern Dance II

Typically Offered: Fall

Credits: 2

OC

An intermediate-level dance course in contemporary modern technique. Emphasis on release techniques, rhythmic precision, and spatial principles through extended complex combinations and athleticism. This class meets two days a week. Proper attire required. Meets General Studies Category 5, Line 2 physical activity course. May be repeated for up to 8 hours of credit. Prerequisite(s): DAN 112 or instructor approval.

Music

MUS 101 Perspectives in Music

Typically Offered: Fall, Spring, Summer

Credits: 3 OC, OL, HS

Music materials, forms, historical-social development of composers and compositions. Various themes may be pursued. May not be repeated for credit.

CORE 42: MOTR MUSC 100; Music Appreciation

MUS 103 Fundamentals of Music

Typically Offered: Departmental Discretion

Credits: 2 OC, OL

Materials of music through triads and simple double and triple rhythm; includes music reading/aural recognition. Meets three hours per week.

CORE 42: MOTR MUSC 101; Music Fundamentals

MUS 117 Theory and Analysis 1

Typically Offered: Spring

Credits: 2

OC

Review of notation of pitch and rhythm, meter, scales and scale degree names, and modes. Study of the procedures of part-writing of triads and inversions. Includes instrument ranges and transpositions. Prerequisite(s): MUS103 or department approval. Meets three days a week.

SCHOOL OF FINE ARTS

MUS 118 Aural Training 1

Typically Offered: Spring

Credits: 1

OC

This course sequence is designed to develop the practical skills of the music major through sight-singing, dictation, improvisation, composition, and to integrate theoretical concepts (the Theory and Analysis sequence) with various styles of music. Content includes pitch and rhythm, scales and modes, meters, intervals, trends and seventh chords, and embellishment. Meets two days a week.

MUS 140 Community Chorus

Typically Offered: Fall, Spring

Credits: 1

OC

Group singing of various styles of music literature. Meets two hours per week.

CORE 42: MOTR PERF 102C; Music Performance - Choir

MUS 217 Theory and Analysis 2

Typically Offered: Fall

Credits: 2

OC

Study of cadences, phrases, periods, non-chord tones, and part-writing procedures for diatonic seventh chords and their inversions. Meets three days a week. Prerequisite(s): MUS 117.

MUS 218 Aural Training 2

Typically Offered: Fall

Credits: 1

OC

A continuation of MUS 118. Content includes dominant/tonic phrase model, embellishment, chordal expansion and variations, other cadences, sequence patterns, secondary dominants, and motive development. Includes improvisation and composition. Meets two days a week. Prerequisite(s): MUS 117 and MUS 118.

Theatre

THR 113 Introduction to Theatre

Typically Offered: Fall, Spring, Summer

Credits: 3 OC, OL, HS

The contributions made by directors, actors, designers, technicians, and playwrights to modern dramatic productions. Participation in a production as performer, member of stage or construction crew, or members of production committee may be required.

CORE 42: MOTR THEA 100A; Theatre Appreciation

SCHOOL OF FINE ARTS

THR 140 Production Participation

Typically Offered: Fall, Spring

Credits: 1-3

OC

Supervised practical work for a departmental theatrical mainstage production (includes work onstage, backstage and preproduction). May be repeated for a total of 9 credit hours.

THR 221 Technical Production 1

Typically Offered: Fall

Credits: 3

OC

Designed to acquaint the student with the fundamentals of scenic construction and mechanics of stage lighting, the course will include studies in drafting, technical planning, basic shop tools, and techniques, construction of scenery and stage electrical equipment and practices.

THR 222 Costume and Makeup Techniques

Typically Offered: Fall

Credits: 3

OC

This course will cover the basics of theatrical costuming. Students will use sewing machines, and hand stitching to create garments. Additionally, techniques for fitting garments, and knowledge of fabric fibers will be included. Prerequisite(s): THR 221.

THR 228 Acting I

Typically Offered: Fall

Credits: 3

OC

Basic principles of acting theory. Studio work emphasizing warm-up techniques, improvisations, monologue and scene work. Two hours lecture, two hours lab.

THR 275 Script Analysis

Typically Offered: Fall (even-numbered years)

Credits: 3

OC

A critical study of script formats: mastery of character and scene development used in works of dramatic literature and the practical application of this research to create a more dynamic and interesting character on stage. Prerequisite(s): THR 113 and ENG 104.

LIBERAL ARTS & SCIENCES

Applications of Computer Technology

ACT 102 Introduction to Web Page Development

Typically Offered: Fall, Spring

Credits: 3 OC, HS

This course is an introduction to the design, creation, and maintenance of web pages and websites. Students learn how to critically evaluate website quality, create and maintain quality web pages, investigate web design standards, and create and manipulate images. The course progresses through web design tools HTML, XHTML, Cascading Style Sheets, and concludes with PHP. Each student will develop a fictitious organization website.

ACT 202 Introduction to Web Graphics

Typically Offered: Fall

Credits: 3 OC, HS, OL

This course provides a comprehensive introduction to the Adobe Design Suite exploring the design applications Illustrator, Fireworks, Flash, and Photoshop CS. With the use of exercises and projects, the student will develop an extensive understanding of the tools and methods associated with the software. Real-world issues will be addressed to build problem-solving and critical thinking skills necessary for advanced course work. Prerequisite(s): A grade of C or higher in ACT 102.

ACT 211 Internet Scripting

Typically Offered: Fall

Credits: 3 OC

This course covers basic internet scripting technologies such as PHP, JavaScript, and ASP. Prerequisite(s): A grade of C or higher in ACT 102 and CSC 184.

Biology

BIO 101 Principles of Biology

Typically Offered: Fall, Spring

Credits: 4 OC, OL, HS, CLB

Introductory course on the principles of living phenomena intended for students not major in biology. Meets General Studies Category 2, Line 1 requirement. Three hours lecture, two hours lab.

CORE 42: MOTR BIOL 100L; Essentials in Biology with Lab

LIBERAL ARTS & SCIENCES

BIO 105 Principles of Organismal Biology

Typically Offered: Fall, Spring

Credits: 4

OC

Examines basic concepts and principles of evolutionary biology, behavior, ecology, physiology and morphology at the organismal level. Three hours lecture, three hours lab per week. LAS Writing. Prerequisite(s): ACT math score of 22 or higher or a score of 70 or higher on the MWSU Math Placement Exam or the equivalent, ACT English score of 18 or higher or the equivalent, and ACT reading score of 18 or higher or the equivalent.

CORE 42: MOTR BIOL 150L; Biology w/Lab

BIO 106 Principles of Cell Biology

Typically Offered: Fall, Spring

Credits: 4

OC

This introductory biology course examines the structure and function of animal and plant cells, interactions between cells, intra- and intercellular signaling mechanisms and basic cellular biochemistry. Within the above context, students are also introduced to basic concepts of molecular biology and development. Three hours lecture, three hours lab. LAS Writing. Prerequisite(s): ACT math score of 22 or higher or a score of 70 or higher on the MWSU Math Placement Exam or the equivalent, ACT English score of 18 or higher or the equivalent, and ACT reading score of 18 or higher or the equivalent.

CORE 42: MOTR BIOL 150L; Biology with Lab

BIO 205 Genetics

Typically Offered: Fall, Spring

Credits: 4

OC

Explore and study classical, molecular, and evolutionary genetics. Three hours lecture and three hours lab per week. Prerequisite(s): BIO 106 and CHE 111 with a grade of C or higher.

BIO 209 Introduction to Wildlife Conservation

Typically Offered: Spring

Credits: 3

OC

This course surveys the historic and modern development of conservation biology. How the principles of conservation are applied to the management, restoration, and preservation of wildlife natural resources is emphasized. Prerequisite(s): BIO 105 with a grade of C or higher. BIO 225 recommended.

BIO 225 Ecology

Typically Offered: Fall, Spring

Credits: 4

OC

Covers principles of ecology and evolution, including field and research methods. Three hours lecture, three hours lab. LAS Computer Literacy. Prerequisite(s): A grade of C or higher in BIO 105.

LIBERAL ARTS & SCIENCES

BIO 250 Anatomy and Physiology

Typically Offered: Fall, Spring, Summer

Credits: 5

OC

Concepts of human structure and function and relationships of these concepts to cells, tissues, organs and systems. Four hours lecture, two hours lab.

Prerequisite(s): A grade of C or better in either BIO 101 or BIO 106.

CORE 42: LIFS 150L; Human Biology with Lab

BIO 251 Medical and Public Health Microbiology

Typically Offered: Fall, Spring

Credits: 4

OC

Medically significant microorganisms, their characteristics, relationship to disease, transmission, and control methods. Three hours lecture, three hours lab.

Prerequisite(s): BIO 101 or BIO 106 and CHE 101, CHE 104 or CHE 111 each with a grade of C or higher.

Chemistry

CHE 101 Introductory Chemistry

Typically Offered: Fall, Spring

Credits: 4

OC

Chemistry for liberal arts and sciences students; meets the minimum physical science requirement. Three hours lecture, two hours lab.

CORE 42: MOTR CHEM 100L; Essentials in Chemistry with Lab

CHE 104 Fundamentals of Chemistry

Typically Offered: Fall, Spring

Credits: 5

OC, OL

A survey of chemistry with special emphasis on solution and biochemistry; for students majoring in scientific and technological fields such as nursing. Four hours lecture, two hours lab.

CORE 42: MOTR CHEM 100L; Essentials in Chemistry with Lab

CHE 111 General Chemistry I

Typically Offered: Fall, Spring

Credits: 5

OC, HS, CLB

Basic concepts of chemistry: atomic theory and periodic system, chemical calculations, oxidation-reduction, states of matter, theory of chemical bonding, atomic structures. Four hours lecture, three hours lab. Prerequisite(s): Mat ACT of 22 or higher or a score of 70 or higher on the MWSU Math Placement Exam or the equivalent.

CORE 42: MOTR CHEM 150L; Chemistry with Lab

LIBERAL ARTS & SCIENCES

CHE 112 Problem Solving for General Chemistry I

Typically Offered: Fall, Spring

Credits: 1

OC

Elective course to accompany CHE111 General Chemistry I. Focused instruction on problem solving strategies and tools associated with course content of General Chemistry I. Topics include symbolic chemical language, mathematics of General Chemistry, unit conversions and unit analysis, essential graphing, word problem strategies, employing technology to solve problems, and critical analysis of results. This course must be taken concurrently with CHE 111. Graded on a pass/fail basis.

CHE 120 General Chemistry II with Qualitative Analysis

Typically Offered: Fall, Spring

Credits: 5

OC

Continuation of CHE 111. Thermochemistry, equilibrium, electrochemistry, radiochemistry, coordination chemistry, and a survey of the main group elements and their compounds. Laboratory includes the topics above along with the separation and identification of some of the more common anions and cations by qualitative analysis. Four hours lecture, three hours laboratory. Prerequisite(s): A grade of C or higher in CHE 111 and a grade of C or higher in MAT 116, or a Math ACT of 25 or higher, or the equivalent.

