

## Social and Behavioral Sciences

### **ECON 101 Economics of Social Issues\* (MOTR ECON 100)**

**3 credit hours (Fall, Spring, Summer)**

This course will introduce students to the application of economic decision making in a discussion of current social and economic issues, focusing on today's most pressing social and economic problems from both a domestic and global viewpoint. Topics will include but not limited to the economics of education, health care, crime, drugs, inflation, poverty, urban congestion, international trade and environmental pollution. Not for Business majors.

### **ECON 201 Principles of Economics (Macro)\* (MOTR ECON 101)**

**3 credit hours (Fall, Spring, Summer)**

A basic course that explains the organization, operation and goals of the U.S. economic system with emphasis on basic principles and concepts; measurement, determination, and stabilization of national income; unemployment and inflation; the role of money and monetary policy; fiscal policy; economic growth; international finance; and current economic problems. Co-requisite: MATH 030 or above.

### **ECON 202 Principles of Economics (Micro)\* (MOTR 102)**

**3 credit hours (Fall, Spring, Summer)**

A continuation of economic principles with emphasis on the theory of price determination and income distribution, with particular attention to the nature and application of those bearing on decision making within a household, firm, or industry; cost and revenue implications of various product and factor market structures; and international trade and finance. Co-requisite: MATH 030 or above

### **PSY 100 General Psychology\* (PSYC 100)**

**3 credit hours (Fall, Spring)**

Introductory course on the scientific study of behavior and mental processes. Covers research and theories in areas of psychology such as abnormal, social, learning and memory, neuroscience, and development. Fulfills a General Education requirement (GER) for Area E2.

### **SOC 110 Sociology\* (MOTR SOCI 100)**

**3 credit hours (Fall, Spring, Summer)**

An introductory course focused on the systematic study of society. Emphasis on major concepts of sociology and the scientific point of view in understanding and explaining human behavior and social phenomena.

## Civic Engagement

### **PSC 120 American Government\* (MOTR POSC 101)**

**3 credit hours (Fall, Spring, Summer)**

Designed to give students an understanding of their governments, enabling them to keep up with political developments with the goal of becoming informed citizens needed to sustain democracy. Successful completion of this course fulfills the requirements for the state-mandated Missouri Constitution Test.

### **HIST 0110 United States History 1492-1877\* (MOTR HIST 101)**

**3 credit hours (Fall, Spring)**

Survey of the United States from colonial times to 1877. Meets the General Education requirement for all majors. Prerequisite: 17 or higher on the ACT Reading Section or 15 hours completed with a GPA of 2.5 or higher.

### **HIST 0120 United States History 1877 to Present\* (MOTR HIST 102)**

**3 credit hours (Fall, Spring)**

Survey of the economic, social and political development of the United States from 1877 to the present. Meets the General Education requirement for all majors. Prerequisite: 17 or higher on the ACT Reading Section or 15 hours completed with a GPA of 2.5 or higher.

## Written Communication

### **ENG 101 College Composition I\* (MOTR ENGL 100)**

**3 credit hours (Fall, Spring, Summer)**

An introduction to the principles of college-level writing and critical thinking. Students will write a number of essays for a variety of purposes and audiences. Successful completion of the course permits the student to enroll in English 102. Students demonstrating exceptional ability as indicated by Writing Placement scores may take English 111. Prerequisite: An English ACT score of 18 or higher or demonstrated ability on a writing placement essay. (Writing Intensive)

### **ENG 102 College Composition II\* (MOTR ENGL 200)**

**3 credit hours (Fall, Spring, Summer)**

Continued development of writing skills. Emphasizes writing from sources. Initiation, development and completion of a research paper. Prerequisite: English 101. (Writing Intensive)

## Oral Communication

### **COMM 100 Oral Communication\* (MOTR COMM 110)**

**3 credit hours (Fall, Spring, Summer)**

Principles of oral communication, including speaking and listening competencies and skills. Primary emphasis is on presenting various types of speeches and improving listening ability. Research organization, reasoning, language and evaluation skill development are included. Three contact hrs. per week. (Required of all degree candidates.)

