

# **Mathematics**

## **Advanced Algebra II** (1 unit of credit)

This course is designed for the student that has completed Advanced Geometry or Geometry and has a desire to study Algebra II at an accelerated pace. The student will be expected to spend a good amount of time on homework on a daily basis.

Topics will include; equations and functions, products and factors, rational expressions, irrational and complex numbers, quadratic functions, polynomial equations, analytic geometry, exponents and logarithms, and others.

## **Advanced Geometry** (1 unit of credit)

Course Description: This course is designed primarily for students who have completed Honors Algebra I as eighth-graders. It is intended to be a rigorous study of standard high school geometry with an enhanced emphasis on proof and higher-level thinking skills. Topics include logic and proof, parallel and perpendicular line theorems, congruent triangles, concurrency theorems for triangles, similarity, right triangle trigonometry, properties of quadrilaterals, transformations, circles, areas and volumes, and geometric constructions. Analytic geometry is used as a tool in proof and problem-solving throughout the course.

## **Algebra I** (1 unit of credit)

Algebra I will include but not be limited to the topics; real numbers, solving (equations, inequalities, and formulas), problem solving, polynomials, rational expressions, functions, systems of linear equations and additional topics as time permits.

## **Algebra II** (1 unit of credit)

Algebra II will review and extend concepts and skills previously learned in Algebra I and Geometry. Topics will include; problem solving, equations, inequalities, functions, graphing, polynomials, rational expressions, complex numbers, quadratics, conic sections, and others as time and necessity dictates.

**Dual Credit College Calculus** (1 unit of credit)

This is a college level class. This class is taught over the course of 2 semesters. The class is a dual-enrollment class offered through the University of Central Missouri (UCM). It is listed in their catalog as Math 1151, Calculus and Analytic Geometry I, and is the same standard course in differential and integral calculus which is commonly used as the beginning of any rigorous calculus sequence. Upon graduation from Sacred Heart High School, students earn 5 hours of college credit as recorded on a UCM transcript. The credit is transferable to other colleges. The class is taught with the same syllabus and standards used in the on-campus classes as determined by the UCM Department of Mathematics and Computer Science. In order to take the class, students will need to have completed Math 1112 College Trig with a C or better or obtain a designated score on the math portion of the ACT. This score may vary from year-to-year. More information may be obtained at their websites.

**Dual Credit College Algebra** (1 unit of credit)

This is a college level class. This class is taught over the course of 2 semesters. The class is a dual-enrollment class offered through Central Methodist University (CMU). It is listed in their catalog as Math 103, College Algebra. Upon graduation from Sacred Heart High School, students earn 3 hours of college credit as recorded on a CMU transcript. The credit is transferable to other colleges. The class is taught with the same syllabus and standards used in the on-campus classes as determined by the CMU Department of Mathematics. Specific details may change from year-to-year according to the department policy. In particular, a minimum score on the math section of the ACT is usually required. This may change from year-to-year. More information may be obtained at their websites.

**Geometry** (1 unit of credit)

This course is designed to be a study of standard high school geometry with an emphasis on proof and higher-level thinking skills. Topics include logic and proof, parallel and perpendicular line theorems, congruent triangles, concurrency theorems for triangles, similarity, and right triangle trigonometry, properties of quadrilaterals, circles, areas, and volumes. Analytic geometry is used as a tool in proof and problem-solving throughout the course.

### **Dual Credit College Trigonometry** (1 unit of credit)

This is a college level class. This class is taught over the course of 2 semesters. The class is a dual-enrollment class offered through the University of Central Missouri (UCM). It is listed in their catalog as Math 1112, College Trig. Upon graduation from Sacred Heart High School, students earn 2 hours of college credit as recorded on a UCM transcript. The credit is transferable to other colleges. The class is taught with the same syllabus and standards used in the on-campus classes as determined by the UCM Department of Mathematics and Computer Science. In order to take the class, students will need to obtain a designated score on the math portion of the ACT. This score may vary from year-to-year. More information may be obtained at their websites.

## **Foreign Language**

### **Spanish I** (1 unit of credit)

Over the span of their freshman year students will have the opportunity to explore the Spanish language and the cultural richness of Spanish- speaking countries. A number of items will be explored included but not limited to learn the Spanish alphabet, clothing, professions, classroom objects, recreational places, numbers, food, and the conjugation of many verbs. Students are encouraged to continue their learning journey by taking Spanish II in their Sophomore year.