CHE 121 Problem Solving for General Chemistry II

Typically Offered: Fall, Spring

Credits: 1

OC

Elective course to accompany CHE120 General Chemistry II. Focused instruction on problem solving strategies and tools associated with course content of General Chemistry II. Topics include mathematics of General Chemistry II including applications of algebra for solving problems in kinetics, thermodynamics and chemical equilibria, and solving complex word problems. This course must be taken concurrently with CHE 120. Graded on a pass/fail basis.

CHE 167 Chemical Applications of Calculus

Typically Offered: Departmental Discretion

Credits: 1

OC

Applications of differentiation, integration, and logarithmic and exponential functions to chemical processes. The initial focus will be in chemical dynamics and more specifically on chemical kinetics. Applications using maxima, minima and inflections will be used for equilibrium systems. Prerequisite(s): Credit or concurrent enrollment in MAT 167.

LIBERAL ARTS & SCIENCES

Chinese

CHI 100 Elementary Chinese I

Typically Offered: Fall, Spring

Credits: 3

OC

Beginning study of Chinese language and culture, including speaking, listening, reading and writing. Focus on topics of personal interest and activities.

CORE 42; MOTR LANG 105; Foreign Language I

CHI 101 Elementary Chinese II

Typically Offered: Fall, Spring

Credits: 3

OC

Continued study of Chinese language and culture, including speaking, listening, reading and writing. Focus on topics of personal interest and activities. Students must earn a minimum grade of C in order to continue in sequenced language courses. Prerequisite(s): A grade of C or higher in CHI 100.

CORE 42; MOTR LANG 106; Foreign Language II.

CHI 200 Intermediate Chinese I

Typically Offered: Fall, Spring

Credits: 3

OC

Through classroom interaction, students develop oral and written skills needed for practical and daily-life situations; study linguistic structures and functions needed to ask questions, compare, contrast, and describe; develop reading skills and expand vocabulary; and increase cultural awareness of the Chinese-speaking world. Students must earn a minimum grade of C in order to continue in sequenced language courses. Prerequisite(s): A grade of C or higher in CHI 101.

CHI 201 Intermediate Chinese II

Typically Offered: Fall, Spring

Credits: 3

OC

Through classroom interaction, students further develop oral and written skills needed for practical and daily-life situations; study in greater depth linguistic structures and functions needed to ask questions, narrate, compare, contrast, and describe; build reading skills and expand vocabulary; and increase cultural awareness of the Chinese-speaking world. Prerequisite(s): A grade of C or higher in CHI 200.

LIBERAL ARTS & SCIENCES

Communication Studies

COM 104 Oral Communication

Typically Offered: Fall, Spring, Summer

Credits: 3 OC, HS, OL

Principles of speech as applied in meaningful participation in society.

CORE 42; MOTR COMM 110; Fundamentals of Public Speaking

COM 195 Applied Debate and Forensics

Typically Offered: Fall, Spring

Credits: 3 OC

This course introduces the theory of argumentation. Principles of analysis, evidence, reasoning, preparing and evaluating arguments, briefing, refutation, and case construction are prepared and practiced. Students will participate in debate tournaments. May be repeated for a total of 24 credit hours. Graded pass/fail.

COM 205 Introduction to Mass Media

Typically Offered: Fall

Credits: 3 OC, HS, OL

Exploration of the history and development of the mass media in the United States and mass communication theory. Also includes discussion of issues currently affecting the media, including newspapers, film, radio, and television as well as advertising and public relations. Prerequisite(s): COM 104.

COM 210 Presentational Communication

Typically Offered: Fall

Credits: 3 OC

Theory and practice of constructing public presentations including: media use, organization, delivery, means of appeal, and analysis of audience and setting. LAS Ethics. Prerequisite(s): COM 104.

COM 215 Introduction to Public Relations

Typically Offered: Spring

Credits: 3 OC

This introductory course examines the practice of public relations, how public relations operates in organizations, its impact on publics and its functions in society including theory and models, social media usage, current trends, and ethical professional standards. LAS Writing; LAS Ethics. Prerequisite(s): COM 104.

LIBERAL ARTS & SCIENCES

COM 222 Communication Theory

Typically Offered: Fall

Credits: 3

OC

Introduction to the role theory plays in the study of human communication. Introduces different ways of thinking about communication through academic, cultural and historical perspectives. Prerequisite(s): COM 104..

COM 227 Interviewing Principles and Practices

Typically Offered: Fall

Credits: 3

OC

Examines the interviewing process in a wide range of contexts, including selection, appraisal, discipline, negotiation, research, and media interviews. Emphasis is placed on the practice of interviewing and applying communication concepts to selected interview settings. Prerequisite(s): COM 104.

Computer Science

CSC 184 Computing Concepts I

Typically Offered: Fall, Spring

Credits: 3

OC, HS

Introduction to problem solving utilizing the Java programming language. Topics include algorithm and program development, syntax of java in input/output, assignment operations, program control structures, character data manipulation, functions, and single dimension arrays. LAS Computer Literacy. Prerequisite(s): A grade of C or higher in either ACT 102 or EGT 102, or an ACT math score of 22 or higher or the equivalent.

CSC 200 Computer Systems and Architectures

Typically Offered: Fall

Credits: 3 OC, HS, OL

This course is an introduction to microcomputer systems including the Windows operating system and microcomputer architecture. IT infrastructures including database, networking, and systems development as well as basic hardware/software concepts will be emphasized. Security and ethical issues are considered throughout the course. This course will not be accepted as a Computer Science elective for CSC degree programs.

LIBERAL ARTS & SCIENCES

CSC 201 Microcomputer Applications

Typically Offered: Fall, Spring

Credits: 3 OC, HS, OL

Applications of productivity software such as Microsoft Office Word, Excel, Access, and PowerPoint for careers, school, and home. Impact of technology on society by computer information systems, networks, e-commerce, and the Internet is included. Previous computer experience recommended.

CSC 208 Discrete Structures I

Typically Offered: Fall

Credits: 3 OC

This course is a study of mathematical reasoning including the nature and methods of proof, relations and functions, combinatorics and graph theory, Boolean algebra, and applications of these topics. Attention will be given to the direct applications to computer science. Prerequisite(s): A grade of C or higher or concurrent enrollment in both CSC 254 and MAT 166 or MAT 167.

CSC 254 Computing Concepts II

Typically Offered: Fall, Spring

Credits: 3 OC

This course is a continuation of CSC 184. Topics include multidimensional arrays and array processing, elementary sorting and searching techniques, classes, dynamic memory allocation, linked lists, data abstraction, and GUI interface creating. Prerequisite(s): A grade of C or higher in CSC 184.

CSC 274 Introduction to Unix/Linux

Typically Offered: Spring

Credits: 3 OC

An introductory course on UNIX/Linux and its applications. Topics covered include: basic commands and system structures; system tools; output redirection; command line text editing, e-mail and system calls; file system basics; and, basic shell scripting. Basic security issues will also be discussed. The course material is intended to prepare students for versatile use of any UNIX/Linux system and as a foundation for numerous UNIX/Linux certification programs. Prerequisite(s): A grade of C or higher in CSC 184.

CSC 285 Data Structures

Typically Offered: Spring

Credits: 3 OC

Topics include algorithm analysis and the implementation of stacks, queues, linked lists, trees, and other data structures. Principles of data abstraction are emphasized throughout the course. Prerequisite(s): A grade of C or higher in both CSC 254 and MAT 112, MAT 116, or higher.

LIBERAL ARTS & SCIENCES

CSC 289 Computational Methods for Computer Science

Typically Offered: Spring (even-numbered years) **Credits: 3** **OC**

This course provides the underlying mathematical foundations and applied algorithms that are used across the basic fields in Computer Science. The course will focus on the computational algorithms in the fields of semantic search, data encryption and computer security, computer graphics, gaming and simulation. Further the course will consider the impact/computational limitations of current hardware on the application of these algorithms.

Prerequisite(s): A grade of C or higher in CSC 254.

CSC 294 Networking and Telecommunications

Typically Offered: Fall **Credits: 3** **OC**

An examination of current computer communication technologies and their protocol structures as applied to computer networks and telecommunication systems. Topics include the physical layers, architectural elements, and information layers of a communication network; protocols; switching; routing; LANs; and WANs. Prerequisite(s): A grade of C or higher in CSC 184.

Earth Science

ESC 111 Physical Geology

Typically Offered: Fall, Spring, **Credits: 4** **OC**

Course Description: Survey of geologic materials and processes, including quantitative and qualitative methods for studying geology. Three hours lecture, two hours lab.

CORE 42: MOTR GEOL 100L; Geology with Lab

Economics

ECO 101 Current Issues in the Economy

Typically Offered: Fall, Spring, Summer **Credits: 3** **OC, OL**

Introductory course covering current economic events and economic problems facing society. Topics include health care, the environment, crime and poverty, globalization, and recession and growth in the national economy. As the economic aspects of these issues are explored, the student is introduced to the methods used by economists to analyze problems and to develop possible solutions.

CORE 42: MOTR ECON 100; Introduction to Economics

LIBERAL ARTS & SCIENCES

ECO 260 Principles of Macroeconomics

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL

Introduction to basic principles of economics with emphasis on the analysis of unemployment, GDP, inflation, and public debt; discusses fiscal and monetary theories and public policies.

CORE 42: MOTR ECON 101; Introduction to Macroeconomics

ECO 261 Principles of Microeconomics

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL

Introduction to economic fundamentals with emphasis on supply and demand analysis, factor markets, different market structures, international economics, and various economic problems.

CORE 42: MOTR ECON 101; Introduction to Microeconomics

English

ENG 104 College Writing and Rhetoric

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL, HS, CLB

Instruction in reading and writing; emphasizes expository prose. Fulfills first half of the general studies requirement in English composition. Prerequisite(s): A grade of C or higher in RDG 095, or an ACT Reading score of 18 or higher, or a passing score on the Accuplacer test. A grade of C or higher in ENG 100, or an ACT English score of 18 or higher, or a passing score on the Writing Placement Examination. (See class schedule for information about placement exams)

CORE 42: MOTR ENGL 100; Composition I

ENG 108 College Writing and Research

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL, CLB

Instruction in college-level research and rhetoric: continued practice in college-level writing. Fulfills second half of the General Studies requirement in English composition. Prerequisite(s): A grade of C or higher in ENG 104.

CORE 42: MOTR ENGL 200; Composition II

LIBERAL ARTS & SCIENCES

ENG 112 Honors Composition and Rhetoric

Typically Offered: Fall

Credits: 3

OC

An enriched course on rhetoric, argument, and academic research open to students who achieve superior scores on the Writing Placement Examination (WPE) administered by the Department of English and Modern Languages, or who score 26 or higher on the ACT English subtest. This course fulfills the English composition requirement for basic skills in general studies for four-year degree programs. (See class schedule for information about the WPE.)