## Natural Sciences

### **BIO 101 General Biology/Lab\* (MOTR BIOL 001L)**

**4 credit hours (Fall, Spring, Summer)**

A survey of general biological principles that emphasize concepts relevant to the student. Special topics may be used to illustrate course content. Three one-hour lectures, one 2-hour laboratory per week. Fulfills General Education requirements for Area D1. Does not fulfill biology degree requirements. Cross-listed as EH 101

### **BIO 102 General Biology (no lab) (MOTR BIOL 001)**

**3 credit hours**

A survey of general biological principles that emphasize concepts relevant to the student. Special topics may be used to illustrate course content. Fulfills General Education requirements for Area D1. Does not fulfill biology degree requirements. Cross-listed as EH 101.

### **BIO 108 Principles of Biology I (MOTR BIOL 100)**

**3 credit hours (Fall, Spring)**

First in a two-course introductory sequence for biology majors. The unifying principles of living organisms including scientific method, biological molecules, cell structure, function and metabolism, genetics, evolution, and a survey of Prokaryotes, Protistans. Three lectures. Fulfills general education requirements for Area D1. Prerequisites: an ACT comp score of 21 or higher; or BIO 101 or EH 101 with a grade of 'C' or better. High school chemistry strongly recommended. Co-requisite: BIO 109.

### **BIO 109 Principles of Biology I Lab (MOTR BIOL 100L)**

**1 credit hour**

The laboratory component for the first in a two-course introductory sequence for biology majors. The unifying principles of living organisms including scientific method, biological molecules, cell structure, function and metabolism, genetics, evolution, and a survey of Prokaryotes and Protistans. One three-hour lab per week. Prerequisites: an ACT comp score of 21 or higher; or BIO 101 with a grade of 'C' or better. Co-requisite: BIO 108. High school chemistry strongly recommended.

### **BIO 121 Human Anatomy & Physiology I/Lab\* (MOTR LIFS 100L)**

**4 credit hours (Fall, Spring, Summer)**

The first in a two-course sequence in which human anatomy and physiology are studied using a body system approach. Includes the concept of scientific inquiry and the fundamental concepts of cell biology, cell metabolism, and genetics. Three lectures and one, 2-hour lab per week. Fulfills the General Education requirements in Area D1 for certain Allied Health, Environmental Health and Nursing majors.

**CHEM 121 Chemistry for Allied Health Sciences (MOTR CHEM 001)**

**3 credit hours (Fall, Spring, Summer)**

Basic principles and practical applications of general, organic, and biological chemistry. This course satisfies the requirements of certain teacher education and allied health programs.

Prerequisite: Math 30 or a Math ACT score of 22 or higher. Co-requisite: CHEM 122.

**CHEM 122 Chemistry of Allied Health Sciences Lab (MOTR CHEM 001L)**

**1 credit hour**

Basic principles and practical applications of general, organic, and biological chemistry. This course satisfies the requirements of certain teacher education and allied health programs.

Prerequisite: MATH 030 or a Math ACT score of 22 or higher. Co-requisite: CHEM 121

**CHEM 140 General Chemistry I (MOTR CHEM 100)**

**3 credit hours (Fall, Spring, Summer)**

Introductions to theories of chemistry with emphasis on the relationship of structure to properties of matter, the changes that occur during chemical reactions and the quantitative aspects of these changes. Three lectures per week. Prerequisite: 'C' or better in MATH 130 or higher level math course. Co-requisite: CHEM 141

**CHEM 141 General Chemistry I Lab (MOTR CHEM 100L)**

**1 credit hour**

Introduction to theories of chemistry with emphasis on the relationship of structure to properties of matter, the changes that occur during chemical reactions, and the quantitative aspects of these changes. One 3-hour lab per week. Prerequisite: 'C' or better in MATH 130 or higher level math course. Co-requisite: CHEM 140.

**GEOG 120 Physical Geography (MOTR GEOG 100)**

**3 credit hours**

A study of the earth's natural systems including weather and climate, rocks and minerals, landforms and processes of land-form development, bio-geography, water resources and soils. Map fundamentals and the interrelationships of the geographic factors of the natural environment are emphasized. Prerequisites: MATH 020 or higher math or ACT of 19 or higher.

