



# **SCHOOL of the OZARKS**

## **Course Catalog 2012-2017**

### **Grades 9-12**

#### **INTRODUCTION**

**School of the Ozarks, a Laboratory School of College of the Ozarks**

#### **A Classical Christian School**

School of the Ozarks is a classical Christian laboratory school of College of the Ozarks. We address Christian first because being a Christian school is our first priority. “He is the image of the invisible God, the firstborn of all creation. For by Him all things were created, both in the heavens and on earth, visible and invisible, whether thrones or dominions or rulers or authorities – all things have been created through Him and for Him. He is before all things, and in Him all things hold together.” (Colossians 1:15-17, ESV) Teachers are challenged to design every course and develop every lesson through the lens of a Christian worldview, asking the question, “What does this lesson teach us about the character and nature of God.”

The school is also structured as a classical school, which means that we believe that the design of educational experiences should mirror the natural stages of child development. All lessons are developed through careful and thoughtful planning, based on the age-appropriate development of the student. Therefore, students in grades 9-12 are asked to a lot of reading writing, and reflecting, and are often called upon to publicly stand to express and defend what they have studied or believe.

#### **CHRISTIAN WORLDVIEW**

##### **Grade 9 – Christian Worldview, The Drama of Scripture and Principles of Interpretation**

Course Description: The aim of this course is to help students find their place in the biblical story. As we read Scripture, we find that God is telling us one large story in which we move from the audience to the stage. In order to “play our part well,” we must learn the script that comes before and the directions we have received for our part as the Church.

##### **Grade 10 – Christian Worldview, The Story of the Church**

Course Description: As believers, we are not isolated individuals in relationship with God; we are a part of God’s people across the world, the Church. But not only do we connect with believers across the world, we are a part of a larger story of God’s people throughout time. Too many Christians are unaware of the beautiful heritage of the Church, and as a result miss out on a

wealth of good teaching, encouraging words, and faithful examples. In this class, we won't just memorize dates and events and names of dead people. Instead we hope to see these people come alive and become part of our own story.

### **Grade 11 – Christian Worldview, Historical and Systematic Theology**

Course Description: A. W. Tozer once said, “What comes into our minds when we think about God is the most important thing about us.” If we think wrongly about God, it impacts every area of our lives. As Augustine wrote in the City of God, “It is hard to live right if one's faith in God is wrong.” We believe that right thinking about God must be matched with a right desire to love God. The aim of this course is to help students understand theology with their head, their heart, and their hands.

### **Grade 12 – Christian Worldview, Living as Jesus Followers in the 21st Century**

Course Description: By the time students reach their senior year, we hope that their exploration of the history of the world and the Church's influence in that world has encouraged them that we have endured difficult times before. Nevertheless, each new age presents different challenges and we as the Church must be prepared to live faithful lives in the midst of whatever culture surrounds us. To that end, this course aims to prepare students to live lives of faithful presence in the culture, through the Church, and by the power of the Holy Spirit.

## **SCIENCE**

### **Grade 9 - Biology**

Course Description: A freshman-level laboratory course. Biology literally means “the study of life”. During the course we will study those concepts that describe a living organism through detailed study of introductory cell and molecular biology, genetics and principles of hereditary, taxonomy, ecology and botany, introductory anatomy, and creation and evolution. The biology curriculum is based on the interaction of living and nonliving things. Emphasis is placed on the scientific method, controlled experiments, logic, and theory.