ENG 210 Approaches to Literature

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL

A General Studies course emphasizing ways of reading and writing about multiple genres of literature. Various thematic approaches may be offered. Course may not be repeated for credit.

CORE 42: MOTR LITR 100; Introduction to Literature

ENG 220 Introduction to Reading Texts

Typically Offered: Fall, Spring

Credits: 3

OC

A General Studies course designed primarily for English majors emphasizing ways of reading and writing about literature texts.

ENG 232 Language Awareness

Typically Offered: Fall, Spring

Credits: 3

OC, OL

An introduction to linguistics in which students study and apply principles and theories about the roots, acquisition, nature, and functions of language, including its sounds, structures, and symbols, its relation to speech communities and culture, and its current and future state. Assignments develop analytic skills and promote an understanding and appreciation of linguistic variety. Prerequisite(s): ENG 108 or ENG 112.

ENG 245 Introduction to Creative Writing

Typically Offered: Fall, Spring

Credits: 3

OC

Students will test their talents at creating poetry, short fiction, and literary creative nonfiction to prepare them for upper-level coursework. Assignments and texts will provide students the fundamental terms and concepts that apply to the craft of creating each genre. Also, students will analyze the craft of both classics and contemporary pieces that show mastery. Each student will create a course portfolio that showcases her or his best works in all genres. Prerequisite(s): A grade of C or higher in ENG 104.

LIBERAL ARTS & SCIENCES

English Technical Communication

ETC 200 Introduction to Technical Communication

Typically Offered: Fall

Credits: 3 **OC, OL**

Workshop in technical style emphasizing shorter forms of technical writing as well as proposals and reports. Students are introduced to processes for producing documents in workplace, technical, and professional settings. They will also apply word processing software appropriate software for completing work professionally, including basics of graphics, styles, format, and layout. LAS Ethics; LAS Computer Literacy. Prerequisite(s): ENG 104

ETC 210 Introduction to Digital Humanities

Typically Offered: Fall

Credits: 3 **OC**

Introduction to creating, publishing and working with information and ideas as they relate to emerging forms of humanities, scholarly production, and digital methodologies. The course introduces the basic vocabulary of concepts and tools in digital humanities, and will acquaint students with critical work, resources in the field, and hands-on experience, including environments and tools for producing, curating, and interacting with knowledge that is “born digital” and lives in various digital contexts. Student projects will integrate the investigation, analysis, synthesis and presentation of information in electronic form.

ETC 224 Web Content and Design

Typically Offered: Fall

Credits: 3 **OC**

Students will learn the elements of effective writing for screen-based textual content in internet and intranet environments, using HTML and appropriate software to create both personal and professional Web sites to gain valuable hands-on experience. Introduces overview of context provider issues, including usability, intellectual property, security, access, database content language, writing and design. Same as JOU 224. Prerequisite(s): ENG 104.

LIBERAL ARTS & SCIENCES

French

FRE 100 Elementary French I

Typically Offered: Fall

Credits: 3

OC, HS

Beginning study of French language and culture, including speaking, listening, reading and writing. Focus on topics of personal interest and activities, using primarily the present tense. Students whose high school transcripts show three or more years of French (with a grade of C or higher, and within three years of the semester in question) should attempt the placement exam because they will receive audit credit only should they enroll in this course.

CORE 42; MOTR LANG 101; French I

FRE 101 Elementary French II

Typically Offered: Spring

Credits: 3

OC, HS

Continued study of French language and culture, including speaking, listening, reading and writing. Focus on topics of personal interest and activities.

Students must earn a minimum grade of C in order to continue in sequenced languages courses. Prerequisite(s): A grade of C or higher in FRE 100.

CORE 42; MOTR LANG 102; French II

FRE 200 Intermediate French I

Typically Offered: Fall

Credits: 3

OC, HS

Through classroom interaction, students develop oral and written skills needed for practical and daily-life situations; study linguistic structures and functions needed to ask questions, compare, contrast, and describe; develop reading skills and expand vocabulary; and increase cultural awareness of the French-speaking world. Students must earn a minimum grade of C in order to continue in sequenced languages courses. Prerequisite(s): A grade of C or higher in FRE 101 or departmental approval.

FRE 201 Intermediate French II

Typically Offered: Spring

Credits: 3

OC, HS

Through classroom interaction, students further develop oral and written skills needed for practical daily-life situations; study in greater depth linguistic structures and functions needed to ask questions, narrate in three tenses, compare and contrast, describe; build reading skills and expand vocabulary; and increase cultural awareness of the French-speaking world. Students must earn a minimum grade of C in order to continue in sequenced languages courses. Prerequisite(s): A grade of C or higher in FRE 200 or departmental approval.

LIBERAL ARTS & SCIENCES

FRE 211 French for the Professional

Typically Offered: Departmental Discretion

Credits: 3

OC

A pragmatic approach to the continued development of the skills of listening, reading, writing, and speaking in French, as well as concentrating on increased awareness of French customs and culture. This course is recommended for students pursuing a business major, as well as those who want to acquire more confidence in practical use of French. Prerequisite(s): FRE 200 or equivalent.

Geography

GEO 100 World Geography

Typically Offered: Fall, Spring

Credits: 3

OC, OL

A systematic and regional analysis of the world's diverse cultural realms emphasizing the five themes of geography (location, place, interaction of people and the physical environment, movement, and region).

CORE 42: MOTR GEOG 101; World Regional Geography

GEO 160 Physical Geography

Typically Offered: Departmental Discretion

Credits: 4

OC,OL

Analysis of Earth's physical systems, Earth-Sun relationships, weather and climate, soils and landforms, fluvial processes, global vegetation, exercises involving data collection, aerial photography and map interpretation, and data analysis. Three hours lecture and two hours lab. Students must register for both lecture and lab.

CORE 42: MOTR GEOG 100L; Physical Geography with Lab

German

GER 100 Elementary German I

Typically Offered: Fall

Credits: 3

OC

Beginning study of German language and culture, including speaking, listening, reading and writing. Focus on topics of personal interest and activities, using primarily the present tense. Students whose high school transcripts show three or more years of German (with a grade of C or higher, and within three years of the semester in question) should attempt the placement exam because they will receive audit credit only should they enroll in this course.

CORE 42: MOTR LANG 105; Foreign Language I

LIBERAL ARTS & SCIENCES

GER 101 Elementary German II

Typically Offered: Spring

Credits: 3

OC

Continued study of German language and culture, including speaking, listening, reading and writing. Focus on topics of personal interest and activities. Students must earn a minimum grade of C in order to continue in sequenced languages courses. Prerequisite(s): A grade of C or higher in GER 100.

CORE 42; MOTR LANG 106; Foreign Language II

GER 200 Intermediate German I

Typically Offered: Fall

Credits: 3

OC

Through classroom interaction, students develop oral and written skills needed for practical and daily-life situations; study linguistic structures and functions needed to ask questions, compare, contrast, and describe; develop reading skills and expand vocabulary; and increase cultural awareness of the German-speaking world. Students must earn a minimum grade of C in order to continue in sequenced languages courses. Prerequisite(s): A grade of C or higher in GER 101.

GER 201 Intermediate German II

Typically Offered: Spring

Credits: 3

OC

Through classroom interaction, students further develop oral and written skills needed for practical and daily-life situations; study in greater depth linguistic structures and functions needed to ask questions, narrate in three tenses, compare and contrast, describe; build reading skills and expand vocabulary; and increase cultural awareness of the German-speaking world. Students must earn a minimum grade of C in order to continue in sequenced languages courses. Prerequisite(s): A grade of C or higher in GER 200.

GER 211 German for the Professional

Typically Offered: Departmental Discretion

Credits: 3

OC

A pragmatic approach to the continued development of the skills of listening, reading, writing, and speaking in German, as well as concentrating on increased awareness of German customs and culture. This course is recommended for students pursuing a business major, as well as those who want to acquire more confidence in practical use of German. Prerequisite(s): GER 200.

LIBERAL ARTS & SCIENCES

History

HIS 120 Modern World History

Typically Offered: Departmental Discretion

Credits: 3

OC

A survey of the political, social, and economic history of the world (Europe, Africa, Middle East, India, Far East, and Latin America) from 1815 to the present.

CORE 42: MOTR HIST 202; World History II

HIS 140 American History to 1865

Typically Offered: Fall, Spring

Credits: 3 OC, HS, OL

The discovery of America to the end of the Civil War; colonial America, the Revolution, national development, sectionalism, and the Civil War.

CORE 42: MOTR HIST 101; American History I

HIS 150 American History since 1865

Typically Offered: Fall, Spring

Credits: 3 OC, HS, OL

Continuation of HIS 140. Reconstruction, industrialization, urbanization, emergence as a world power, progressivism, World War I, the New Deal, World War II, and postwar America.

CORE 42: MOTR HIST 102; American History II

HIS 200 Ancient and Medieval Civilization

Typically Offered: Fall, Spring

Credits: 3 OC, HS, OL

The western world from antiquity to the fifteenth century; the emergence of civilization in the Nile and Tigris-Euphrates valleys; the political, social, economic, and intellectual contributions of Greece, Rome, and medieval Europe.

CORE 42: MOTR WCIV 101; Western Civilization I

HIS 210 Early Modern Civilization

Typically Offered: Fall, Spring

Credits: 3 OC, HS, OL

The western world from 1500 to 1815; national states, the geographical revolution, the founding of European overseas empires, the Reformation, the emergence of constitutional governments, the Scientific Revolution, and the American and French Revolutions.

CORE 42: MOTR WCIV 102; Western Civilization II

LIBERAL ARTS & SCIENCES

HIS 230 Modern Europe: 1789 to the Present

Typically Offered: Fall, Spring

Credits: 3 OC, HS, OL

The French Revolution and Napoleonic periods; reaction, nationalism, and revolution; rise of socialism; imperialism; World War I; the Russian Revolutions and Soviet communism; the rise of fascism; Hitler, Stalin, and World War II; the Holocaust; the postwar bi-polar world order; the bloc system.

CORE 42: MOTR WCIV 102; Western Civilization II

Humanities

HUM 203 Humanities: Ancient and Medieval

Typically Offered: Fall, Spring

Credits: 3 OC, OL

The social and intellectual history of humanity as reflected by literature, art, music, drama and discourse from the classical period to the Renaissance.

CORE 42: MOTR WCIV 101; Western Civilization I

HUM 204 Humanities: Middle Ages to the French Revolution

Typically Offered: Fall, Spring

Credits: 3 OC, OL

The social and intellectual history of humanity as reflected by literature, art, music, drama and discourse from the Middle Ages to the French Revolution.

CORE 42: WCIV 102; Western Civilization II

HUM 205 Humanities: American Revolution to the Present

Typically Offered: Fall, Spring

Credits: 3 OC, OL

The social and intellectual history of humanity as reflected by literature, art, music, drama and discourse from the American Revolution to the present.