**PHYS 120 Fundamentals of Physical Science\* (MOTR PHYS 010)**

**3 credit hours (Fall, Spring, Summer)**

Basic concepts in the fields of physics, chemistry, geology and astronomy will be presented as time permits. Central to the course will be a working ability in applying some of the basic laws of nature to specific problems. Prerequisite: MATH 030 with a grade of 'C' or better.

**PHYS 121 Fundamentals of Physical Science w/Lab (MOTR PHYS 010L)**

**4 credit hours**

Basic concepts in the fields of physics, chemistry, geology and astronomy will be presented as time permits. Central to the course will be a working ability in applying some of the basic laws of nature to specific problems. Lecture, demonstration and laboratory periods. Prerequisite: MATH 030 with a grade of 'C' or better.

**PHYS 160 Elementary College Physics I/Lab (MOTR PHYS 100L)**

**4 credit hours (Fall, Spring, Summer)**

Mechanics, rotational dynamics, properties of matter, heat, wave motion and sound. This course satisfies the requirements for biology, biochemistry and medical laboratory science, and education programs. Prerequisite: MATH 140.

Humanities and Fine Arts

**ENG 0261 World Literature I (MOTR LITR 200)**

**3 credit hours (Fall, Spring)**

Selected literature from the ancient world through the Renaissance, excluding British and American literature. Option for satisfying Area F General Education requirement. Prerequisite: ENG 101 or ENG 111.

**ENG 0262 World Literature II (MOTR LITR 201)**

**3 credit hours (Fall, Spring)**

Selected literature from the Renaissance to the present, excluding British and American literature. Option for satisfying Area F General Education requirement. Prerequisite: ENG 101 or ENG 111.

**ENG 0271 British Literature I (MOTR 103)**

**3 credit hours (Fall, Spring)**

Survey of British literature from its beginnings through the eighteenth century. Option for satisfying Area F General Education requirement. Prerequisite: ENG 101 or ENG 111. (Can be taught as WI)

**ENG 0272 British Literature II (MOTR 104)**

**3 credit hours (Fall, Spring)**

Survey of British literature from the Romantic Movement to the present. Prerequisite: ENG 101 or ENG 111.

**ENG 0281 American Literature I (MOTR 101)**

**3 credit hours (Fall, Spring)**

A survey of American literature from its beginning to the Civil War. Prerequisite: ENG 101 or ENG 111.

**ENG 0282 American Literature II (MOTR 102)**

**3 credit hours (Fall, Spring)**

A survey of American literature from the Civil War to the present. Prerequisite: ENG 101 or ENG 111.

**FREN 0101 Beginning French I (LANG 101)**

**3 credit hours (Fall, Spring)**

The first semester of French language instruction developing proficiency in listening, speaking, reading and writing and providing an introduction to the study of French-speaking cultures. Prerequisite: None.

**HIST 130 Western Civilization to 1660 (MOTR WCIV 101)**

**3 credit hours (Fall, Spring)**

Survey of the development and progress of western civilization from its origins through the Reformation. Changes in political organization, religion, artistic expression and daily life in the ancient Near East, Greece, Rome and Christian Europe.

**HIST 0140 Western Civilization since 1660 (MOTR WCIV 102)**

**3 credit hours (Fall, Spring)**

Survey of Western societies from the Baroque Era to the retreat of European colonialism. Major emphasis on development of the nation-state, the impact of industrialization, changes in political and religious outlook, the impact of revolutions and two world wars.

**SPAN 0101 Beginning Spanish I\* (MOTR LANG 103)**

**3 credit hours (Fall, Spring)**

This course is the first semester of Spanish language instruction. The course aims to develop skills in listening, speaking, reading and writing, as well as to expose students to the diversity of cultures in the Spanish-speaking world. Prerequisite: None.

