



Capital Area Online Learning Association

Online Course Catalog High School 2017-2018



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eCourses™

EdisonLearning's high school product offering contains a multitude of different activities for a student to complete.

High School (9-12)

Need to Know – Lessons are introduced with Need to Know (N2K) presentations that discuss any prior knowledge needed for the upcoming lesson.

Essential Instruction – The main content of the lesson is found here. Many core lessons will also contain videos to demonstrate sample problems.

Reading Guides – These guides increase students' interaction with and comprehension of an assigned text. They consist of a before-reading section with vocabulary, terms, and an anticipatory set. This is followed by a during-reading section that asks students to answer a combination of comprehension and critical thinking questions about the text.

Textbook & Answer Key – The Textbooks cover material similar to that in the Essential Instruction, but provide more technical information and have a more formal style. The textbook provides additional examples and Concept Reinforcement questions.

Reteaching – The Reteaching page re-emphasizes the main points of the Essential Instruction page content and provides the student with non-graded practice activities.

Instructional Video – These supplemental videos are provided as an additional resource to help increase understanding of the lesson's objectives.

Gizmos – Some Math and Science lessons contain additional interactive simulations that power inquiry and understanding of the objectives in the lesson. Each Gizmo includes both a manipulative activity and corresponding formative assessment items.

Extension – Links to additional resources serve as enrichment material to extend beyond the main learning objectives of the lesson.

Assessment – Each lesson contains at least one assessment, which can be a daily assessment, weekly quiz, writing assignment, podcast, or final exam.

EdisonLearning has received approval for NCAA initial eligibility for their Competency Based, Honors, and Project Based eCourses.



Back-to-School 2017

Course Delivery Systems

- **Course Player** - This engaging and interactive content delivery system is used for the majority of our high school eCourses™. The Course Player requires that students interact with content and assessments in a personalized forced progression of learning objects. Mastery settings ensure that a student has succeeded with the objectives of a lesson before the next lesson is unlocked. Students are provided with additional learning objects when needed. (Include an image?)

- **MyDay** - This content delivery system was designed as the result of targeted research with middle school students. As with Course Player, students are provided with a personalized forced progression of learning objects through their daily task lists. Mastery settings are available at an institution and student level to ensure that students have demonstrated success with the objectives of each lesson before moving on to the next. Students are assessed regularly through a variety of games and traditional summative assessments. (Include an image?)
- **Traditional** - This basic user interface allows students to guide themselves through lesson content and assignments. Any eCourse™ can be delivered in this view. A performance alert system is available to indicate when academic interventions are needed based on lesson and cumulative assessments.

High School Course Types

- **Foundation** – Each course is designed to ensure that students master the foundational skills and knowledge that are critical building blocks for upper-level courses. Foundation eCourses contain fewer lessons than both the Traditional and Competency-Based eCourses. There are over 30 Foundation eCourse offerings in the core subject areas of English Language Arts, Math, Science, and Social Studies.
- **Competency-Based** – Students must demonstrate mastery of the concepts of a lesson before they are able to progress to the next lesson. These courses provide a self-remediating performance monitoring system. Competency-Based courses are self-paced and are available for all high school courses.
- **Credit Recovery** – In this course type, students are able to recover credit for a course they have previously taken, but not been successful in. Credit Recovery eCourses™ are developed as truncated versions of their corresponding Competency Based eCourses™. Students must still demonstrate mastery of the concepts addressed in a lesson before progressing to the next set of objectives. Comprehensive quizzes and unit exams ensure that students are rigorously assessed on all concepts in the course.
- **Extended Electives** – In these courses, students are able to explore career and technical skills through interactive and reflective course content and assessments. Students engage in labs, discussions, and other open-ended activities to explore elective subjects such as Hospitality, Culinary Arts, Manufacturing, Counseling, and many more. The instructional design of these courses empowers students to be in control of their own learning.
- **Honors** – In this course type, students are pushed to apply their understanding of the concepts in each lesson to rigorous performance-based assessments, projects, and conceptual activities. These courses are the perfect fit for students wishing to extend their understanding of a particular subject.