CORE 42: WCIV 102; Western Civilization II

Journalism

JOU 104 Introduction to Digital Photography

Typically Offered: Fall

Credits: 3 OC, OL

This course introduces the student to composing, shooting and editing photographs. Students will learn basic manipulation of images using Adobe Photoshop and Lightroom, including preparation of images for both print and online uses. Students should have a digital camera with the ability to control the exposure, shutter speed and ISO.

LIBERAL ARTS & SCIENCES

JOU 202 Reporting for the Media

Typically Offered: Fall

Credits: 3

OC, OL

Introduction to writing for print, broadcast and web media. Students will gain hands-on training in writing leads and short-and medium-length articles and learn how these articles are packaged with other media elements in newspapers and convergent media websites. Prerequisite(s): ENG 104 and ENG 108.

JOU 224 Web Content and Design

Typically Offered: Fall

Credits: 3

OC

Students will learn the elements of effective writing for screen-based textual content in internet and intranet environments, using HTML and appropriate software to create both personal and professional Web sites to gain valuable hands-on experience. Introduces overview of content provider issues, including usability, intellectual property, security, access, database content language, writing and design. Same as ETC 224. Prerequisite(s): ENG 104.

Mathematics

MAT 110 Contemporary Problem Solving

Typically Offered: Fall, Spring

Credits: 3

OC, OL

Mathematics for solving selected real-world problems using elementary graph theory, data analysis, techniques of decision making, and the mathematics of finance. Same as MAT 110E. Prerequisite(s): ACT math subscore of at least 22 or a sufficient score on the math placement exam or departmental approval.

CORE 42; MOTR MATH 120; Mathematical Reasoning and Modeling

MAT 111 Introductory Statistics

Typically Offered: Fall, Spring

Credits: 3

OC, OL, HS

A general introduction to statistics for students whose academic interests involve the analysis and interpretation of data. Emphasis is placed on the development of statistical thinking and the use of technology. Topics include graphical and numerical methods for summarizing univariate and bivariate data, basic probability, discrete and continuous probability distributions, linear regression, characteristics of good study designs, confidence intervals and hypothesis testing. Same as MAT 111E. Prerequisite(s): ACT math subscore of at least 22 or a sufficient score on the math placement exam or departmental approval.

CORE 42; MOTR MATH 110; Statistical Reasoning

LIBERAL ARTS & SCIENCES

MAT 112 Finite Mathematics

Typically Offered: Fall, Spring

Credits: 3 OC, OL, HS, CLB

Linear and quadratic equations, graphs, and functions including exponential and logarithmic functions; mathematics of finance, annuities, sinking funds and mortgages; linear programming; counting methods, probability, expectation; descriptive statistics. Not open to the student with credit in MAT 165 or MAT 167. Prerequisite(s): ACT math subscore of at least 22 or a grade of C or higher in MAT 110E or a sufficient score on the math placement exam or departmental approval.

CORE 42: MOTR MATH 120; Mathematical Reasoning and Modeling

MAT 116 College Algebra

Typically Offered: Fall, Spring, Summer

Credits: 3 OC, OL, HS, CLB

Linear, quadratic, and miscellaneous equations and inequalities; relations and functions including polynomial, exponential, and logarithmic functions; graphing; systems of equations; and matrices. Not open to the student with credit in MAT 165 or MAT 167. Prerequisite(s): ACT math subscore of at least 22 or a grade of C or higher in MAT 110E or a sufficient score on the math placement exam or departmental approval.

CORE 42: MOTR MATH 130; Pre-Calculus Algebra

MAT 119 Trigonometry

Typically Offered: Fall, Spring

Credits: 2 OC, HS, OL, CLB

Trigonometric functions, trigonometric identities, trigonometric equations, solution of triangles, inverse trigonometric functions. Not open to the student with credit in MAT 165 or MAT 167. Prerequisite(s): ACT math score of 22 or higher or the equivalent.

MAT 147 Applied Calculus

Typically Offered: Fall, Spring

Credits: 5 OC

An applied course in techniques of differentiation and integration; applications primarily from the technological fields; analytic geometry, functions, differential and integral calculus. Prerequisite(s): ACT math score of 25 or higher or a grade of C or higher in MAT 116.

CORE 42: MOTR MATH OTHER; Mathematical Sciences

LIBERAL ARTS & SCIENCES

MAT 165 Calculus with Analytic Geometry I: Differentiation

Typically Offered: Fall

Credits: 3

OC

Includes the study of limits and continuity of real functions, the derivative of algebraic and trigonometric functions, and applications of the derivative. Not open to the student with credit in MAT 167. Prerequisite(s): ACT math score of 25 or higher, or a grade of C or higher in MAT 116 and a grade of C or higher or concurrent enrollment in MAT 119.

CORE 42: MOTR MATH OTHER; Mathematical Science

MAT 166 Calculus with Analytic Geometry I: Integration

Typically Offered: Spring

Credits: 3

OC

Includes the study of the integral, and the derivative and integral of exponential logarithmic, and other transcendental functions. Not open to the student with credit in MAT 167. Prerequisite(s): A grade of C or higher in MAT 165.

MAT 167 Calculus with Analytic Geometry I

Typically Offered: Fall, Spring

Credits: 5

OC

The first of three sequenced courses in calculus. Includes the study of limits and continuity of real functions, the derivative and its applications, the integral, and the integration and differentiation of trigonometric, exponential and logarithmic functions. Not open to the student with credit in MAT 166. Prerequisite(s): ACT math score of 25 or higher or a grade of C or higher in MAT 116 and MAT 119.

CORE 42: MOTR MATH OTHER; Mathematical Sciences

MAT 177 Calculus with Analytic Geometry II

Typically Offered: Fall, Spring

Credits: 5

OC

The second of three sequenced courses in calculus. Includes the study of applications of integration, integration techniques, L'Hopital's Rule, improper integrals, infinite series, conic sections, plane curves, parametric equations, and polar coordinates. Prerequisite(s): A grade of C or higher in MAT 166 or MAT 167.

MAT 201 Combinatorics

Typically Offered: Spring (odd-numbered years)

Credits: 3

OC

A study of the basic techniques for counting finite discrete structures subject to given constraints. Combinatorial problems from various areas of mathematics will be explored. Prerequisite(s): A grade of C or higher in MAT 147, MAT 166, or MAT 167.

LIBERAL ARTS & SCIENCES

MAT 206 Mathematical Transitions

Typically Offered: Fall

Credits: 3

OC

This course is designed to prepare students thoroughly for the transition into university level mathematics. Its main content is the development of formal proof, concise logical reasoning and the ability to write mathematically. Topics include but not limited to proof techniques, induction, number systems, function and sets, complex numbers, series and sequences, matrices. LAS Writing. Prerequisite(s): Credit or concurrent enrollment in MAT 177.

MAT 217 Mathematics and Technology

Typically Offered: Spring (odd-numbered years)

Credits: 3

OC

An introduction to numerical methods and symbolic computation using a computer algebra system. Iterative and recursive algorithms will be used to explore mathematical problem-solving techniques such as factoring and simplifying expressions, solving equations, differentiation and integration, and plotting curves and surfaces. LAS Computer Literacy. Prerequisite(s): Credit or concurrent enrollment in MAT 177.

MAT 287 Calculus with Analytic Geometry III

Typically Offered: Spring

Credits: 5

OC

The third of three sequenced courses in calculus. Includes the study of solid analytic geometry, vectors and vector calculus, partial differentiation, and multiple integrals. Prerequisite(s): A grade of C or higher in MAT 177.

Philosophy

PHL 210 Introduction to Philosophy

Typically Offered: Fall, Spring

Credits: 3

OC, OL

Survey of the origins and development of philosophical thought focusing on texts selected from the classical, medieval, modern and contemporary periods.

CORE 42; MOTR PHIL 100; Introduction to Philosophy

LIBERAL ARTS & SCIENCES

PHL 219 Reasoning and Argumentation

Typically Offered: Fall

Credits: 3

OC

Introduction to the skills necessary to construct and evaluate deductive and inductive arguments for use in a variety of disciplines, professions and everyday life. Topics include identifying valid forms of arguments, formal and informal methods of evaluation and the use of these skills when reading and writing. Prerequisite(s): ENG 104.

CORE 42: MOTR PHIL 101; Introduction to Logic

PHL 220 Symbolic Logic

Typically Offered: Departmental Discretion

Credits: 3

OC

Introduction to a symbolic language for representing the structure of valid arguments. Introduces formal rules for demonstrating the validity of arguments. Covers natural deduction for sentential and predicate calculus. Prerequisite(s): ACT math score of 20 or higher or the equivalent.

CORE 42: MOTR PHIL 101; Introduction to Logic

PHL 230 Ethics

Typically Offered: Fall, Spring

Credits: 3

OC, OL

An introduction to ethical theory focusing on the major traditions of Western philosophical ethics and their practical application to contemporary moral issues.

CORE 42: MOTR PHIL 102; Introduction to Ethics

PHL 257 Theory and Criticism of Visual Culture

Typically Offered: Fall,

Credits: 3

OC

A practical, experience-based multi-disciplinary introduction to contemporary and classic approaches to art theory and criticism. Same as ART 257. LAS Writing. Prerequisite(s): ART 100 or ART 205 or CIN 100 or ENG 210 or ENG 220 or HUM 203 or HUM 204 or HUM 205 or MUS 101 or THR 113.

LIBERAL ARTS & SCIENCES

Physics

PHY 101 Physics for the Liberal Arts

Typically Offered: Fall

Credits: 4 OC, OL

A comprehensive, descriptive study of the scientific principles of the physical world, including the history of science, motion, energy, cosmology, geophysics, etc. Designed to provide students without significant previous coursework in the physical sciences with a solid introduction to the terminology and concepts required for further study. Three hours lecture, two hours lab. Not open to the student with credit in PHY 107, PHY 110, or PHY 210.

CORE 42: MOTR PHYS 100L; Essentials in Physics with Lab

PHY 104 Introduction to Astronomy

Typically Offered: Fall, Spring

Credits: 4 OC, OL

Basic course in astronomy, mostly descriptive in nature; solar system, stellar astronomy, structure of galaxy and universe. Three hours lecture and two hours lab.

CORE 42: MOTR ASTR 100L; Astronomy with Lab

PHY 107 Introduction to Physics

Typically Offered: Spring

Credits: 4 OC, OL, HS

A comprehensive, quantitative study of the concepts and laws of physics. Designed for students majoring in fields other than the physical sciences, mathematics, or engineering. Topics include motion, gravity, electromagnetism, atomic and nuclear physics, optics, and relativity. Three hours of lecture, two hours lab. Not open to the student with credit in PHY 110 or PHY 210. Prerequisite(s): ACT math score of 20 or higher or the equivalent.