**SPAN 0102 Beginning Spanish II\* (MOTR LANG 104)**

**3 credit hours (Fall, Spring)**

This course is the second semester of Spanish language instruction. The course continues to develop skills in listening, speaking, reading and writing, as well as to expose students to the diversity of cultures in the Spanish-speaking world. Prerequisite: SPAN 101 or equivalent level of proficiency.

Fine Arts

**ART 110 Art Appreciation\* (MOTR ARTS 100)**

**3 credit hours (Fall, Spring)**

A survey designed to increase appreciation of the visual arts through readings, slide lectures, library research and visits to the George A. Spiva Center for the Arts. Development of the cognitive and critical processes as they relate to the visual arts are emphasized.

**MUS 106 World Music\* (MOTR MUSC 102)**

**3 credit hours (Fall, Spring)**

An ethnomusicological survey of select indigenous musics and their cultures. The musical cultures selected for study are not those found in Eurocentric (Western art) musics. There are no prerequisites.

**MUS 110 Music Appreciation\* (MOTR MUSC 100)**

**3 credit hours (Fall, Spring, Summer)**

A survey of masterpieces of Western musical literature; intended for non-music major.

**TH 110 Theatre Appreciation\* (MOTR THEA 100A)**

**3 credit hours (Fall, Spring, Summer)**

Introduction to theatre as a communicative and fine art emphasizing collaborative efforts of playwright, artistic director, designer, actor and crew. Activities include the interpretation and evaluation of plays through scripts, live and taped performances.

Mathematical Sciences

**MATH 125 Contemporary Mathematics (MOTR MATH 120)**

**3 credit hours (Fall, Spring, Summer)**

Introduction to various areas of mathematics, such as geometry, statistics, set theory, algebra and other topics. Satisfies the requirement in mathematics for General Education.

Prerequisites: A Math ACT score of 19 (or higher) or MATH 020 with a grade of 'C' or higher.

**MATH 129 Finite Mathematics****3 credit hours (Fall, Spring, Summer)**

This course is designed for majors in the School of Business. The main topics for the course include: Functions and graphs (linear, polynomial, exponential, and logarithmic), linear programming, sets and probability, and an introduction to statistics. All topics emphasize applications in a business environment. Prerequisites: A Math ACT score of 22 (or higher) or MATH 030 with a grade of 'C' or higher.

**MATH 130 College Algebra\* (MOTR MATH 130)****3 credit hours (Fall, Spring, Summer)**

A study of functions and their graphs; including linear and quadratic, polynomial, rational, exponential, and logarithmic functions. Prerequisites: A Math ACT score of 22 (or higher) or MATH 030 with grade of 'C' or higher.

**MATH 135 Trigonometry\*****3 credit hours (Fall, Spring, Summer)**

Trigonometric functions and applications, right triangle trigonometry, radian measure and applications, graphing trigonometric functions, using and verifying trigonometric identities, using sum, difference, half, and double angle formulas, solving trigonometric equations, inverse trigonometric functions, the law of sines and the law of cosines. Prerequisite: A Math ACT score of 22 (or higher) or MATH 030 with grade of 'C' or higher.

**MATH 140 Algebra and Trigonometry (MOTR MATH 150)****5 credit hours (Fall, Spring)**

Equivalent of MATH 130 and MATH 135. Prerequisite: A Math ACT score of 22 (or higher) or MATH 030 with grade of 'C' or higher. Only two hours credit for students with MATH 135 or MATH 130 credit. No credit for students with credit for MATH 130 and MATH 135.

**MATH 150 Calculus with Analytic Geometry I****5 credit hours (Fall, Spring)**

Limits, differentiation, and integration of algebraic and transcendental functions as well as the application of these concepts to real world situations. Prerequisite: MATH 140 (or MATH 130 & 135) with a grade of 'C' or higher or a Math ACT score of 27 (or higher).

**Global Competencies****HIST 130 Western Civilization to 1660 (MOTR WCIV 101)****3 credit hours (Fall, Spring)**

Survey of the development and progress of western civilization from its origins through the Reformation. Changes in political organization, religion, artistic expression and daily life in the ancient Near East, Greece, Rome and Christian Europe.