### **Spanish II** (1 unit of credit)

Over the span of their sophomore year students will have the opportunity to explore the language and the cultural richness of Spanish- speaking countries. A number of items will be studied included but not limited to hold a short conversations in Spanish, large numbers, express professional and personal goals, geography, immigration in the United States, translating and interpreting from English to Spanish and vice versa, read small paragraphs in Spanish, the conjugation of present, past and future verbs and much more.

## **Sciences**

### **Dual Credit Human Anatomy 107** (1 unit of credit)

This is a college level class. This class is taught over the course of 2 semesters and is worth 4 college credit hours. The class is a dual enrollment course taught through Central Methodist University. This course is designed to introduce the basic components of the human anatomical systems.

### **Human Anatomy** (1 unit of credit)

This class is taught over the course of 2 semesters. This course is designed to introduce the basic components of the human anatomical systems.

### **Biology** (1 unit of credit)

Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels.

### **Chemistry** (.5 units of credit)

This course is one semester, designed to provide an opportunity to investigate an area of Chemistry and the integral part of everyday life Chemistry plays. We will investigate the periodic table, matter, and its changes.

### **Dual Credit Chemistry 111** (1 unit of credit)

This is a college level class. This class is taught over the course of 2 semesters and is worth 4 college credit hours. The class is a dual enrollment course taught through Central Methodist University. Students utilize the State Fair Community College lab. This class is an introduction to general chemistry and elementary physical chemistry, including atomic theory and structure, periodic table, reactions and properties of elements and compounds. Those lacking college preparation chemistry need permission of the instructor. Prerequisites: College Algebra and Comp I & II.

### **Physics** (.5 units of credit)

This one-semester course is designed to be taught at a college preparatory level. Course material will be selected to mirror the early topics traditionally taught in the first semester of college physics, that is, kinematics and mechanics. The emphasis of this class will be on developing an organized and confident approach to problem solving. Much emphasis will be placed on solving equations (formulas) symbolically and correct use of units in calculations.

### **Physical Science** (1 unit of credit)

Physical Science is a combination of two branches of science---Chemistry and Physics. Chemistry is the study of the properties, composition, structure, and interactions of matter. Physics is the study of the relationship between matter and energy.

## **Social Studies**

### **American History** (1 unit of credit)

American history is a survey course designed to introduce the basic concepts of U.S history since the pre-Civil War era to current times. This course will encourage problem solving, critical thinking and decision-making skills with an emphasis on writing in the Social Sciences.

### **American Government** (.5 units of credit)

This course is designed to offer an introduction into federal, state, and local government. The main focus of this course is on the Federal and Missouri constitutions, including the articles, amendments, and amending process. This course also explores the three branches of government and the different types of governments. Each student is required to pass a test covering both the Federal and Missouri constitutions in order to graduate. These tests will be announced several weeks ahead of time and a detailed study guide will be provided.

### **Personal Finance** (.5 units of credit)

Understanding and managing personal finances are key to one's future financial success. This one-semester course is based on the Missouri Personal Finance Competencies and presents essential knowledge and skills to make informed decisions about real world financial issues. Students will learn how choices influence occupational options and future earning potential. Students will also learn to apply decision making skills to evaluate career choices and set personal goals. The course content is designed to help the learner make wise spending, saving, and credit decisions and to make effective use of income to achieve personal financial success.

**Dual Credit Psychology(PY 101)** (1 unit of credit)

This is a college level class. This class is taught over the course of 2 semesters and is worth 3 college credit hours. This course is designed to offer an introduction to the basic principles and concepts of Psychology. General Psychology is offered through Central Methodist University and will be a dual enrollment course. This course will encourage problem solving, critical thinking and decision-making skills with an emphasis on writing in the Social Sciences.

**Dual Credit Advanced US History (HI 118)** (1 unit of credit)

This is a college level class. This class is taught over the course of 2 semesters and is worth 3 college credit hours. United States history is a survey course designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the problems and issues in United States History. This course will be offered through Central Methodist University as a dual enrollment course. A study of the US and Missouri Constitutions is included to meet state law. All students must pass this test in order to get credit for the course. This course will encourage problem solving, critical thinking and decision-making skills with an emphasis on writing in the Social Sciences.

