

# Course Catalog with Course Descriptions

## Algebra 1

**Course Description:** Students are introduced to the foundational skills needed for more advanced mathematics courses and develop the skills needed to solve mathematical problems. Students perform operations involving numbers, sets, and variables; know the basic properties of real numbers; solve and use first degree equations and inequalities; understand functions, relations, and graphs; solve and use systems of equations and inequalities; solve problem involving integral exponents; solve problems involving polynomials and rational algebraic expressions; factor polynomials; simplify rational and irrational expressions; solve and use quadratic equations.

## Algebra 2

**Course Description:** Students continue learning and working with the concepts of algebra including operations with matrices, relations, functions, variation, exponential growth and decay, imaginary numbers, complex numbers, logarithmic functions, quadratic equations, graphing, trigonometric ratios, and systems of equations.

*Prerequisite: Completion of Algebra 1 and Geometry with a grade of 'C' or higher.*

## Anatomy and Physiology

**Course Description:** Students will focus on the structure and function of the major human body systems. Semester 1 includes the introduction, histology, skeletal, muscular and part 1 of the nervous system. Semester 2 is part 2 of the nervous system, cardiovascular, digestive and reproductive system.

*Prerequisite: Completion of Biology with a grade of 'C' or higher.*

## Biology

**Course Description:** Students are introduced to the scientific method, cell biology, basic principles of genetics, biological changes through time, classification and taxonomy, structure and function of plants, structure and function of animals, structure and function of the human body, and ecological relationships. Activities include online lessons, virtual laboratories, and hands-on experiments that can be completed at home.

## Chemistry

**Course Description:** Students investigate the composition of matter and the physical and chemical changes it undergoes. Students use science process skills to study the fundamental structure of atoms, the way atoms combine to form compounds, and the interactions between matter and energy.

*Prerequisite: Completion of one high school science course with a grade of 'C' or higher.*

## Civics

**Course Description:** Civics provides a comprehensive background for the understanding of United States citizenship and the foundations and operation of American government. Students will apply this understanding to current event topics relevant to our nation and election issues. This course will emphasize civic participation by the students. This course is an elective and will not fulfill the American Government requirement.

## Creative Writing

**Course Description:** Students will explore several different forms of creative writing. Topics include poetry, short fiction, creative nonfiction, mixed genre, drama, and digital creative writing. Students will also take part in the writing workshop process, where they will work with their peers to critique and review their writing.

## Consumer Mathematics

**Course Description:** Students apply computational skills to real-world consumer application situations, including the purchase of goods and services, the cost of credit, the sale of goods and services, banking services, investments, personal income and taxes, budgeting, automobile ownership, commercial transportation, housing and retirement. Students apply these concepts by completing independent projects.

## **Earth and Space Science**

**Course Description:** Students will study the four primary Earth Systems--the Atmosphere, Biosphere, Geosphere, and Hydrosphere--and the interconnections between each system. Through various methods of scientific inquiry, students will examine the interactions of air, water, and other physical processes that shape the physical world. Students will also explore the Earth and its place in space as part a the solar system, galaxy, and the universe.

## **Economics**

**Course Description:** Students are involved in discovering the definition of economics, the concept of scarcity, supply and demand, resource allocation, institutional and governmental effects on consumer behavior, unemployment, regional, national and global competitive situations, the economic cycle, and the production of goods and services by industry and government.

## **English 9**

**Course Description:** Students are actively engaged in language studies through guided writing practical exercises for mastering English grammar, mechanics, grammar, usage, and structure in preparation for research-based writing assignments. Students must complete both sections of this course to earn English I.

## **English 10**

**Course Description:** Students engage in various integrated language arts activities to include reading, writing, speaking, listening, language, and literature in preparation for college and career readiness. Students develop writing skills through guided creative and practical writing activities and compositions. Language study continues through the application of rules for sentence formation, usage, spelling, and mechanics. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments.

## **English 11**

**Course Description:** Students compose readers' responses that demonstrate a thorough analysis to a variety of classical literature selections, including knowledge of literary techniques that affect the meaning of a literary work. Language study continues through the application of rules for sentence formation, usage, spelling, and mechanics. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments.

## **English 12**

**Course Description:** Students develop a foundational understanding of contemporary literature through integrated educational experiences in the language arts strands. Emphasis will be on works of major contemporary authors, representing various cultures, whose writings reflect the characteristics, problems, and themes of modern culture and society.

## **Environmental Science**

**Course Description:** Students develop elementary concepts about man's interaction with the environment, including technology, air, water, and land pollution, conservation of natural resources, and society's impact on the environment.