**HIST 0140 Western Civilization since 1660 (MOTR WCIV 102)**

**3 credit hours (Fall, Spring)**

Survey of Western societies from the Baroque Era to the retreat of European colonialism. Major emphasis on development of the nation-state, the impact of industrialization, changes in political and religious outlook, the impact of revolutions and two world wars.

**FREN 0101 Beginning French I (LANG 101)**

**3 credit hours (Fall, Spring)**

The first semester of French language instruction developing proficiency in listening, speaking, reading and writing and providing an introduction to the study of French-speaking cultures.

Prerequisite: None.

**SPAN 0101 Beginning Spanish I\* (MOTR LANG 103)**

**3 credit hours (Fall, Spring)**

This course is the first semester of Spanish language instruction. The course aims to develop skills in listening, speaking, reading and writing, as well as to expose students to the diversity of cultures in the Spanish-speaking world. Prerequisite: None.

**SPAN 0102 Beginning Spanish II\* (MOTR LANG 104)**

**3 credit hours (Fall, Spring)**

This course is the second semester of Spanish language instruction. The course continues to develop skills in listening, speaking, reading and writing, as well as to expose students to the diversity of cultures in the Spanish-speaking world. Prerequisite: SPAN 101 or equivalent level of proficiency.

## Health and Wellness

**KINE 103 Lifetime Wellness\***

**2 credit hours (Fall, Spring, Summer)**

Designed to provide students with the knowledge and self-management skills that will assist them in adopting healthy lifestyles. The course will encompass all areas of wellness: physical, emotional, spiritual, social and intellectual.

## University Experience

**UE 100 University Experience\***

**1 credit hour (Fall, Spring, Summer)**

UE 100 is required for all degree-seeking students having completed fewer than 30 credit hours. UE 100 is a fundamental course designed to assist first-year students in successfully defining themselves both as active participants in the MSSU community and as citizens of a twenty-first century global community. The course offers information on university personnel, services, facilities, policies, study skills, and MSSU's international programs and international study opportunities. Student participation in co-curricular activities is required.

## Other courses

### **ACCT 201 Principles of Financial Accounting\***

**3 credit hours (Fall, Spring, Summer)**

An introduction to accounting as an information communication function that supports economic decision-making. The topics covered should help students understand the development of financial statements and their interpretation. Prerequisite: MATH 30 or higher.

### **CIS 105 Introduction to Microcomputer Use**

**3 credit hours (Fall, Spring)**

Instruction in the fundamental use of microcomputers through packaged software and operating systems. The course provides a broad introduction to hardware, software, computer networks, online social networking and library database searches. Major application areas are discussed, such as word processing, spreadsheets and presentation tools.

### **CIS 110 Programming I**

**3 credit hours (Fall, Spring)**

Introduces programming in a personal computer based environment. The student will learn the fundamentals of PC hardware, operating systems, and programming. Special emphasis is placed on proper program style, including modularity and structured design. The language of implementation is Visual C#.

Corequisite: Math 130 or above.

### **CIS 202 Information Systems I**

**3 credit hours (Fall, Spring)**

This course provides an overview of the broad field of information systems and technology. Explores the function of information systems and technology in modern organizations. Explores the options for graduates in the field. Introduces terms and concepts that are used throughout the field. Examines options for professional development in the field. Examines the design of information systems. Emphasizes the student's ability to clarify problem statements and define objectives with discussion of analysis of information systems using standard methodologies.

### **CJAD 275 The Juvenile Justice System \***

**3 credit hours (Fall)**

The Juvenile Justice System is a survey course that is designed to introduce the student to the organizations, processes and actors that comprise the Juvenile Justice System. The course emphasizes the history of the juvenile justice system, the agency interactions and interrelationships, the concepts of prevention and diversion, the development of juvenile gangs, the roles of criminal justice professionals and the future of the Juvenile Justice System.

**EDUC 100 Introduction to Teacher Education I****1 credit hour (Fall, Spring)**

An orientation to teacher education required for freshmen who select elementary or secondary education as their major field. Intended to help clarify decisions about education as a major and career choice. Concepts covered include: teaching as a career, teacher preparation, employment prospects, educational funding and technology in education.

