June 1, 2018
Deadline to register your high school for fall and year-long courses

December 1, 2018
Deadline to register your high school for spring courses

Courses will have limited availability after these deadlines have passed.
Why dual credit/dual enrollment?

- Tuition is $98/credit hour, less than half the cost of regular tuition at Missouri Western State University.
- General education requirements can be completed with dual credit/dual enrollment courses.
- There is no limit on the number of dual credit/dual enrollment courses that Missouri Western will accept from enrolling students.
- Missouri Western courses are widely transferable.
- Dual credit/dual enrollment courses enrich and extend the high school curriculum and help prepare students for the rigors of college classes.
- Each course provides multiple assessments throughout and awards college credit immediately upon completion of the class, unlike advanced placement.
- 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 a dual credit/dual enrollment student.
- Dual credit/dual enrollment students are considered Missouri Western students, making them eligible for a student ID card. The ID card allows students to access and check out materials from the library, 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!

Did you know?

Students may take most lower-level Missouri Western coursework and receive the $98 tuition rate as long as the high school agrees to transcript high school credit for the course.

This includes summer semester, online and on-campus courses!

Missouri Western is a member of NACEP.
**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 dual credit/dual enrollment courses.

As you can see, dual credit/dual enrollment coursework is now an option for many more students!

However, high schools are increasingly faced with the challenge of providing high school teachers who meet the new criteria required to teach dual credit:

**Instructor Qualifications**

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.

Institutions may, at their discretion, employ as dual credit instructors for career and technical programs an individual who has superior knowledge and tested experience in the discipline in which he or she is teaching.

Learn More: (816) 271-4109
missouriwestern.edu/dualcredit

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**Tuition & Fees**

Dual credit/dual enrollment tuition is $98 per credit hour. Textbooks and materials* are provided at no cost. A student taking 15 credit hours of dual credit/dual enrollment 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**

<table>
<thead>
<tr>
<th>MWSU Dual Credit</th>
<th>MWSU On Campus</th>
<th>Avg. of State Universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition/fees......</td>
<td>$490</td>
<td>$1,361.70</td>
</tr>
<tr>
<td>Textbook &amp; suppl.</td>
<td></td>
<td>$98.40</td>
</tr>
<tr>
<td>materials........</td>
<td>$0</td>
<td>$98.40</td>
</tr>
<tr>
<td>Total*.............</td>
<td>$490</td>
<td>$1,460.10</td>
</tr>
</tbody>
</table>

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

** Based on FY 2018 MDHE data, with full-time fees prorated to a 5 credit hour course; assumes same text and materials fees as Missouri Western.

A typical three-credit-hour dual credit/dual enrollment course costs $294 (3 credits at $98/credit).
Collaborative Programs

Our dual enrollment collaborative programs [CLB] combine the skills and experience of the high school teacher with the expertise of the university professor to deliver quality university coursework to your high school students.

- Collaborative courses do not require the high school teacher to have a master's degree with graduate hours in the discipline.
- The course is team-taught by your approved and trained high school teacher and the Missouri Western instructor.
- The high school teacher retains autonomy while teaching within the course parameters set by the university instructor.

Missouri Western offers the following collaborative dual enrollment courses:

- ENG 104 College Writing and Rhetoric (3 cr)
- ENG 108 College Writing and Research (3 cr) - Launching Spring 2019
- MAT 116 College Algebra (3 cr)
- MAT 112 Finite Math (3 cr)
- MAT 119 Trigonometry (3 cr)
- CHE 111 General Chemistry (5 cr)
- BIO 101 Principles of Biology (4 cr)
- SPA 100 Elementary Spanish I (3 cr) - Launching Fall 2018
- SPA 101 Elementary Spanish II (3 cr) - Launching Spring 2019

For further information on these collaborative courses, please contact Stacy Turner at turner@missouriwestern.edu or (816) 271-4109.
**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. Prerequisite(s): general studies math.