CORE 42: MOTR PHYS 110L; Essentials in Physical Sciences with Lab

PHY 110 College Physics I

Typically Offered: Fall, Spring

Credits: 4 OC, OL

Classical treatment of mechanics, energy, waves, and heat. Three hours lecture, three hours lab. Not open to students with credit in PHY 210. Prerequisite(s): MAT 116.

CORE 42: MOTR PHYS 150L; Physics I with Lab

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PHY 111 College Physics II

Typically Offered: Spring

Credits: 4

OC

Electricity, magnetism, optics, relativity, atomic physics and nuclear physics. Three hours lecture, three hours lab. Not open to students with credit in PHY 211. Prerequisite(s): PHY 110 or PHY 210.

PHY 210 University Physics I

Typically Offered: Fall

Credits: 5

OC

This course is a comprehensive study of mechanics, relativity, oscillations, waves, and thermodynamics involving simulations, applications, and experimentation. Course assignments require the student to have a thorough knowledge of college algebra, trigonometry, and calculus. Three hours lecture, two hours computer aided instruction lab, two hours experimentation lab. Prerequisite(s): MAT 166 or MAT 167.

CORE 42: MOTR PHYS 200L; Advanced Physics I with Lab

PHY 211 University Physics II

Typically Offered: Spring

Credits: 5

OC

This course is a comprehensive study of electricity, magnetism, optics, and introductory quantum physics involving simulations, applications, and experimentation. Course assignments require the student to have a thorough knowledge of college algebra, trigonometry, and calculus. Three hours lecture, two hours computer aided instruction laboratory, two hours experimentation laboratory. Prerequisite(s): PHY 210 and MAT 177. MAT 287 recommended.

Political Science

PSC 100 Current Issues in Politics

Typically Offered: Fall

Credits: 3

OC

The course will explore current issues in a broad context, with an emphasis on actors, institutions/organizations, and processes that shape them, and consider the context of each issue, along with the connections between and across many of these issues. Possible policy solutions will be explored, along with a consideration of the role that government and politics have in shaping and addressing the challenges of these issues.

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PSC 101 American National Government

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL

The American constitutional system, including Congress, the presidency, and the courts; and public issues.

CORE 42: MOTR POSC 101; American Government

PSC 110 American State and Local Government

Typically Offered: Fall

Credits: 3

OC, OL

Colonial and revolutionary origins of state government; state constitutions; referendum, initiative, and recall procedures; state legislatures; governors; state courts; county and municipal governments. Prerequisite(s):PSC 101.

PSC 111 Understanding the Missouri Constitution

Typically Offered: Fall, Spring

Credits: 1

OC, OL

This course provides students with an overview of the Missouri Constitution. Includes a discussion of federalism, the historical development, key constitutional structures and the Missouri Bill of Rights. The course is open to transfer students needing to complete the state mandated graduation requirement for knowledge of the Missouri Constitution.

PSC 200 International Politics

Typically Offered: Spring

Credits: 3

OC

The nature of politics at the international level; the national state system and state capabilities; foreign policy objectives, formulation, and execution; international organizations and alignments; contemporary world tensions. LAS International/Intercultural. Prerequisite(s): PSC 101.

CORE 42: MOTR POSC 201; International Relations

PSC 210 Comparative Political Systems

Typically Offered: Fall

Credits: 3

OC

Structural-functional analysis of major European political systems; comparison and contrast among such systems and with others of contemporary significance. Prerequisite(s): PSC 101.

CORE 42: MOTR POSC 202; Introduction to Comparative Politics

LIBERAL ARTS & SCIENCES

PSC 280 Scope and Methods

Typically Offered: Spring

Credits: 3

OC

The way political scientists work; the scientific basis for the discipline of Government; the history, approaches, and major sub-fields of Government and the quantitative and qualitative research methods used to analyze politics.

Psychology

PSY 101 General Psychology

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL

General information about psychology in everyday life, designed to correct misconceptions and to give the student a better understanding of self and others.

CORE 42; MOTR PSYC 100; General Psychology

PSY 200 Intermediate Psychology

Typically Offered: Fall, Spring

Credits: 3

OC, OL

Introduction to scientific psychology with emphasis on methodology and critical thinking about psychological ideas. Prerequisite(s): PSY 101 with a grade of C or higher, cumulative GPA of 2.0 or higher, and credit or concurrent enrollment in ENG 104 or ENG 112.

PSY 220 Health Psychology/Stress Management

Typically Offered: Spring

Credits: 3

OC

The psychological and social factors that influence health and disease. Attention is also focused on stress management, the health care system, and the evaluation of health-related research. Prerequisite(s): PSY 101.

PSY 222 Psychology of Gender

Typically Offered: Spring

Credits: 3

OC

The similarities and differences between the female and male gender in the following psychological areas: role acceptance, gender identity, sexuality, parenthood, achievement and ability, personality, adjustment and mental health, and relationships. LAS International/Intercultural. Prerequisite(s): PSY 101 with a grade of C or higher, cumulative GPA of 2.0 or higher, and credit or concurrent enrollment in ENG 104 or ENG 112.

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PSY 230 Psychology of Communication

Typically Offered: Fall

Credits: 3

OC

The elements of interpersonal communication; emphasizes techniques of communicating thoughts and ideas, listening techniques, understanding meaning; designed to improve the students interpersonal relationships. LAS International/Intercultural. Prerequisite(s): PSY 101 with a grade of C or higher, cumulative GPA of 2.0 or higher, and credit or concurrent enrollment in ENG 104 or ENG 112.

Religion

REL 250 Religions of East Asia and Oceania

Typically Offered: Spring (even-numbered years)

Credits: 3

OC

Survey of major and minor religions with relevant historical and cultural elements, focusing primarily on religious traditions with origins in East Asia and Oceania.

CORE 42; MOTR RELG 100; World Religion

REL 251 Religions of the West

Typically Offered: Fall (even-numbered years)

Credits: 3

OC

Survey of major and minor religions with relevant historical and cultural elements, focusing primarily on religious traditions with origins in West Asia, Europe, and the Americas.

CORE 42; MOTR RELG 100; World Religion

REL 252 Religions of South Asia and Africa

Typically Offered: Fall (odd-numbered years)

Credits: 3

OC

Survey of major and minor religions with relevant historical and cultural elements, focusing primarily on religious traditions with origins in South Asia and Africa.

CORE 42; MOTR RELG 100; World Religion

LIBERAL ARTS & SCIENCES

Sociology

SOC 110 Introduction to Sociology

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL

An introduction to the discipline of sociology; basic sociological concepts and theories; a survey of the major topics such as culture, society, social interaction, groups, crime, race/ethnicity, class, gender, the family, education, religion, medicine, economy, politics. Cross-cultural comparisons.

CORE 42: MOTR SOCI 101; General Sociology

SOC 120 General Anthropology

Typically Offered: Fall

Credits: 3

OC, OL

The bio-cultural evolution of the human species, with emphasis on culture as adaptation for survival; comparison of human non-literate societies, stressing cultural variability, cultural relativity, and similarities between cultures.

CORE 42: MOTR ANTH 101; General Anthropology

SOC 200 Introduction to Archaeology

Typically Offered: Fall, Spring

Credits: 3

OC, OL

The language, methodology, theoretical frameworks and history of the field of archaeology, with special emphasis on excavations and their contribution to knowledge of past civilization.

SOC 230 Social Problems

Typically Offered: Fall

Credits: 3

OC, OL

An analysis of contemporary American social problems, such as poverty, social inequality, crime and law enforcement, health and health care, population and the environment, problems in the family, education, politics and the economy. Global comparisons. Prerequisite(s): SOC 110.

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Spanish

SPA 100 Elementary Spanish I

Typically Offered: Fall

Credits: 3 OC, HS, OL, CLB

Beginning study of Spanish language and culture, including speaking, listening, reading and writing. Focus on topics of personal interest and activities, using primarily the present tense. Students whose high school transcripts show three or more years of Spanish (with a grade of C or higher, and within three years of the semester in question) should attempt the placement exam because they will receive audit credit only should they enroll in this course.

CORE 42; MOTR LANG 103; Spanish I

SPA 101 Elementary Spanish II

Typically Offered: Spring

Credits: 3 OC, HS, OL, CLB

Continued study of Spanish language and culture, including speaking, listening, reading and writing. Focus on topics of personal interest and activities.

Students must earn a minimum grade of C in order to continue in sequenced languages courses. Prerequisite(s): A grade of C or higher in SPA 100.

CORE 42; MOTR LANG 104; Spanish II

SPA 200 Intermediate Spanish I

Typically Offered: Fall

Credits: 3 OC, HS, CLB

Through classroom interaction, students develop oral and written skills needed for practical and daily-life situations; study linguistic structures and functions needed to ask questions, compare, contrast, and describe; develop reading skills and expand vocabulary; and increase cultural awareness of the Spanish-speaking world. Students must earn a minimum grade of C in order to continue in sequenced languages courses. Prerequisite(s): A grade of C or higher in SPA 101.

SPA 201 Intermediate Spanish II

Typically Offered: Spring

Credits: 3 OC, HS

Through classroom interaction, students further develop oral and written skills needed for practical and daily-life situations; study in greater depth linguistic structures and functions needed to ask questions, narrate in three tenses, compare and contrast, describe; build reading skills and expand vocabulary; and increase cultural awareness of the Spanish-speaking world. Students must earn a minimum grade of C in order to continue in sequenced languages courses. Prerequisite(s): A grade of C or higher in SPA 200 or departmental approval.

PROFESSIONAL STUDIES

Allied Health

ALH 106 Medical Terminology

Typically Offered: Fall, Spring, Summer **Credits: 2** **OC, OL, HS, CTC**

Medical terms with reference to human anatomy and disease processes for the paramedical professions.

Construction Engineering Technology

CET 105 Construction Materials

Typically Offered: Fall **Credits: 3** **OC, HS, CTC**

Introductory study of materials used in the construction industry. Materials are studied with regard to properties of their substances and utilization in construction.

CET 250 Intro to Statics, Strength of Materials and Structures

Typically Offered: Spring **Credits: 4** **OC, CTC**

Studies fundamentals of statics and mechanics of materials as they apply to construction processes such as statics equilibrium, axial, torsional, bending, and stress and strain analysis. Introduction to various methods used in analysis of structures such as beams, trusses and frames will be included. Three hours lecture, three hours lab. Prerequisite(s): MAT 116 and MAT 119.

CET 252 Advanced Surveying

Typically Offered: Spring **Credits: 3** **OC, CTC**

Intermediate and advanced surveying techniques and procedures with applications to engineering and construction problems; includes mapping, hydrography, and photogrammetry; promotes in-the-field application of techniques. Prerequisite(s): EGT 202 and credit or concurrent enrollment in EGT 205.

CET 254 Construction Methods and Equipment

Typically Offered: Spring **Credits: 4** **OC, CTC**

Introduction to the basic knowledge and skills of methods of building construction including foundation, structural framing, floor, roof, and wall systems; to the acquisition, selection, and use of construction equipment; and to the reading of construction blueprint drawings and specifications. Three hours lecture, three hours lab. Prerequisite(s): CET 105.