### **Grade 10 - Conceptual Physics**

Course Description: This course focuses on developing skills and competency in the study of physics at the conceptual level. Emphasis is placed on comparative analysis, rather than sheer computational skill. Topics include classical mechanics in linear, projectile, circular, and rotational motion, a treatment of special and general relativity, study of the atomic nature and phases of matter, thermodynamics, wave motion, electricity and magnetism, as well as an introduction to atomic and nuclear physics. As such, students will engage in meaningful classroom activities, including lecture, demonstrations, group work, laboratory work, tests, quizzes, and assignments, as well as purposeful daily homework

### **Grade 11 - Chemistry**

Course Description: A junior-level laboratory course. During the course of the year we will study those concepts that describe the composition and changes of matter. Chemistry is a descriptive and quantitative science based on controlled experiments, logic, and theory. Emphasis is placed on measurement, problem-solving, and the processes of physical and chemical change. Models are used to explain observable phenomena and are verified by experimentation and observation. Scientific laws, theories, principles, and concepts are taught from a perspective that promotes an appreciation for the wisdom and creative power of God.

### **Grade 12 - Advanced Biology**

Course Description: A senior-level laboratory course designed to offer a solid foundation in introductory college-level biology. The student will develop an appreciation for the study of life and work to identify and understand the unifying principles within a diversified biological world. The course will examine the integration of other sciences in the study of biology and will seek to cultivate understanding of how the species to which we belong is similar to—yet different from—other species. It will also assist to develop responsible citizens who understand biological issues that could potentially impact human life. These concepts will be used to inspire worship and awe towards our Creator, as He is the author of all life—the One who sustains and holds our universe together.

### **Grade 12 - Advanced Physics**

Course Description:

1. Kinematics - Linear Motion (Ch 2), Motion in two or three directions, Vectors (Ch 3)
2. Newton's Laws of Motion (Ch 4)
3. Circular Motion (Ch 5 and 10)
4. Gravity (Ch 6)
5. Work, Energy and Conservation of Energy (Ch 7-8)
6. Thermodynamics (Ch 19-20)
7. Electrical and Magnetic Fields (Ch 21 and 27)
8. Waves (Sound, Light) (Ch 15,16 and 32)
9. Electric Currents, Resistance, Circuits (Ch 25-26)
10. Special Theory of Relativity (Ch 36)
11. Atomic Theory/Nuclear Physics (Ch 41)
12. Astrophysics (Ch 44)

## **HISTORY**

### **Humane Letters Grade 9 - The Classical and Biblical World**

Course Description: This course, will provide course objectives that integrate with the works read in the classical literature course, while enriching students' lives with an interdisciplinary survey of classical and ancient history that encompasses a Christian approach. This course will give the student an appreciation of the influence of different areas of thought and experience on each other, e.g., the influence of men such as Moses, Paul, Homer, and Aristotle, whose impact on their culture and place helped, in the plan of God, to shape the entire subsequent course of Western history. The course is designed to establish the religious, philosophical, and political contexts most crucial to the study of Western history and literature.

### **Humane Letters Grade 10 - Medieval and Modern History to 1945**

Course Description: Students will study the major events, people, places, and intellectual trends that are foundational to an understanding of Western civilization as it developed during this time period. This course will also examine American history as the country overcomes major obstacles it faced in the U.S. Civil War, Great Depression, and World Wars.

### **Humane Letters Grade 11 - American/Modern History --A.D. 1620-present day**

Course Description: This course will pick up with the dropping of the Atomic bombs through modern day history as we examine the major events of post WWII history with particular attention to the uniquely American understanding of rights and duties.

In the 2<sup>nd</sup> Semester we discover the importance of American liberty and order, while examining the foundations of our government. We will discuss the rights and responsibilities of citizenship, while asking what it means to be an American. In answering that question, it seeks to provide a better understanding of the meaning of the "self-evident truths" on which this nation was founded.

### **Grade 12 - American Civics/Economics/Personal Finance**

Course Description: This course examines an in depth examination of the first government of the United States, the Articles of Confederation, and the current government, the United States Constitution. It seeks, in sum, to instill in students the proper spirit of patriotism upon which self-government depends.

During the 2<sup>nd</sup> semester students are introduced to the major principles of sound economic thinking as well as the principles to live by in Dave Ramsey's Foundations in Personal Finance.

## **MATH**

### **Grade 7 - Pre-Algebra**

Course Description: Master fundamental mathematical operations and order of operations with numerals and variables.