**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.

**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.

**ART 110 Beginning Drawing I**  
*Typically Offered: Fall, Spring*  
**Credits: 3**  
**OC**  
Elementary drawing with figure, still life, landscape and perspective in various media. Six studio hours.

**ART 120 Two-Dimensional Design**  
*Typically Offered: Fall, Spring*  
**Credits: 3**  
**OC**  
Design 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 firsthand 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.
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  
History of art in Western civilization: prehistoric times through the Middle Ages.

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 four times for credit. Prerequisite(s): ART 110, ART 120, ART 160 and credit or Dual 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.

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 up to four times for credit. Prerequisite(s): ART 110, ART 120 and credit or dual enrollment in ART 229.

ART 255  Renaissance Through Modern Art  
*Typically Offered: Spring*  
Credits: 3  
OC  
History of art in Western civilization: Renaissance through modern times. Prerequisite(s): ART 205.

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.
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 nonlinear 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 eight 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 eight hours of credit.

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 eight 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. Meets two days a week. Meets General Studies Category 5, Line 2: physical activity course. May be repeated for up to eight 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 eight hours of credit. Prerequisite(s): DAN 101 or instructor approval.

DAN 120  Dance Performance  
Typically Offered: Departmental Discretion  Credits: 1 OC
Directed student dance performance opportunity in order to focus on dance as a performing art. Dancers perform in front of an audience. The number of hours per week is determined by the choreographer/director on a project-to-project basis. Requires instructor approval. Meets General Studies Category 5, Line 2: physical activity course. May be repeated for up to four hours of credit.

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.
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 eight 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 eight hours of credit. Prerequisite(s): DAN 112 or instructor approval.

DAN 214 Dance History  
*Typically Offered: Spring (even-numbered years)*  
Credits: 3  
OC  
Examines theatrical forms of dance in historical and cultural contexts. Major topics in dance history are examined as they pertain to the development of dance as an art form in modern society. This course meets three hours a week.

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.

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 a week.

MUS 106 Basic Keyboard Skills I  
*Typically Offered: Departmental Discretion*  
Credits: 2  
OC  
Keyboard orientation; intervallic reading; I, V chord structures and harmonization. No piano background required.

MUS 108 Basic Keyboard Skills II  
*Typically Offered: Departmental Discretion*  
Credits: 2  
OC  
Primary chord structures and harmonization, simple accompaniment patterns, reading skills, scale structures. Prerequisite(s): MUS 106 or departmental approval.

MUS 109 Functional Voice Class  
*Typically Offered: Departmental Discretion*  
Credits: 1  
OC  
This course is designed to provide the instrumental music education major and the beginning nonmusic major with functional knowledge of the vocal process and vocal performance experience. Meets two days a week.

MUS 111 Functional Instrumental Techniques  
*Typically Offered: Departmental Discretion*  
Credits: 1  
OC  
This course is designed to acquaint the choral/vocal music education major with performance techniques of four families of instruments: woodwinds, brasses, strings, and percussion. The class will explore the methods of performance on the primary instruments of each family. Meets two hours a week.

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.

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 and 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 a week.

Questions? Call: (816) 271-4109  missouriwestern.edu/dualcredit
MUS 142 University Men's Chorus  
Typically Offered: Departmental Discretion  
Credits: 1  
A non-auditioned vocal ensemble open to all men that focuses on healthy development of the singing voice. Music performed includes selections from all stylistic genres. Number of concerts may vary by semester. Students are financially responsible for appropriate concert attire. Meets three hours a week.

MUS 143 University Women's Chorus  
Typically Offered: Departmental Discretion  
Credits: 1  
A non-auditioned vocal ensemble open to all women that focuses on healthy development of the singing voice. Music performed includes selections from all stylistic genres. Number of concerts may vary by semester. Students are financially responsible for appropriate concert attire. Meets three hours a week.

MUS 146 Concert Band  
Typically Offered: Spring  
Credits: 1  
Basic concert band literature with public performance; laboratory for conducting and arranging students; experience on secondary instruments. Meets three hours a week.

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.