PROFESSIONAL STUDIES

CET 255 Legal Aspects of Boundary Surveying

Typically Offered: Fall

Credits: 3

OC, CTC

Includes preparation of plats and writing of property descriptions referenced to Public Land Surveys of Subdivision of Townships and Sections. Discusses surveying and land right terminology as well as resurveying, retracing, restoration, monumentation and dedication. Also studies selected case law. Computer programs and field trips will be utilized. Prerequisite(s): Credit or concurrent enrollment in EGT 202.

CET 256 Bituminous, Concrete and Soils

Typically Offered: Spring

Credits: 3

OC, CTC

Studies the properties and engineering applications of prime materials used in structural and roadway construction, including classification, basic quality control, and construction practices used with respect to asphalt, concrete, and soils. Two hours lecture, three hours lab. Prerequisite(s): CET 105.

CET 260 Mechanics of Materials

Typically Offered: Spring

Credits: 4

OC, CTC

Axial, torsional, bending, and combined stress and strain analysis; mechanical properties and applications for static, fatigue, creep, and impact conditions; emphasizes beam stresses and deflections, columns, and riveted and welded connections. Three hours lecture, three hours lab. Prerequisite(s): EGT 260.

CET 265 Subdivision Planning and Layout

Typically Offered: Spring

Credits: 3

OC, CTC

Platting of boundaries, topographic layout, planning and layout for streets, sewers and water lines. Building site surveys. Prerequisite(s): EGT 202.

CET 270 Electrical Installations

Typically Offered: Spring

Credits: 3

OC, CTC

Studies of DC circuits and electrical components, including conductors, insulators, resistors, inductors, capacitors, switches, voltage and current sources. Fundamentals of AC circuits, motors and generators, three-phase industrial power, power generation, distribution, transmission, and transformers. Includes laboratory sessions to demonstrate and reinforce understanding of these topics. Two hours lecture, three hours lab. Prerequisite(s): CET 105 or EGT 220.

PROFESSIONAL STUDIES

Criminal Justice

LAW 100 Introduction to Criminal Justice

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL

A survey of the philosophical and historical background of the criminal justice system as it relates to the individual; reviews the principles underlying social organization control devices with an emphasis upon such legal systems as the criminal courts, corrections, and law enforcement; designed to provide general knowledge about the concept and causes of crime, the varying goals and objectives of the criminal justice system, and an assessment of specific role performance of various members of the criminal justice system including major aspects of civil process.

LAW 110 Introduction to Juvenile Justice

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL

Studies the delinquent juvenile as an individual and the impact on society; investigates delinquency, causation, the role of the law enforcement officer, the juvenile officer, the juvenile court, and juvenile corrections.

LAW 130 Modern Police Procedures

Typically Offered: Fall, Spring

Credits: 3

OC, OL

Examines issues critical to the policing of today's society. Although the primary focus will be on problems faced by street officers, the philosophical concepts will be of concern to anyone in the criminal justice system.

LAW 140 Traffic Control and Accident Investigation

Typically Offered: Fall, Spring

Credits: 3

OC

Introduction to traffic control and accident investigation in modern cities; reviews principles of organizing and administering police units for traffic enforcement, accident prevention, and safety education; presents basic techniques of accident investigation, analysis, and interpretation.

LAW 190 Criminal Investigation

Typically Offered: Fall, Spring

Credits: 3

OC, OL

A course on modern investigative methodology. All aspects of the criminal investigative function of the police are fully covered from the preliminary investigation to the preparation of the case for review by the prosecutor. Particular attention is given to the importance of information, interrogation, and instrumentation in the solution and preparation of criminal cases for trial. Prerequisite(s): LAT 101 or LAW 100.

PROFESSIONAL STUDIES

LAW 200 Introduction to Corrections

Typically Offered: Fall

Credits: 3

OC, OL

The origins and theories of punishment and the prison system; introduces principles and programs of institutional correction and special problems in administration; reviews modern recommendations for improvement of the system. Prerequisite(s): LAW 100.

LAW 260 Criminal Law

Typically Offered: Fall, Spring

Credits: 3

OC, OL

Explores the origin, development, and classification of substantive criminal law; reviews the rules of evidence of particular importance at the operational level of law enforcement and criminal procedures in arrest, force, search, and seizure. Prerequisite(s): Completion of 9 credit hours in criminal justice or legal studies.

LAW 270 Probation and Parole

Typically Offered: Spring

Credits: 3

OC, OL

Examines probation, parole and alternatives to confinement and their effectiveness in curbing future criminal behavior. Prerequisite(s): LAW 100.

LAW 275 Police Photography

Typically Offered: Fall, Spring

Credits: 3

OC

To introduce students to the principles and practices of police photography. They will learn the legal issues for the development of evidence and the way photography is used in the field of criminal justice. Prerequisite(s): Completion of 6 credit hours in criminal justice or legal studies or permission of the instructor.

LAW 280 Criminalistics

Typically Offered: Fall, Spring

Credits: 3

OC

Introductory survey of modern methodology for police laboratories and introduces the means of achieving high degrees of proficiency in the field of scientific criminal inquiries with the use of laboratory equipment. This will allow the student the opportunity to have actual experience in utilizing the techniques performed in the forensic laboratory. Prerequisite(s): LAW 190.

PROFESSIONAL STUDIES

Education

EDU 202 Introduction to Education

Typically Offered: Fall, Spring

Credits: 3

OC, OL, HS, CTC

Basic introduction to professional education; an on-campus exploratory course to aid participants in deciding whether or not to become teachers. The course also provides the basic information and attitude development necessary for successful teaching. A focused introduction will be provided in the appropriate instruction of English Language Learners. Students in this course are required to take the Missouri Educator Profile (MEP). This course must be taken concurrently with EDU 203. Prerequisite(s): A grade of C or higher in either ENG 104 and ENG 108, or ENG 112.

EDU 203 Participation in Teaching I

Typically Offered: Fall, Spring

Credits: 1

OC, HS, CTC

Laboratory course taken concurrently with EDU 202. During this off-campus experience, the participant serves as a teacher assistant. This exploratory course provides concrete exposure to teaching, students, and the school. Graded pass/fail. To be taken concurrently with EDU 202.

EDU 225 Educational Psychology

Typically Offered: Fall, Spring, Summer

Credits: 3

OC, OL, CTC

Principles of general psychology applied to the total educational process. Special emphasis is given to learning theories, student motivation, and individual differences. The course also includes a strong emphasis on assessment, student data, and data-based decision-making and cultural diversity. Prerequisite(s): Credit or concurrent enrollment in EDU 202 and EDU 203.

Electronics Engineering Technology

EET 100 Electrical Circuits I

Typically Offered: Fall, Spring

Credits: 3

OC, HS, CTC

Studies of DC circuits and electrical components, including conductors, insulators, resistors, inductors, capacitors, switches, voltage and current sources. Fundamentals of AC circuits, motors and generators, three-phase industrial power, power generation, distribution, transmission, and transformers. Includes laboratory sessions to demonstrate and reinforce understanding of these topics. Two hours lecture, three hours lab.

PROFESSIONAL STUDIES

EET 200 Electrical Circuits II

Typically Offered: Spring

Credits: 4

OC, HS, CTC

Analysis of series and parallel DC networks by various methods including mesh and nodal analyses, network theorems; Thevenin's, Norton's and Superposition analyses of AC series and parallel networks (RL, RC & RLC circuits), j operators, phasors, reactances, phase relationships, power, network theorems, sinusoidal AC voltages, currents, impedances and admittances (RL, RC & RLC), resonance, frequency response, polyphase systems, transformers and circuit analysis applications using PSpice computer simulation program. Laboratory exercises using AC sources, dual-trace oscilloscope, frequency generator, spectrum analyzer, and circuit prototyping reinforce the lecture concepts. Three hours lecture, three hours lab. Prerequisite(s): EET 100 and credit or concurrent enrollment in MAT 119.

EET 202 Digital Logic

Typically Offered: Spring

Credits: 4

OC, HS, CTC

Studies of number systems, logic gates, combinational logic using Small scale (SSI) and Medium scale (MSI) integrated circuits such as TTL, CMOS and ECL, Boolean algebra, mapping, flip-flops, counters, timers, adders, comparators, decoders, encoders, multiplexers, demultiplexers, arithmetic logic units (ALU's), programmable logic devices (PLD's) and input-output devices. Three hours lecture, three hours lab. Prerequisite(s): EET 100.

EET 206 Introduction to Microcomputers

Typically Offered: Fall

Credits: 4

OC, HS, CTC

A study of microcomputer and microprocessor architectures, ALU's, memory devices, interfacing, communications, and software programming applications using assembly language and high-level programming language such as C/C++. Three hours lecture, three hours lab. Prerequisite(s): EGT 102 or CSC 184 and EET 202.

EET 212 Introduction to Semiconductor Devices

Typically Offered: Fall

Credits: 4

OC, HS, OL, CTC

Studies of basic semiconductor theory, principles, characteristic curves and applications of semiconductor devices such as various types of diodes, BJT, FET transistors and biasing, and thyristors. Circuit applications including power supply rectification and filtering, voltage regulation, clippers, clampers and amplifiers, circuit modeling and analysis using electronic circuit design and analysis software such as Electronics Work Bench and PSpice. Three hours lecture, three hours lab. Prerequisite(s): Credit or concurrent enrollment in both EET 200 and CHE 101.

PROFESSIONAL STUDIES

Engineering Technology

EGT 102 Programming for Engineering Technology

Typically Offered: Fall, Spring

Credits: 3

OC, HS, CTC

Fundamental concepts about computers and approaches to computer programming including top-down design, selection control structures (if else, switch statements), repetition control structures (while, for, and do while loops), simple data types, arrays, strings, etc. Study of selected computer programming language.

EGT 103 Programming for Engineering Technology Fundamentals

Typically Offered: Fall, Spring

Credits: 1

OC, HS, CTC

Introduction to electronics engineering technology concepts, OSHA safety, ethics, and career potentials. Study of teamwork, diversity and globalization, quality, timeliness, continuous improvement and lifelong learning.

EGT 105 Introduction to Architecture

Typically Offered: Fall, Spring

Credits: 3

OC, HS, CTC

This course introduces to the student and understanding and appreciation of architecture and human built environment through a broad examination of cultural and aesthetic paradigms. The student will be informed of the historic legacy and value of architecture; how it impacts society today and daily lives. Three hours lecture.

EGT 110 ET Fundamentals and Critical Thinking

Typically Offered: Fall

Credits: 3

OC, HS, CTC

Introduction to engineering technology concepts, ethics, career potentials, and critical thinking. Study of teamwork, diversity and globalization, quality, timeliness, continuous improvement and lifelong learning, methodology of critical thinking and required mathematics and physics knowledge. Three hours lecture..