## **Practical Arts**

**Computer Applications** (1 unit of credit)

This course provides training with new technologies and current technologies that allows students to become productive, responsible, and successful members of our diverse society. Computer Applications is a course designed to teach students how to use the computer as a business and personal tool through the use of applications software. Appropriate software for database management, word processing, graphics, and spreadsheets will be used. Exploration of Google applications will be our primary focus.

### **Desktop Publishing** (1 unit of credit)

In this course students will gain skills in one or more of the following areas: page design, advanced publishing techniques, copywriting, editing and photography while producing a creative, innovative yearbook which records school memories and events. Participants gain useful, real world skills in time management, marketing, teamwork, and design principles.

### **Dual Credit Personal Finance (FB101)** (.5 units of credit)

This is a college level class. This class is taught over the course of 1 semester and is worth 3 college credit hours. This course is taught through ITV from Central Methodist University. It is a survey course for both business and nonbusiness students in personal financial planning including personal budgeting, investments, insurance, credit, housing, and retirement planning. Fundamentals of financial planning and making educated decisions regarding spending, saving, borrowing, and investing that lead to long-term financial security are key components of this course.

### **Dual Credit Business Enterprise (BU110)** (.5 units of credit)

This is a college level class. This class is taught over the course of 1 semester and is worth 3 college credit hours. This course is taught through ITV from Central Methodist University. Business Enterprise is an introduction to business. Survey course to acquaint students with the major institutions and practices in the business world, to provide the elementary concepts of business, to act as an orientation course for selecting a major, and to provide information on business career opportunities.

## **Physical Education**

### **Freshman PE/Health** (1 unit of credit)

Each class is one semester

## **Fine Arts**

**Art** (1 unit of credit)

**Band** (1 unit of credit)

**Choir** (1 unit of credit)

**Theater Arts** (1 unit of credit)

Theatre Arts class meets the fine arts requirement for graduation. The first semester of the class introduces the student to beginning acting techniques and theatre appreciation. The class will be actively involved in ensemble building, relaxation for the stage, concentration, movement, voice improvement, improvisation, play analysis, character analysis, performance and production of a story adaptation for elementary classes, scene work, monologues, audition skills, and theatre vocabulary.

In the second semester, the focus is on stagecraft, which covers play analysis for development of the production concept, collaboration of director and designers, basic scenery construction techniques, set design and scenic painting techniques, lighting design, costume and makeup design, props design, sound design, publicity (including graphic design), and theatre vocabulary. The focus of this portion of the course is on active participation as a team member in project-based learning.

## **Religion**

**Liturgical Music** (1 unit of credit)

**Religion I** (1 unit of credit)

Old Testament and New Testament

**Religion II** (1 unit of credit)

Doctrine and Social Justice

**Religion III & IV** (each class is 1 unit of credit)

*A combination of five topics are covered:*

Christian Vocations

Prayer/Service/Stewardship

Foundations in Morality

Applied Morality

Literature and Sacraments

**Western Civilization** (1 unit of credit)

This is a college level class. This class is taught over the course of 2 semesters and is worth 3 college credit hours. This course is offered from Central Methodist University and will be a dual enrollment course. Western Civilization is a survey course designed to introduce the basic concepts of Western Civilization with special emphasis on the Protestant Reformation. This course will encourage problem solving, critical thinking and decision-making skills with an emphasis on writing in the Social Sciences.

## **Language Arts**

**Dual Credit College Composition I (EN 110)** (.5 units of credit)

This is a college level class. This class is taught over a period of 1 semester and is worth 3 college credit hours. It is a dual enrollment course taught through Central Methodist University. This course focuses on techniques of topic development, drafting, and revision to help students write clear, concise sentences, paragraphs, and essays. Includes the study of grammar, syntax, and diction and their relationship to effective writing

**Dual Credit College Composition II (EN 111)** (.5 units of credit)

This is a college level class. This class is taught over a period of 1 semester and is worth 3 college credit hours. It is a dual enrollment course taught through Central Methodist University. This course continues the mastery of techniques of topic development, drafting, and revision but focuses more on developing organizational patterns(e.g. Narration, process, comparison, definition, and cause and effect). Students will practice these patterns through writing several essays, including a research essay. Also the study of grammar, syntax, and diction and their relationship to effective writing.