## **Film Studies**

**Course Description:** Students will explore films as texts. As a medium of presentation, films convey narrative and employ many of the same elements of literature and art in a beautiful combination that is enhanced by the dramatic performance and functional form and style. The artistic construction can be appreciated along the lines of its individual elements as well as its original medium. This course will involve various activities to explore film techniques and analysis of films, create original films, and enjoy watching films as a classroom community.

## Geometry

**Course Description:** Students experiment with transformations in the plane, understand congruence in terms of rigid motions, prove geometric theorems, make geometric constructions, understand similarity in terms of similarity transformations, prove theorems involving similarity, understand and apply theorems about circles, find arc lengths and areas of sectors of circles, explain volume formulas and use them to solve problems, visualize relationships between two-dimensional and three-dimensional objects, and apply geometric concepts in modeling situations by using traditional and real world mathematical practices.

## Introduction to Journalism

**Course Description:** Students will work on a school newspaper/video news program in which students will investigate, record, and disseminate information about the school, on-campus people or events of interest, and local community news. Students will collaborate with other students and adults frequently; they will learn professional writing skills, source evaluation and crediting, and web publishing and/or video creation and editing.

## Introduction to Photography

**Course Description:** Students explore the aesthetic foundations of art making using beginning photography techniques that include color and/or black and white photography via digital media and/or traditional photography. Students become familiar with the basic concepts of compositional foundations and evaluating a successful print through creation of a portfolio of images.

## Personal Finance

**Course Description:** Students learn the concepts of personal and family financial management that includes money management, saving and investing, spending and credit, the role of financial institutions and the consumer, consumer information and taxation and financial planning.

## Physical Science

**Course Description:** This course explores the physical world, focusing on the interaction of matter and energy, real life applications, utilizing the scientific method and the process of science. Students will gain the skills needed to be successful in Chemistry and Physics.

## Physics

**Course Description:** This course focuses on making sure students get a clear understanding of motion, energy, electricity, magnetism, and the laws that govern the physical universe. Students learn to understand scientific principles and processes, ask questions, present hypotheses, experiment, solve problems, and think abstractly and critically.

## Pre-Calculus

**Course Description:** This course provides a structured entry to advanced studies while building on concepts learned in previous high school math courses. Designed to be taken after Algebra 2, Pre-Calculus builds upon students' understanding of various aspects of functions and expands their knowledge of trigonometric functions, all while helping them make connections between Geometry and Algebra.

## Psychology

**Course Description:** Students acquire an understanding of the foundations of psychology theories and an appreciation for human behavior; behavior interaction and the progressive development of individuals that helps them better understand their own behavior and the behavior of others.

## Service Learning

**Course Description:** Students are provided an introduction to service learning and identify opportunities for leadership in the areas of service-learning and civic responsibility. Academic, personal, and career skills needed for effective service-learning project implementation will be applied through structured service projects that meet real school and/or community needs. Students will actively participate in meaningful service-learning experiences of at least 30 hours duration.

## **Sociology**

**Course Description:** Students engage in the analysis of the social contexts; groups, neighborhoods, cities, and whole societies in which thoughts, feelings, beliefs, ideas and norms are formed, learning how people function within these societal norms. Using sociologists' tools, students learn to observe, describe, analyze, and sometimes predict people's behavior in certain situations and conditions.

## **Spanish 1**

**Course Description:** Students to begin to acquire proficiency in Spanish through a linguistic, communicative, and cultural approach to language learning. Emphasis is placed on the development of listening, speaking, reading, and writing skills and on acquisition of the fundamentals of applied grammar. Cross-cultural understanding is fostered and real-life applications are emphasized throughout the course

## **Spanish 2**

**Course Description:** Students enhance proficiency in Spanish through a linguistic and cultural approach to language learning. There is continued emphasis on the development of listening, speaking, reading, and writing skills and on acquisition of the fundamentals of applied grammar. Cross-cultural understanding is fostered and real-life applications are emphasized throughout the course.

*Prerequisite: Completion of Spanish I with a grade of 'C' or higher.*

## **United States Government**

**Course Description:** Students will examine important historical documents and interpret their impact on our government and society. Students learn to perform effectively as informed citizens of their community and the United States by acquiring knowledge and skills necessary for active participation in a dynamic, pluralistic and democratic society.

## **United States History**

**Course Description:** Students research the chronological development of the American people by examining the political, economic, social, religious, military, and cultural events that affected the rise and growth of our nation.

## **Workplace Essentials**

**Course Description:** Students learn and demonstrate the introductory skills essential for gainful employment, including applications, resumes, interviewing skills, follow up, and appropriate business communications.

## **World History**

**Course Description:** Students are engaged in the study and research of ancient and modern civilizations, societies, and historical periods leading to the beginning of the 21<sup>st</sup> Century to build a foundation for understanding the human history across different cultures and civilizations. Emphasis will be placed on the interaction among world cultures, the linking of the past and present, and the importance of the relationship of geography and history.