THR 126 Stage Movement Workshop  
Typically Offered: Departmental Discretion  
Credits: 2  
OC  
Fundamentals of stage movement for performers and directors. Includes a basic overview of various body alignment techniques (i.e., Alexander Technique), character creation through movement using masks and clown work. Prerequisite(s): THR 113.

THR 130 Stage Combat Workshop  
Typically Offered: Departmental Discretion  
Credits: 1  
OC  
A study of weaponry styles, skills and methods as used in staging violence for stage and screen. In addition to classroom work and assignments, attendance at a professional stage combat workshop over a weekend is mandatory. Additional registration and accommodation fees for this workshop are required. Prerequisite(s): THR 113.

THR 140 Production Participation  
Typically Offered: Fall, Spring  
Credits: 1-3  
OC  
Supervised practical work for a departmental theatrical main stage production (includes work onstage, backstage and preproduction). May be repeated for a total of nine credit hours.

THR 218 Oral Interpretation  
Typically Offered: Departmental Discretion  
Credits: 3  
OC  
Oral reading and analysis of prose, poetry and drama. Same as COM 218. Prerequisite(s): COM 104.

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 224 Voice and Diction  
Typically Offered: Departmental Discretion  
Credits: 3  
OC  
Theories and techniques of using and improving the actor's instrument, the voice. Including articulation, resonance, working knowledge of dialects and a mastery of the International Phonetic Alphabet. Prerequisite(s): THR 113.

THR 225 Theatre Management  
Typically Offered: Departmental Discretion  
Credits: 3  
OC  
Fundamentals of theatre management: box office management, usher training and supervision, designing lobby displays, and various public relations and marketing techniques. Prerequisite(s): THR 113.
### SCHOOL OF FINE ARTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Type</th>
<th>Offered</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 228</td>
<td>Acting I</td>
<td>3</td>
<td>OC</td>
<td>Fall</td>
<td>Basic principles of acting theory. Studio work emphasizing warm-up techniques, improvisations, monologue and scene work. Two hours lecture, two hours lab.</td>
</tr>
<tr>
<td>THR 230</td>
<td>Improvisation Workshop</td>
<td>1</td>
<td>OC</td>
<td>Departmental Discretion</td>
<td>This class focuses on the techniques of comedic improvisation. Students learn how to initiate scenes, build upon their scene partners’ offers, and create scenes with a solid foundation through numerous exercises and practices. Prerequisite(s): THR 113 and THR 228.</td>
</tr>
<tr>
<td>THR 240</td>
<td>Audition Techniques Workshop</td>
<td>1</td>
<td>OC</td>
<td>Departmental Discretion</td>
<td>Focus of study on monologue training for professional auditioning and the development of advanced cold reading skills. Prerequisite(s): THR 113 and THR 228.</td>
</tr>
<tr>
<td>THR 275</td>
<td>Script Analysis</td>
<td>3</td>
<td>OC</td>
<td>Fall (even-numbered years)</td>
<td>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.</td>
</tr>
<tr>
<td>THR 276</td>
<td>Stage Properties</td>
<td>3</td>
<td>OC</td>
<td>Departmental Discretion</td>
<td>Practical training in carpentry and craft techniques related to the procurement, design, and construction of stage properties. Topics will include development of paperwork related to properties management, strategies for acquiring prop items, and a series of projects designed to give students practical experience building stage properties using a variety of construction techniques.</td>
</tr>
</tbody>
</table>

### LIBERAL ARTS & SCIENCES

### Applications of Computer Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Type</th>
<th>Offered</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 102</td>
<td>Introduction to Web Page Development</td>
<td>3</td>
<td>OC, HS</td>
<td>Fall, Spring</td>
<td>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.</td>
</tr>
<tr>
<td>ACT 202</td>
<td>Introduction to Web Graphics</td>
<td>3</td>
<td>OC, HS, OL</td>
<td>Fall</td>
<td>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.</td>
</tr>
<tr>
<td>ACT 211</td>
<td>Internet Scripting</td>
<td>3</td>
<td>OC</td>
<td>Fall</td>
<td>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.</td>
</tr>
</tbody>
</table>

### Biology

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 101</td>
<td>Principles of Biology</td>
<td>4</td>
<td>OC, OL, HS, CLB</td>
<td>Fall, Spring</td>
<td>Introductory course on the principles of living phenomena intended for students not majoring in biology. Meets General Studies Category 2, Line 1 requirement. Three hours lecture, two hours lab.</td>
</tr>
</tbody>
</table>
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 a week. 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.