Practice using the fundamental operations and order of operations with fractions, percentages, and units of measure.

Explore polynomials, use basic geometric facts, and be able to express probability. Exhibit competency in theoretical and real world mathematical content through both formal and informal assessments and evaluations.

Demonstrate the ability to solve problems through symbolic representation.

Interpret quantitative data to make logical judgments and conclusions.

### **Grade 8 - Algebra 1**

Course Description: This course focuses on developing foundational algebraic skills, critical thinking, and mathematical thought. Topics include operations with rational numbers, solving equations and inequalities, polynomials and factoring, graphing and linear equations, solving systems of equations, rational and radical expressions and equations, function notation and quadratic equations. Students will engage in meaningful classroom activities, including lecture, group work, tests, quizzes, and assignments, as well as purposeful daily homework.

### **Grade 9 - Geometry**

Course Description: This course is a basic study, mainly in Euclidean geometry. Students learn to use formal logic to develop a system of mathematical thought from foundational ideas and then building and expanding upon that foundation through formal proof. Students are expected to be able to stand in front of their peers and defend their conclusions using sound mathematical proof. Class members are also challenged to extend and apply this same method to other disciplines such as science or Christian worldview. The study of geometry helps students to learn how to answer the questions of “why,” and “how do you know?” Geometry literally means “earth measure,” but it is our hope that students not only understand the mathematical concepts of geometry, but can see their application to “measuring the world” from a Christian worldview. Throughout the course, students learn to make application of the theorems they have proved to solve realistic mathematical problems. Non-Euclidean geometry is briefly addressed, but not studied extensively. Prerequisite: Algebra I.

### **Grade 10 - Algebra 2**

Course Description: Explore algebraic concepts regarding equations, functions, polynomials, exponents, and logarithmic functions.

Examine algebraic applications in areas of finite mathematics (matrices, sequences and series, probability, and statistics).

Become familiar with trigonometric functions, identities, and equations.

Demonstrate the ability to solve problems through symbolic representation.

Interpret quantitative data to make logical judgments and conclusions.

### **Grade 11 - Advanced Mathematics (Advanced Algebra, Trigonometry, Pre-Calculus)**

Course Description: This course focuses on developing advanced algebraic skills and trigonometric competency through extensive work with polynomial, exponential, logarithmic, and trigonometric functions. Additionally, students will be exposed to basic matrix operations, counting principles, analytic geometry, and introductory limits. Students will also foster critical thinking and mathematical thought. As such, students will engage in meaningful classroom activities, including lecture, group work, tests, quizzes, and assignments, as well as purposeful daily homework.

### **Grade 12 - Calculus**

Course Description: This course focuses on developing advanced placement-type calculus skills and an understanding of the contents of the curriculum, which includes review of polynomial, exponential, and trigonometric functions, an introduction to parametric functions, extensive work with limits, derivatives, integrals, and differential equations, and exposure to calculus applications of sequences and series. Students will also foster critical thinking and mathematical thought. As such, students will engage in meaningful classroom activities, including lecture, group work, tests, quizzes, and assignments, as well as purposeful daily homework.

## **LITERATURE**

### **Grade 9 - Classical Literature and Rhetoric**

Course Description: In this course, we read and study selected works of literature such as *Aeschylus, Aristotle, Cicero, Homer and Ovid*. Students will be expected to draw conclusions, to critically examine the people and events connected to the literature, and to learn the major events, people, places, and intellectual trends of the era being studied. Instruction emphasizes developing students' writing skills, but also introduces the literary genres: prose fiction, drama, and poetry. Students will prepare and write a research paper dealing with a literary work. Student-instructor conferences individualize instruction each semester.