**English I** (1 unit of credit)

This course will allow students to improve their skills in English language arts. Our primary concern is to create a foundation for effective communication. Our goals are to reinforce each student's ability to read, interpret, and analyze literature; to express their own ideas clearly and correctly in writing; to listen actively and purposefully; and to express opinions thoughtfully and courteously in group discussion. Students will engage with various forms of literature including, but not limited to fiction, nonfiction, poetry and drama, and will understand and use the literary terms connected with these forms of writing. Students will apply critical thinking strategies to become more active readers.

**English II** (1 unit of credit)

This course will allow students to improve their skills in the use of the four communication arts: reading, writing, listening, and speaking. Our primary concern is to create a foundation for effective communication. Our goals are to strengthen each student's ability to read, interpret, and analyze literature; to express their own ideas clearly in writing; to listen actively and purposefully; and to speak thoughtfully and courteously in group discussion. A number of literary genres will be explored and discussed including, but not limited to, short stories, novels, drama, and poetry. Students will be encouraged to consider literature as a medium of expression of themes and ideas that have relevance in their personal lives.

**English III** (1 unit of credit)

This English course emphasizes advanced grammar. It includes comprehensive sentence construction, parallelism, parts of speech (with an emphasis on the use of verbals), and the application of those skills in writing. This course is also designed to assist the students in taking the ACT. ACT vocabulary and test taking skills are also part of this curriculum. Essays are assigned, included typical topics for college admission and scholarship applications. Advanced English III includes a unit on short stories--explanations of literature construction and how to analyze literature. This English class is designed for the student who anticipates a professional career.

**English IV** (1 unit of credit)

English IV is a comprehensive grammar based class based on construction of sentences and writing cohesive essays and research papers. The literature component includes short stories, novels, biographies, and the analysis of content and presentation of the material. There is also an emphasis on ACT, particularly in the English and Reading sections. Vocabulary is included in the curriculum. Writing essays for college applications and scholarship applications is an integral part of English IV. This course is designed for college bound students.

**Technical Writing** (1 unit of credit)

This course will be an English course for students who are lacking in basic English grammar. It is designed to enhance the students' knowledge of the proper construction of sentences and basic writing skills. It will also include resumes, cover letters for job applications, business letters, etc. This course is for the student who anticipates a non-professional career.

## **Electives**

### **Act Prep** (.5 units of credit)

This is a 1 semester course. The purpose of ACT Prep is to increase student awareness of the importance and significance of preparation for improving their ACT college entrance exam score. The students will become more confident of their ability of work with various concepts and relationships of the five areas tested by the ACT. Students will learn how to think systematically and use the precise logic required for solving typical problems found on the ACT exam. Active involvement in and successful completion of the course should lead the student to greater confidence and higher scores on the ACT exam.

### **Speech** (.5 units of credit)

This course will allow students to focus on the understanding, appreciation, and practices involved in generating, designing, delivering and evaluating ideas for speech situations within our society. Our primary concern is to develop self-confidence in oral communication. Our goals are to explore the dynamics of interpersonal communication, develop techniques to create and support a speech thesis, adapt speech content according to purpose and audience, use suitable vocal and physical delivery techniques, and to collaborate and communicate in groups by listening, reflecting, and responding appropriately in context. Students will be encouraged to consider public speaking as a vital means of communication that will have significant impact on their personal and professional lives.

### **Personal Fitness** (1 unit of credit)

This class explores and learns of different sports and fitness activities that can be enjoyed throughout one's life

### **Teacher Aide** (.5 units of credit per semester)

### **Weight Training** (1 unit of credit)

## **Career & Technical Center**

(Offered through State Fair Community College)

Health Occupations

Agriculture Education

Building Trades

Auto Mechanics

Machine Tool

Welding

Electronics & Computer Networking

Graphic Arts

Child Care Career

Criminal Justice

### **Dual Credit Information:**

Students must have a 3.0 cumulative GPA and an ACT score on file to enroll in dual credit courses.

All dual enrollment courses entail an additional fee to the offering school for college credit and textbook. The average cost of a dual credit course is approximately \$85.00 *per* credit hour.