BIO 106  Principles of Cell Biology  
Typically Offered: Fall, Spring  
Credits: 4  OC, OL  
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. 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.

BIO 116  Naturalist Training  
Typically Offered: Departmental Discretion  
Credits: 1  OC  
This course emphasizes the interpretation of major Missouri habitats, plants and animals. The history and philosophy of nature interpretation and its importance to conservation education is covered. The course is designed for students who wish to serve as official volunteers for the Department of Conservation during their college career and beyond. Course grades assigned on a pass/fail basis. Prerequisite(s): BIO 101 or BIO 105 recommended.

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 a 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.

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.

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.

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.

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 lab. 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 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 dual enrollment in MAT 167.

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**LIBERAL ARTS & SCIENCES**

**CHE 283  Introduction to Research Methods in Chemistry**  
Typically Offered: Fall, Spring, Summer  
Credits: 1-3  
Introduction to basic research in chemistry. Individual and team projects involving methods for solving chemistry-related research problems. May be repeated for credit. Prerequisite(s): High school chemistry, freshman or sophomore standing, and departmental approval.

**Chinese**

**CHI 100  Elementary Chinese I**  
Typically Offered: Fall, Spring  
Credits: 3  
Beginning study of Chinese language and culture, including speaking, listening, reading and writing. Focus on topics of personal interest and activities.

**CHI 101  Elementary Chinese II**  
Typically Offered: Fall, Spring  
Credits: 3  
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.

**CHI 200  Intermediate Chinese I**  
Typically Offered: Fall, Spring  
Credits: 3  
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  
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.

**Communication Studies**

**COM 104  Oral Communication**  
Typically Offered: Fall, Spring, Summer  
Credits: 3  
Principles of speech as applied in meaningful participation in society.

**COM 195  Applied Debate and Forensics**  
Typically Offered: Fall, Spring  
Credits: 3  
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  
Exploreation 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  
Theory and practice of constructing public presentations including: media use, organization, delivery, means of appeal, and analysis of audience and setting. Prerequisite(s): COM 104.

**COM 215  Introduction to Public Relations**  
Typically Offered: Spring  
Credits: 3  
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. 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. Prerequisite(s): 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, Spring  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.

**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 dual enrollment in both CSC 254 and MAT 166 or MAT 167.

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.

**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.

**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.

English

**ENG 100  Introduction to College Writing**
Typically Offered: Fall, Spring, Summer  Credits: 3  OC
Instruction in reading and writing; open to any student, but mandatory for those students who have not passed the Writing Placement Examination (WPE) and who have not achieved a score of 18 or higher on the ACT English subtest. Does not fulfill the English composition requirement for baccalaureate and associate degrees. (See class schedule for information about the WPE.)

**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.)
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.

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.

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.

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.

French  

FRE 100  Elementary French I  
Typically Offered: Fall  
Credits: 3  
OC, OL, 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.

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 language courses. Prerequisite(s): A grade of C or higher in FRE 100.

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 language 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 language courses. Prerequisite(s): grade of C or higher in FRE 200 or departmental approval.

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).

GEO 160  Physical Geography  
Typically Offered: Departmental Discretion  
Credits: 4  
OC  
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.

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GEO 210  Geography of the United States and Canada
Typically Offered: Departmental Discretion  Credits: 3  OC
A systematic and regional analysis of the contemporary physical, cultural and economic geography of the United States and Canada. Examination of environmental influences on people and the ways people change the environment as evidenced in agriculture, religion, industry and urban areas.