### **Grade 10 - World Literature & Rhetoric**

Course Description: In this course, we read and study important events, major texts and works of art that formed the civilization of modern Europe—from the Renaissance through the first half of the 20<sup>th</sup> century. We pursue thematic coherence and centrality in our choices, not coverage. The works of literature in this course have been selected to correspond as closely as possible with the topics being taught in tenth grade history. Students will learn to identify and explain connections between the historical context and the literature studied. Instruction continues to emphasize

students' reading and writing skills which includes grammar, spelling, vocabulary, speaking and listening, and critical thinking. Students will write a research paper dealing with a literary and historical theme. Student-instructor conferences individualize instruction each semester.

### **Grade 11 - American Literature and Rhetoric**

Course Description: In this course, we emphasize the major authors and texts that represent and illustrate what is unique and central to the American literary tradition. Consideration of the historical and cultural context of the readings add substantially to each student's understanding of the works and provide additional insight into what it means to be an American. Students will evaluate texts, analyze literature, and explore related thematic topics; they will demonstrate logic and organization in writing and speaking. Each unit consists of reading assignments, writing activities, grammar and language usage, vocabulary exercises, and speaking exercises. Students will write a research paper, and will maintain a writing portfolio. Thus, time management outside of class is essential to complete and comprehend the assigned reading and writing. Student-instructor conferences individualize instruction each semester.

### **Grade 12 – British Literature**

Course Description: Some have said that it is a waste of time for Christians to study literature because we live in the “real world” and fiction is just a means of escape from our duties here. This is an unfortunate position, especially since we can see that Jesus used parables (fictional stories) to illustrate points. Fiction, fantasy, and poetry all provide us insight into the real world. In fact, G.K. Chesterton went so far as to say that fiction is preferred to books of science not only because they are more fun to read, but because “the novel is more true than they are.”

## **LANGUAGE**

### **Latin**

#### **Grade 9 - Latin I**

Course Description: In 9th grade Latin we will learn to speak, write and read the language of the Ancient Romans. Our ultimate goal is to be initiated into an abundant wellspring of our cultural patrimony and to become good citizens of the *rēs publica litterārum* (the republic of letters).

#### **Grade 10 - Latin II**

Course Description: In 10th grade Latin we continue our study of the language of the Ancient Romans. We will learn to speak, write and read Latin. Our ultimate goal is to be initiated into an abundant wellspring of our cultural patrimony and to become good citizens of the *rēs publica litterārum* (the republic of letters).

### **Spanish**

Course Description: A beginning Spanish course, covering elementary Spanish grammar, vocabulary and Hispanic culture, with practice in conversation, listening comprehension, reading

and writing. *Course meets for three 45-minute periods per week during the academic year (two semesters).*

## **FINE ARTS**

### **Concert Band**

Course Description: Concert band includes the advancement of individual performance skills including tone quality, intonation, technique, and the various aspects expressive musicianship. Each musician is given experience in various musical styles and idioms including classical, music from motion pictures, Broadway show tunes, rock, and jazz. Improvisation is encouraged. Music theory is studied. Students gain a knowledge of advanced rhythms, key signature construction, scales, and arpeggios in both major and relative minors. The students perform in the concert band, a jazz ensemble, small ensembles, and as soloists. Seniors announce at concerts and are given experience directing the band.

### **Choir**

The School of the Ozarks high school choir includes students from 9<sup>th</sup> – 12<sup>th</sup> grades who learn, prepare, and perform music for school and college programs. Students will study and explore music theory, history, patriotic music, other languages, world cultures, Scriptures, and Christian worship and heritage. They will work individually as well as in small and large ensembles and have the opportunity to compete in district, regional, and state contests. Students will exhibit leadership not only through leading worship in chapel or conducting choir rehearsals or performances, but also with good behavior, work ethic, and attitude. We will train our God-given instrument, the voice, to be ready and improved in service of our God and King, here and in the life to come.

### **Theatre**

Course Description: The purpose of this course is to provide a comprehensive interactive experience for the students in theatre during the semester. Topics will include theatrical spaces, production staff, play structure, acting, directing, rehearsing, and performance.