EGT 202 Surveying I

Typically Offered: Fall

Credits: 3

OC, HS, CTC

Introduction to the basic principles of plane surveying with applications to engineering and construction problems; uses laboratory periods for in-the-field applications of introductory surveying techniques. Relevant computer software will be used. Two hours lecture, three hours lab. Prerequisite(s): Credit or concurrent enrollment in both MAT 116 and MAT 119.

PROFESSIONAL STUDIES

EGT 205 Computer-Aided Drafting I

Typically Offered: Fall, Spring

Credits: 3

OC, OL, HS, CTC

Techniques in drafting with computer applications. Students will use a CAD software to produce mechanical, electrical and/or architectural drawings and will explore other software with their applications. The emphasis is on orthographic projections, sections, auxiliary views, dimensioning, component libraries and the applications of drafting using descriptive geometry. Two hours lecture, three hours lab..

EGT 215 Computer-Aided Drafting II

Typically Offered: Fall, Spring

Credits: 3

OC, HS, CTC

Advanced techniques in drafting with computer applications. Students expand their drafting skills by creating computer generated multi-detailed drawings using 3-D techniques. Architectural, structural, mechanical, and/or electrical applications will be discussed with emphasis in detailing, tolerances, and symbol libraries. Importing/exporting of files, customizing the CAD software, and productivity techniques will be used. Principles of drawing for residential structures using various construction materials and methods will be included. Two hours lecture, three hours lab. Prerequisite(s): EGT 205.

EGT 220 Engineering Materials

Typically Offered: Fall

Credits: 3

OC, HS, CTC

An introduction to the relationship between structure, processing and properties of materials; including atomic structure, strain hardening and annealing, solidification, ferrous and non-ferrous alloys, ceramic materials, polymers, composite materials, behavior of materials, and protection against deterioration of materials.

EGT 225 Computer-Aided Manufacturing

Typically Offered: Spring

Credits: 3

OC, HS, CTC

Application of computer assistance in manufacturing process; machine process control, inventory and material handling, robotics and automated assembly, product design and part grouping in relation to total manufacturing operation. Prerequisite(s): EGT 215.

EGT 260 Statics

Typically Offered: Fall

Credits: 3

OC, OL, HS, CTC

Fundamentals of statics; static equilibrium; topics of study include elements of statics in two and three dimensions; laws of equilibrium applied to structures and machines. Prerequisite(s): MAT 119.

PROFESSIONAL STUDIES

EGT 265 Engineering Statics

Typically Offered: Fall

Credits: 3

OC, HS, CTC

Composition and resolution of forces; equilibrium of force systems; application of the principles of statics to problems, including force analyses of simple structures. Centroids; moments of inertia. Prerequisite(s): MAT 167 and PHY 210.

Health Information Management

HIF 132 Pharmacology

Typically Offered: Spring

Credits: 2

OC

An introductory course with emphasis on classes of drugs and their primary use. Course work will include indications for the medications, dose and route of delivery of the most frequently prescribed medications in various health care settings. Prerequisite(s): A grade of C or higher in ALH 106 and BIO 250.

HIF 200 Health Care Delivery Systems

Typically Offered: Fall

Credits: 3

OC, OL

Study of the components of the health care delivery system; roles and functions of the hospital's organizational components: the governing board, the administration and the medical staff in various hospital departments. Investigation of the procedures used by the organizations which regulate and accredit hospitals, e.g., The Joint Commission.

Legal Assistant

LAT 101 Introduction to Law

Typically Offered: Fall, Spring

Credits: 3

OC, OL

Examines: the American legal system; the nature and functions of civil law; the function and structure of the state and federal court system and administrative agencies. The course also presents an overview of the trial of a civil lawsuit and a survey of the major areas of civil law.

PROFESSIONAL STUDIES

LAT 115 Paralegal Studies

Typically Offered: Fall, Spring

Credits: 3

OC, OL

Examines the role of the legal assistant in the practice of law. The course will identify paralegal functions, types of employment for paralegals, the structure of a law office and law office systems. The course will examine issues regarding paralegal education, licensing of paralegals, paralegal professional ethics, and the unauthorized practice of law. Prerequisite(s): Credit or concurrent enrollment in LAT 101.

LAT 220 Legal Research

Typically Offered: Fall

Credits: 3

OC

Students examine the components of a law library. Through research projects and assignments, students gain experience working with law legal reference material including statutes, cases, regulations and annotated summaries of law. Methods of legal writing and citation style are introduced. Prerequisite(s): Credit or concurrent enrollment in LAT 101..

LAT 225 Litigation

Typically Offered: Spring

Credits: 3

OC

Examines the procedures involved in a lawsuit. Subjects covered include: civil court procedures, types of lawsuits, pleadings, pretrial preparation, trial and post-trial procedures. The course will emphasize the role of the various people involved in this process. Prerequisite(s): LAT 220.

LAT 230 Real Property

Typically Offered: Spring

Credits: 3

OC

Presents the major legal concepts associated with the law of real property and real estate transactions. Emphasis on the historical common law concepts of property; present statutory structure; and common practices in the conveyance and ownership of real estate.

PROFESSIONAL STUDIES

LAT 250 Legal Computer Applications

Typically Offered: Fall, Spring

Credits: 3

OC, OL

Examination of legal applications of computer technology. Students will examine the use of electronic resources to access, acquire, create and provide information electronically. The course will use commercial and non-commercial sources of information, software, governmental/public domain material (statutes, regulations, cases). Students will learn to use personal computers for communication and to explore the Internet, Westlaw, and other electronic sources. Prerequisite(s): Prior computer knowledge or course work is recommended for students, including word processing techniques, the Internet, and e-mail.

Manufacturing Engineering Technology

MET 100 Electrical Circuits for Manufacturing

Typically Offered: Fall

Credits: 3

OC, HS, CTC

Studies fundamentals of electricity, solution of DC and AC circuits, motors and generators, three-phase industrial power, power generation, distribution, transmission, and transformers. Includes laboratory sessions to demonstrate and reinforce understanding of these topics. Two hours lecture, three hours lab.

MET 101 Electronic Instrumentation for Manufacturing

Typically Offered: Spring

Credits: 3

OC, HS, CTC

Studies electronic devices used in manufacturing and control equipment, such as diodes, transistors, SCR's, triacs, and integrated circuits. Also studies electronic circuits including power supplies, amplifiers, oscillators, digital electronics, basic principles of electronic communications, and electronic control circuits. Prerequisite(s): MET 100..

MET 111 Manufacturing Processes

Typically Offered: Spring

Credits: 2

OC, HS, CTC

Introduction to manufacturing engineering. OSHA safety regulations, GMP, quality control, SPC, Lean manufacturing and Six-sigma.

MET 131 Machine Workshop

Typically Offered: Fall

Credits: 3

OC, HS, CTC

Practice basic operations of the lathe, milling machine, and grinder. Learning the use of hand tools, metrology, metal sawing, drilling and tapping. Two hours lecture, three hours lab

PROFESSIONAL STUDIES

MET 132 Manufacturing Methods

Typically Offered: Spring

Credits: 3

OC, HS, CTC

Machine shop practices using hand tools, precision measuring equipment, and machine tools. Topics include metal casting and forming, machining of materials, and inspection. Operating traditional machine tools such as engine lathe, milling machines, drill presses and grinders. Two hours lecture, three hours lab.

MET 223 Machines and Tooling

Typically Offered: Fall

Credits: 3

OC, HS, CTC

Introduction to tooling for different machining processes, machining fixtures, jigs, and dies. Study and practice manufacturing and inspection procedures and the necessary equipment needed to manufacture specific products or components. Prerequisite(s): MET 131.

MET 231 PLC and Automation

Typically Offered: Spring

Credits: 3

OC, HS, CTC

Introduction to Programmable Logic Controllers and various components for automated manufacturing, including switches, relays, logic diagrams, inputs, and outputs. Two hours lecture, three hours lab. Prerequisite(s): MET 100.

MET 232 Automated Manufacturing

Typically Offered: Fall

Credits: 2

OC, HS, CTC

Study of the various components and operations in automated manufacturing systems including material handling, robotics, tooling, inspection, and quality control. Study of PLC programming and operation. One hour lecture, two hours lab. Prerequisite(s): MET 100..

MET 241 CNC Machining

Typically Offered: Spring

Credits: 3

OC, HS, CTC

Basic theory and laboratory work in basic programming, operation and maintenance of CNC machines. Two hours lecture, three hours lab. Prerequisite(s): MET 131.

MET 242 CNC Machining Processes

Typically Offered: Fall

Credits: 2

OC, HS, CTC

Study and practice of CNC machine operation including setup, programming, coordinate system, tool change, tool compensation, work-hold, and machine-computer interface. One hour lecture, two hours lab. Prerequisite(s): MET 132.

PROFESSIONAL STUDIES

MET 260 Mechanics of Materials

Typically Offered: Spring

Credits: 4

OC, HS, CTC

Axial, torsional, bending, and combined stress and strain analysis; mechanical properties and applications for static, fatigue, creep, and impact conditions; emphasizes beam stresses and deflections, columns, and riveted and welded connections. Three hours lecture, three hours lab. Prerequisite(s): EGT 260..

MET 285 Topics in Manufacturing

Typically Offered: Departmental Discretion

Credits: 3 OC, HS, CTC

Study of selected topics in manufacturing, including the evaluation and review of specific manufacturing processes and study in a given area that combines previous manufacturing engineering courses culminating in an integrated experience through an individual technical report and presentation. Prerequisite(s): MET 101, MET 111, and MET 132.

Nursing

UNV 101 Nursing

Typically Offered: Fall

Credits: 3

OC

This online course introduces students to the vocabulary and processes of critical thinking and their application to reading and writing, academic and personal skills for success in college and the practical application of those skills within a seminar setting. Students develop study skills, learn about campus resources and policies and explore nursing career options.

PROFESSIONAL STUDIES

Physical Education

PED 101 Fitness and Wellness

Typically Offered: Fall, Spring, Summer

Credits: 3 OC, HS, OL

Develops knowledge and skill in obtaining optimal health fitness through nutrition, stress management, cardiorespiratory endurance, recognition of risk factors for heart disease, and musculoskeletal development. Two hours lecture, two hours lab. Students must enroll in the lecture and one of the following seven PED 101 labs: 1) Aquatic Conditioning - Designed to instruct students in a variety of aquatic exercises to develop overall muscular strength, muscular endurance, flexibility, and cardiovascular fitness. Swimming skills not needed. 2) General Physical Conditioning - Designed to instruct students in a variety of physical exercise activities to develop overall muscular strength, muscular endurance, flexibility and cardiovascular fitness. 3) Fitness Swimming - Designed to instruct students in a swimming program to develop overall muscular strength and muscular endurance, flexibility and cardiovascular fitness. Must be at Intermediate swimming level and higher. 4) Jogging - Designed to instruct students in a jogging program to develop overall muscular strength, muscular endurance, flexibility and cardiovascular fitness. 5) Rhythmic Aerobics - Designed to instruct students in a variety of choreographed exercise routines to music to develop overall muscular strength, muscular endurance, flexibility and cardiovascular fitness. 6) Strength Training - Designed to instruct students in weight resistant activities to develop overall muscular strength, muscular endurance, and flexibility. 7) Walking for Fitness and Weight Control - Designed to instruct students in a walking exercise program to develop overall muscular strength, muscular endurance, flexibility and cardiovascular fitness.