GEO 250  Introduction to GIS
Typically Offered: Departmental Discretion  Credits: 4  OC
Basic concepts of Geographic Information Systems and applications; raster and vector data models; exercises involving data collection, GPS usage, database management, editing databases and shapefiles, querying and analyzing data, and cartographic design using ArcGIS@ and Google@ software. Three hours lecture and two hours 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.

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 language courses. Prerequisite(s): A grade of C or higher in GER 100.

GER 151  German Culture and Civilization
Typically Offered: Departmental Discretion  Credits: 3  OC
An English-language course designed to reflect the importance of German culture and society to European and world intellectual development. Primary emphasis will be given to German artistic and social progress, and the extent to which it has influenced the direction of the German nation as well as other countries. Topics will vary by semester and shall represent significant intervals in German societal development (e.g. the origins of German culture and thought; German culture and civilization from the Reformation to unification; modern civilization and the German nation state(s)). May be repeated for a maximum of six credit hours (with departmental approval).

GER 182  German Literature in Translation
Typically Offered: Departmental Discretion  Credits: 3  OC
An English-language course designed to reflect the contributions of German writers to the European and world literary canon. Focus will be given to important German authors and their masterworks, relative to the literary genres within which these works are classified. May be repeated for credit (with departmental approval).

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 language 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 language 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.

**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.

**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.

**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.

**HIS 200  Ancient and Medieval Civilization**  
Typically Offered: Fall, Spring  
Credits: 3  
OC, HS, OL  
The Western world from antiquity to the 15th century; the emergence of civilization in the Nile and Tigris-Euphrates river valleys; the political, social, economic and intellectual contributions of Greece, Rome and medieval Europe.

**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.

**HIS 220  History of Missouri**  
Typically Offered: Departmental Discretion  
Credits: 3  
OC  
Missouri under French and Spanish rule; the American acquisition; the role of the state in the slavery crisis and in the settlement of the West; the state's contributions to politics, art, literature, education, industry and transportation.

**HIS 230  Modern Europe: 1789 to the Present**  
Typically Offered: Fall, Spring  
Credits: 3  
OC, HS  
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 bipolar world order; the bloc system.

**Humanities**

**HUM 203  Humanities: Ancient and Medieval**  
Typically Offered: Fall, Spring  
Credits: 3  
OC  
The social and intellectual history of humanity as reflected by literature, art, music, drama and discourse from the classical period to the Renaissance.

**HUM 204  Humanities: Middle Ages to the French Revolution**  
Typically Offered: Fall, Spring  
Credits: 3  
OC  
The social and intellectual history of humanity as reflected by literature, art, music, drama and discourse from the Middle Ages to the French Revolution.

**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.

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**Journalism**

**JOU 104  Introduction to Digital Photography**  
*Typically Offered: Fall*  
**Credits: 3**  
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.

**JOU 202  Reporting for the Media**  
*Typically Offered: Fall*  
**Credits: 3**  
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 204  Introduction to Broadcast Journalism**  
*Typically Offered: Fall*  
**Credits: 3**  
Introduction to the principles of creating video journalism packages for the web and broadcast. Students learn the basics of interviewing and shooting and editing video. Prerequisite(s): JOU 104 or departmental approval.

**JOU 224  Web Content and Design**  
*Typically Offered: Fall*  
**Credits: 3**  
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 websites 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 081  Foundations for University Mathematics I**  
*Typically Offered: Fall, Spring, Summer*  
**Credits: 3**  
A study of the fundamental arithmetic and algebraic concepts prerequisite to university-level mathematics. The specific topics studied are determined by assessment of the individual student's mathematical background.

**MAT 083  Foundations for University Mathematics III**  
*Typically Offered: Fall, Spring, Summer*  
**Credits: 3**  
A continuing study of the fundamental arithmetic and algebraic concepts prerequisite to university-level mathematics initiated in MAT 081. The specific topics studied are determined by assessment of the individual student's mathematical background. Prerequisite(s): A grade of C or better in MAT 081 or the equivalent.