**EDUC 301 Technology in Education\*****3 credit hours (Fall, Spring)**

A study designed to explore the role of technology in education with a special emphasis on technology as a tool in teaching and learning. The course will also examine a variety of technologies as well as strategies for the integration of these technologies into instruction. Specific technologies addressed will be subject to change as technology and its application to education continue to evolve. Prerequisite: Must be taken prior to or concurrently with the Junior Block. Required of all teacher education majors

**ENG 240 The Short Story\*****3 credit hours (Fall, Spring)**

In-depth study of short fiction from approximately 1800 to present. Emphasizes close reading/study of text both form and content. Draws upon classic and contemporary works from a range of times, philosophies, cultures, styles and techniques. Pre-requisites: ENG 101 and 102 or ENG 111.

**FIN 101- Introduction to Personal Financial Planning****3 credit hours (Fall, Spring, Summer)**

Introduction to the concepts and tools necessary for effective management of personal financial health. Includes goal-setting, investment decisions, obtaining and using credit, insurance, and retirement planning. Also provides exposure to various business careers and to comparable decision that business owners and managers make.

**GEOG 101 - Introduction to Geography\*****3 credit hours (Demand)**

An introduction to geography, with the goal of increasing geographic literacy and recognizing the importance of geography in everyday life. This course introduces students to the discipline, its basic principles and major concepts, tools, techniques and methodological approaches. It traces the development of modern geography and surveys its physical and human sub-disciplines.

**IET 105 Introduction to Industrial Engineering Technology****3 credit hours (Fall, Spring)**

This course introduces students to the profession. Emphasis is provided in the areas of teamwork, effective communication, professional ethics, as well as introductory concepts in engineering technology. Three one-hour lectures per week. Prerequisites: Students must have a Math ACT score of 22 or higher, or MATH 30 (or higher) with a grade of "C" or better.

**IET 205 Computer Applications and Cost Analysis****3 credit hours (Fall, Spring)**

Provides experiences in software applications in manufacturing settings and fundamentals of cost analysis. Software applications include spreadsheets, databases, project planning and charting. Three hours lecture per week. Prerequisite: Students must have a Math ACT score of 22 or higher, or MATH 30 (or higher) with a grade of "C" or better.

**LE 100 Introduction to Criminal Justice \*****3 credit hours (Fall, Spring, Summer)**

An overview of the criminal justice system to include the roles of police courts, and corrections with an understanding of its response to crime in society. Emphasis is placed on the delicate balance between community interest and individual rights that criminal justice decision-making requires.

**LE 250 Criminal Law\*****3 credit hours (Fall, Spring)**

Criminal law purposes and functions; rights and duties of officers and citizens in relation to local, state, and federal laws. The development, application and enforcement of laws.

**MET 145 Industrial Automation****3 credit hours (Spring)**

This course will provide the student with the ability to program equipment used in industrial automation to perform multiple processes. This course will also focus on operation maintenance and safety requirements of automation equipment in a manufacturing environment. Two hours lecture, two hours lab. Prerequisite: MATH 30 or higher with a grade of "C" or better, or ACT score of 20 or higher.

**RAD 111 Medical Terminology****3 credit hours (Fall, Spring, Summer)**

The language of medicine, especially as related to radiology, through a comprehensive study of the more common medical roots, prefixes and suffixes. Relates medical roots to everyday English words. A Survey of procedural, pharmacological, medical and surgical terms are included. Three hours lecture per week. Cross-listed as HS 111.

**UE 105 CAREER AND LIFE PLANNING\***

**2 credit hours (Fall, Spring, Summer)**

This course is designed to assist students in the career planning process. A primary objective of this course is to learn and practice systematic approaches to career planning and decision-making. To assist in this process, strategies for decision-making and goal setting will be discussed. Students will go on a personal journey to take a closer look at their personality and how their personality, wants, values and decision-making strategies affect how they choose a major or career. Recommended for all undecided majors and open to any students.