PED 113 Beginning Soccer

Typically Offered: Spring

Credits: 1 OC

Introduction to the sport of soccer, including sport specific skills, strategies, rules. Meets General Studies Category 5, Line 2 Physical activity course. May be repeated up to 4 times for credit.

PED 181 Beginning Crossfit

Typically Offered: Fall, Spring

Credits: 1 OC

This course will teach students the basic Olympic lifts and gymnastic movements of Crossfit. It will teach lifetime fitness through general physical conditioning. May be repeated up to four times for credit. Meets General Studies Category 5, Line 2 physical activity course.

PROFESSIONAL STUDIES

PED 191 Foundations of Physical Education

Typically Offered: Fall, Spring

Credits: 3

OC

Historic and philosophic analysis of physical education emphasizing physical education as an academic discipline, professional opportunities, and associated fields. Recommended for freshmen.

Physical Science

PHS 230 Physical Science for Elementary Teachers

Typically Offered: Fall

Credits: 3

OC

Basic concepts of the physics, chemistry, astronomy, meteorology, and geology emphasizing topics taught in grades K-6. Prerequisite(s): EDU 202 and EDU 203.

Physical Therapist Assistant

PTA 100 Introduction to Physical Therapy

Typically Offered: Fall

Credits: 1

OC, OL, HS, CTC

Introduction to physical therapy and to the role of the physical therapist assistant, including function of the PTA and of the health care team, history of medical care and physical therapy, legal and ethical standards, cultural sensitive care and communication.

Recreation Sport Management

RSM 220 Introduction to Recreation and Sport Management

Typically Offered: Fall, Spring

Credits: 3

OC

History and foundations of organized recreation including objectives, responsibilities, scope, and economic and social aspects; tours of specific recreation agencies. Two hours lecture, two hours lab.

PROFESSIONAL STUDIES

Social Work

SWK 250 Introduction to Social Work

Typically Offered: Fall, Spring

Credits: 4 OC, OL

Overview of professional social work practice including its history, philosophy, ethics, values, methods, and fields of practice. Forty hours of volunteer experience in an area human service agency required.

SWK 260 Introduction to Aging Studies

Typically Offered: Spring

Credits: 4 OC, OL

Overview of the physical, social, psychological, cultural, and economic aspects of aging, all from a social problems perspective; social policy and social work intervention issues pertaining to aging.

SWK 270 Selected Topics in Social Work

Typically Offered: Fall, Spring

Credits: 4 OC, OL

Study of a selected problem in social work practice, e.g., mental illness, chemical dependence, or child welfare. Course may be repeated for credit for each different topic.

Course Prerequisites and Alternate Qualifiers

Prerequisites:

MAT 112 Finite Mathematics – Math ACT subscore of 22

MAT 116 College Algebra – Math ACT subscore of 22

MAT 119 Trigonometry – Math ACT subscore of 22

CHE 111 General Chemistry – Math ACT subscore of 22

MAT 167 Calculus – Math ACT subscore of 25, or a grade of C or better in MAT116 and MAT119

ENG 104 College Writing and Rhetoric – English ACT score of 18 and Reading ACT score of 18

ENG 108 College Writing and Research – Grade of C or better in ENG 104

Alternate Qualifiers:

ACT Residual Exam Information

Along with the National ACT tests, Missouri Western also offers the ACT Residual Exam. Students may qualify for ECA MAT 112 Finite Mathematics, MAT 116 College Algebra, MAT 119 Trigonometry, CHE 111 General Chemistry or ENG 104 College Writing and Rhetoric.

- Scores from this test may only be used at Missouri Western.
- Residual tests are scored on campus, normally on the same day they are taken.
- The ACT Residual is usually offered during months when the national ACT is not offered. The exam is no more or less difficult than the national ACT exam. It offers the advantage of enhanced availability and quick score reporting.
- Students who require an ACT score for ECA classes may also take the ACT Residual.
- To learn more about taking the ACT Residual and the fee, contact the Testing Center at (816) 271-4100.

Math Placement Exam (MPE) Information

- An MPE score of 70 percent or above can be used as an alternate qualifier for MAT 112 Finite Mathematics, MAT 116 College Algebra, MAT 119 Trigonometry or CHE 111 General Chemistry.
- There is no fee for the MPE.
- Students may take the MPE repeatedly, but not more than one time per week.
- Students are encouraged to register well in advance of taking the exam. Upon obtaining a registration username and password, students may access a practice test, view instructional videos, complete electronic sample problems and worksheet problems for all of the 12 topics.
- ECA students must register for the MPE through the Missouri Western ECA website at missouriwestern.edu/eca/students-parents-info/.
- This is a computer-based, proctored exam. Exam times must be scheduled in advance. High schools may request that the Missouri Western proctor administer the exam at the high school site one time per semester; additional testing must be on the Missouri Western campus.
- For further information on the MPE, please contact Tricia Fuhr, exam proctor, at (816) 271-4410 or pfuhr@missouriwestern.edu.

Writing and Reading Placement Exams

The prerequisites for ECA ENG 104 College Writing and Rhetoric are ACT English and Reading scores of 18. Along with the national ACT and the ACT Residual exam, alternate qualifiers are the Writing and Reading placement exams. These exams are administered through the Missouri Western Department of English and Modern Languages. There are no fees for these exams.

Please visit the department's website at www.missouriwestern.edu/eml/placement-exit-exams/writing-placement-exam-2 for further information.



CHE 111



Sign up to receive the Smart Start ECA Newsletter

Visit www.missouriwestern.edu/eca/smart-start
to read and subscribe to the Smart Start Early College Academy
Newsletter. The newsletter is produced twice a year and
includes important information for ECA students as they
transition to college.

Student Services

Upon enrollment in the Early College Academy, a student is considered a Missouri Western student.

Students may obtain a student ID card, attend Missouri Western sporting and cultural events at the student rate, borrow materials from the Missouri Western library (materials may be borrowed online), and use the free tutoring services available at the Center for Academic Support.

Additionally, ECA students are held to the standards outlined in the Missouri Western ECA student handbook. The handbook can be accessed at missouriwestern.edu/eca/.

ECA Students receive advisement services from Missouri Western.

We have a common goal of helping students save time and money while completing their college degree. ECA advisors can help students create a fast track to completing their degree and starting their career.

The Early College Academy provides an academic advisor to all students in the academy, regardless of where they plan to attend college. Our trained advisors will assist students in developing a plan of study for their ECA coursework. Students can earn certificates of completion for 15, 30 or 42 hours of general studies coursework, or a career exploration certificate, consisting of a combination of general studies and pre-major coursework.

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– Melissa Swenson, Carbon High School, Price, Utah

General Education

The required general studies curriculum consists of a common core to ensure that all degree-seeking students will be provided the opportunity to acquire knowledge and skills to:

Think critically and reason analytically; write and speak clearly and effectively; function as an enlightened citizen of our democratic society; develop an appreciation of the cultural aspects of civilization; and appreciate the means for gaining and maintaining mental and physical health.

Category ONE: Basic Skills 12-14 cr hrs

Select one course from each of the following groups:
(Group B must have a total of 6 hrs.)

- A. 3/4/5 hrs MAT 110, 110E, 111, 111E, 112, 116, 147, 165 or 167
- B. 3hrs ENG 104 College Writing/Rhetoric AND
3hrs ENG 108 College Writing/Research
OR
6hrs ENG 112 Honors Comp/Rhetoric
- C. 3hrs COM 104 Oral Communication

Category TWO: Natural Sciences 8-10 cr hrs

Select one course with lab from two of the groups:

- A. 4hrs BIO 101 Principles of Biology
4hrs BIO 105 Principles of Organismal Biology
- B. 4hrs CHE 101 Introduction to Chemistry
5hrs CHE 104 Fundamentals of Chemistry
5hrs CHE 111 General Chemistry I
- C. 4hrs ESC 111 Physical Geology
- D. 4hrs PHY 101 Physics for the Liberal Arts
4hrs PHY 107 Introduction to Physics
4hrs PHY 110 College Physics I
5hrs PHY 210 University Physics I
- E. 4hrs PHY 104 Introduction to Astronomy
- F. 4hrs GEO 160 Physical Geography

Category THREE: Social Sciences 9 cr hrs

Select 9 hours with at least one course from each of the following groups:

- A. 3hrs ECO 101 Current Issues in the Economy
3hrs ECO 260 Principles of Macroeconomics
3hrs ECO 261 Principles of Microeconomics
3hrs GEO 100 World Geography
3hrs PSY 101 General Psychology
3hrs SOC 110 Introduction to Sociology
3hrs SOC 120 General Anthropology
- B. 3hrs HIS 140 American History to 1865
3hrs HIS 150 American History since 1865
3hrs PSC 101 American National Government

Category FOUR: Humanities 9 cr hrs

Select one course from three of the four groups:

- A. 3hrs HIS 200 Ancient & Medieval Civilization
3hrs HIS 210 Early Modern Civilization
3hrs HIS 230 Modern Europe 1789 to Present
3hrs HUM 203 Humanities: Ancient & Medieval
3hrs HUM 204 Humanities: Middle Ages to French Revolution
3hrs HUM 205 Humanities: American Revolution to Present
- B. 3hrs ENG 210 Approaches to Literature
3hrs ENG 220 Introduction to Reading Texts
3hrs PHL 210 Introduction to Philosophy
3hrs PHL 230 Ethics
3hrs PHL 231 Healthcare Ethics
3hrs PHL 232 Business Ethics
3hrs REL 250 Religions of East Asia and Oceania
3hrs REL 251 Religions of the West
3hrs REL 252 Religions of South Asia and Africa
- C. 3hrs ART 100 Introduction to Art
3hrs MUS 101 Perspectives in Music
3hrs THR 113 Introduction to Theatre
- D. Any 3-credit hour 100-level or higher foreign language course

Category FIVE: Physical Health 4 cr hrs

Select one course from each of the following:

- A. 3hrs PED 101 Fitness & Wellness
- B. 1-2hrs One approved physical activity course

**Total General Education Requirements
42-46 credit hours**



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Missouri Western is an equal opportunity institution. 4, 2019

Did you know?

Because Missouri Western offers online general education courses through the Early College Academy, a high school student **has the ability to complete college general education requirements while in high school.**

A student could complete their general studies requirements at the ECA tuition rate, which is \$95 per credit hour. This represents an enormous savings off the cost of a college education!

Missouri Western credits will transfer to virtually any institution.

A student could begin a college career with general education requirements already completed and earn a degree at an accelerated pace!