**MAT 110  Contemporary Problem Solving**  
*Typically Offered: Fall, Spring, Summer*  
**Credits: 3**  
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.

**MAT 110E  Contemporary Problem Solving**  
*Typically Offered: Fall, Spring, Summer*  
**Credits: 4**  
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 110. Three hours lecture, two hours lab. Prerequisite(s): ACT math subscore of at least 18 or a sufficient score on the math placement exam or successful completion of MAT 083 or departmental approval.

**MAT 111  Introductory Statistics (pending approval)**  
*Typically Offered: Fall, Spring*  
**Credits: 3**  
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.

**MAT 112  Finite Mathematics**  
*Typically Offered: Fall, Spring*  
**Credits: 3**  
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 students 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.
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 students 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.

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 students with credit in MAT 165 or MAT 167. Prerequisite(s): ACT math score of 22 or higher or the equivalent.

MAT 127 Applied Mathematics for Engineering Technology
Typically Offered: Spring  Credits: 3  OC
An applied course in algebra, trigonometry, analytic geometry and statistics; applications primarily from the technological fields; also includes an introduction to basic concepts in calculus. Satisfies associate degree requirements in Engineering Technology only. Does not satisfy general studies mathematics requirement. Prerequisite(s): grade of C or better in both MAT 116 and MAT 119.

MAT 132 Elementary Statistics
Typically Offered: Fall, Spring, Summer  Credits: 3  OC, HS
A basic course for students in natural sciences, behavioral sciences and social sciences; tabulation of data, graphic representation, measures of central tendency and dispersion, probability, types of distributions, estimations, sampling, hypothesis testing, elementary aspects of correlation. Prerequisite(s): grade of C or higher in MAT 112 or MAT 116.

MAT 137 Calculus in Business and the Nonphysical Sciences
Typically Offered: Spring  Credits: 4  OC
Differential and integral calculus applications in business, life sciences and social science. Not open to students with credit in MAT 147, MAT 166, or MAT 167. Prerequisite(s): ACT math score of 25 or higher or a grade of C or higher in MAT 112, MAT 116, or equivalent.

MAT 147 Applied Calculus
Typically Offered: Fall  Credits: 5  OC
An applied course in techniques of differentiation and integration; applications primarily from the technological and 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.

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 students 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 dual enrollment in MAT 119.

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 students 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, Summer  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 students 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.

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'Hospital's Rule, improper integrals, infinite series, conic sections, plane curves, parametric equations and polar coordinates. Prerequisite(s): 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): grade of C or higher in MAT 137, MAT 147, MAT 166, or MAT 167.
Philosophy

PHL 210 Introduction to Philosophy
Typically Offered: Fall, Spring  Credits: 3  OC
Survey of the origins and development of philosophical thought focusing on texts selected from the classical, medieval, modern and contemporary periods.

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 108 or equivalent.

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.

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.

Physics

PHY 101 Physics for the Liberal Arts
Typically Offered: Fall  Credits: 4  OC
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 students with credit in PHY 107, PHY 110, or PHY 210.

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.

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 students with credit in PHY 110 or PHY 210. Prerequisite(s): ACT math score of 20 or higher or the equivalent.

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.

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.

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Political Science

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.

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  
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. Prerequisite(s): PSC 101.

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.

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.

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 dual enrollment in ENG 104 or ENG 112.

PSY 240 Life-span Developmental Psychology  
Typically Offered: Spring  
Credits: 3  OC, OL  
The cognitive, personality, emotional, social and physical changes that occur from conception through old age. This course is intended primarily for majors in fields which require a developmental psychology overview of the life span. Credit for this course is not applicable toward a psychology major. Prerequisite(s): PSY 101.

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.

SOC 120 General Anthropology  
Typically Offered: Fall  
Credits: 3  OC  
The bio-cultural evolution of the human species, with emphasis on culture as adaptation for survival; comparison of human nonliterate societies, stressing cultural variability, cultural relativity, and similarities between cultures.
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.

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.

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 language courses. Prerequisite(s): grade of C or higher in SPA 100.

SPA 110 Accelerated Beginning Spanish  
Typically Offered: Departmental Discretion  
Credits: 6  OC
Covers the material of SPA 100 and SPA 101 in one accelerated semester. Intended for students who know some Spanish (i.e. two to three semesters in high school) but do not have skills adequate for 200-level courses. Equivalent to SPA 100 and SPA 101 when both courses are taken. Not open to students who have credit for SPA 100. Prerequisite(s): departmental approval.

SPA 116 Elementary Spanish Review and Conversation  
Typically Offered: Spring  
Credits: 1  OC
Review, conversation and continuation of SPA 101, intended for students who cannot continue their Spanish study until the fall semester. Prerequisite(s): SPA 101.

SPA 200 Intermediate Spanish 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 Spanish-speaking world. Students must earn a minimum grade of C in order to continue in sequenced language courses. Prerequisite(s): 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): grade of C or higher in SPA 200 or departmental approval.

SPA 211 Spanish 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 Spanish, as well as concentrating on increased awareness of Spanish customs and culture. The topic will vary with each offering, including the following settings: business, health care, legal, social services, tourism. Will fulfill major requirement only with departmental approval. May be repeated for credit. Prerequisite(s): SPA 200 or equivalent.
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.

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.

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. Students in this course are required to take the Missouri Educator Profile (MEP). To be taken concurrently with EDU 203. Prerequisite(s): either ENG 104 and ENG 108, or ENG 112.

EDU 203 Participation in Teaching I
Typically Offered: Fall, Spring Credits: 1 OC, OL, 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 the principles of growth and development, learning theories, readiness and maturity, individual differences and emotional learning. Prerequisite(s): PSY 140 and credit or dual enrollment in EDU 203.

EDU 315 Psychology and Education of the Exceptional Child
Typically Offered: Fall, Spring, Summer Credits: 3 OC, OL, CTC
This course is a survey of issues related to the identification and teaching of exceptional students. All state and federally defined categories of disability will be addressed by definition, etiology, prevalence, school law, civil rights law and curriculum and teaching issues. Topics will include curriculum and instruction modifications and adaptations as well as behavior management and discipline. Prerequisite(s): EDU 202 and EDU 203; declared minors in Childhood Studies are exempt from EDU 202 and EDU 203 as prerequisites.

EDU 370 Behavior Management
Typically Offered: Fall Credits: 2 OC, OL, CTC
Designed to provide classroom management skills for teaching both large groups and small classes of exceptional students. The course will focus on theories of applied behavioral analysis and its application for effective teaching. Behavior modification, cognitive behavior management, self-management and social skills training will be included. Prerequisite(s): PSY 101 and EDU 315.

Questions? Call: (816) 271-4109 missouriwestern.edu/dualcredit

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PROFESSIONAL STUDIES

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.

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 and RLC circuits); operators, phasors, reactances, phase relationships, power, network theorems, sinusoidal AC voltages, currents, impedances and admittances (RL, RC and 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 dual 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 (ALUs), programmable logic devices (PLDs) 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, ALUs, 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.

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 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-detalled 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.

Questions? Call: (816) 271-4109  missouriwestern.edu/dualcredit
Legal Assistant

LAT 101 Introduction to Law
Typically Offered: Fall, Spring, Summer 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.

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 dual enrollment in LAT 101.

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, SCRs, 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.

Nursing

UNV 101 Nursing
Typically Offered: Fall Credits: 3 OL
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.

Physical Education

PED 100 Introduction to Health, Physical Education and Recreation
Typically Offered: Departmental Discretion Credits: 3 OC
Introduction to fields of study in health and exercise, physical education and recreation sport management. Basic information about the different possible career opportunities, as well as professional organization affiliations.

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.

Physical Therapist Assistant

PTA 100 Introduction to Physical Therapy  
Typically Offered: Fall, Summer  
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.

Social Work

SWK 250 Introduction to Social Work  
Typically Offered: Fall, Spring  
Credits: 4  
OC
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. Prerequisite(s): ENG 104 and either PSY 101 or SOC 110, or departmental approval.

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 dual credit/dual enrollment 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 dual credit 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.
- Dual credit/dual enrollment students must register for the MPE through the Missouri Western dual credit/dual enrollment website at www.missouriwestern.edu/dualcredit/math-placement-test-information.
- This is a computer-based exam. Exam times must be scheduled in advance. Dual credit/dual enrollment students whose school is within a 30-mile radius of the Missouri Western main campus must come to campus for the proctored exam. High schools outside the 30-mile radius may request that the proctor administer the exam at the high school site one time per semester.
- For further information on the MPE, please contact the Western Institute at (816) 271-4100.

Writing and Reading Placement Exams

The prerequisites for dual credit/dual enrollment 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.
STUDENT SERVICES

Upon enrollment in dual credit/dual enrollment coursework, 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, the dual credit/dual enrollment student is held to the standards outlined in the Missouri Western student handbook. The handbook can be accessed at https://www.missouriwestern.edu/studentaffairs/student-handbook/.

Students may also receive advisement services from Missouri Western.

We all have a goal of helping students complete their degrees faster and cheaper.

Missouri Western representatives are available to provide advisement services to dual credit/dual enrollment students.

If a student has chosen a major or career, we can help them determine the applicable dual credit/dual enrollment courses to put them on a fast track to completing their degree and starting their career.

- Even if a student plans to attend another post-secondary institution, we can provide assistance in determining which courses will transfer to their school of choice.
- We’re experts in 2+2 programs. Let us help your student pick the right courses in their 2-year degree program to help them make a seamless transition in completing their 4-year degree.
- We are available for group or individual advisement sessions. Contact us for meetings at your high school, on our campus, or via email, phone or skype!
At Missouri Western State University,

**everything is possible**

**GENERAL STUDIES REQUIREMENTS**

The following courses fulfill general education requirements at Missouri Western State University. Courses that can be taken for dual credit/dual enrollment are highlighted. *Remember, there is no limit to the number of dual credit/dual enrollment classes a student may take in high school.*

**Category I – Basic Skills**  
(Total of 12 credit hours)  
MAT110 or 110E or 111* or 112 or 116 or 137 or 147 or 165 or 167 (3/4/5)  
ENG104 and 108 or 112 (6)  
COM104 (3)  
*pending approval*

**Category II – Natural Sciences**  
(Total of 8-10 credit hours)  
Minimum of 8 credits with lab from two of the following groups:  
1) BIO101 or 105 (4)  
2) CHE101(4) or 104(5) or 111(5) (4/5)  
3) ESC111 (4)  
4) PHY101(4) or 107(4) or 110(4) or 210(5) (4/5)  
5) PHY104 (4)

**Category III – Social Sciences**  
(Total of 9 credit hours)  
Minimum of 9 credits with at least one course from each of the following two groups:  
1) ECO101 or 260 or 261 or GEO100 or PSY101 or SOC110 or 120 (3)  
2) HIS140 or 150 or PSC101 (3)

**Category IV – Humanities**  
(Total of 9 credit hours)  
One course from three of the following four groups:  
1) HIS200 or 210 or 230 or HUM203 or 204 or 205 (3)  
2) ENGL210 or 220 or PHL210 or 230 or REL250 or 251 or 252 (3)  
3) ART100 or MUS101 or THR113 (3)  
4) Any 3-credit hour 100-level or higher foreign language course (3)

**Category V – Physical Health**  
(Total of 4-5 credit hours)  
PED101 Fitness and Wellness (3)  
One approved physical activity course (1-2)

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**Did you know?**

Because Missouri Western offers online general education courses for dual credit/dual enrollment, a high school student **has the ability to complete his/her college general education requirements while in high school.**

A student could complete 30 college credits at the dual credit tuition rate, which is $98 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 his/her college career with general education requirements already completed and earn his/her degree at an accelerated pace!