Course Options

- **Diagnostics** – At the time of enrollment, a diagnostic test can be given to a student prior to beginning their course. Students may test out of lessons so that they will only be required to complete the portions of the curriculum they have not yet mastered. Diagnostics are available for all core courses except English Language Arts.
- **Progress Tests** – Students can be assigned a progress test at the beginning and end of each part of a core subject eCourse. The test scores can be monitored and evaluated for student knowledge growth, or they can be used to determine if a student has not fully grasped the content of a specific course part. Based on this knowledge, a student can be moved on to the next eCourse part or interventions or remediation can be put in place to assist the student.
- **Adaptations** – eCourse assessments can be automatically modified on a per-course enrollment basis in order to meet an individual student's needs. Multiple-choice answers can be reduced by half (answer adaptation), or the number of questions in each assessment attempt can be reduced by half (question adaptation). These adaptations abilities exist for all eCourses.

English

English 1

Students will engage with texts from around the world throughout English 1 Project Based. Their worldwide journey through literature will take them from Greece to England, from Spain to Japan, from Russia to the United States, and beyond. In addition to reading and studying great works of literature, students will also learn to write in a variety of styles, including persuasive, expository, and narrative. The project component of this course will allow students to explore the universal themes and concepts they study in the context of real-world examples and issues.

Prerequisite: None

Length: Four Parts

English 2

In English 2 Project Based, students explore the evolution of language, assess rhetorical and narrative strategies, practice a variety of writing styles, and employ vocabulary and comprehension strategies to aid their understanding of a range of texts. Throughout this course, students will read a range of both fiction and nonfiction texts, including epic poems, famous speeches, and novels by William Golding and George Orwell. In each part, students will also complete a project component designed to explore the concepts and themes they study throughout the course.

Prerequisite: None

Length: Four Parts

English 3

What is the difference between explicit and implicit information? How do writers and speakers explicitly and implicitly communicate information? Explicit communication often uses clear, direct language. Implicit communication often incorporates figurative and connotative meanings, requiring readers and listeners to make inferences and use contextual clues to draw conclusions about ideas and events in a text. In this course, students explore and evaluate the specific choices authors and speakers make to effectively convey information both explicitly and implicitly. They also assess how language is used in spoken and written communication, focusing on usage conventions and contested usage, varied syntax, and rules for spelling. Students learn how to write essays that effectively introduce a topic, incorporate transitions, cite evidence from the related texts, and maintain a formal style and objective tone.

Prerequisite: None

Length: Four Parts

English 4

How do writers manipulate language to suit context, audience, and purpose? What kinds of texts lend themselves to multiple interpretations? Why is it important to understand shades of meaning in words, phrases, and whole texts? In the context of seventeenth through twenty-first century fiction and nonfiction texts, students examine point of view, structure, and author's word choice, exploring how these elements work together to achieve specific purposes. Students apply what they learn to their own written responses to the texts they read and analyze in the course.

Prerequisite: None

Length: Four Parts

SAT® Critical Reading and Writing

This course is designed to help students prepare for the critical reading and writing portions of the SAT. In addition to test-taking strategies, students learn reading comprehension strategies, including inferring ideas, understanding tone and intention, and identifying the meaning and crucial elements in a piece of writing. Students also learn about comma usage, case, identifying and creating complete sentences, and writing concise sentences with subject-verb agreement. Finally, students learn how to apply correct grammatical structure to sentences, recognize and understand modifiers and idioms, and develop a piece of writing in response to an essay question.

Prerequisite: None

Length: One Part

Mathematics

Algebra 1

This course takes students on a journey through algebraic concepts and applications. The course focuses on linear equations, inequalities, functions, graphing, systems of equations, polynomials, factoring, quadratic equations, probability, statistics, rational expressions, roots, and radicals. Students build critical-thinking skills and problem-solving techniques required to grasp algebraic fundamentals. At the end of the course, students have a knowledge of and appreciation for algebra and are prepared for future mathematics courses.

Prerequisite: None

Length: Four Parts

Required Materials: Graphing Calculator

Algebra 2

In this course, students learn algebraic concepts such as linear functions, linear systems, matrices, quadratic functions, polynomial functions, polynomials, exponential functions, logarithmic functions, rational functions, radical functions, conic sections, probability, statistics, sequence, series, and trigonometric functions. Throughout the course, students develop critical-thinking skills and problem-solving techniques. By the end of this course, students gain knowledge of and appreciation for algebra and problem-solving that prepares them for future mathematics courses.

Prerequisite: Algebra I

Length: Four Parts

Required Materials: Graphing Calculator

Calculus

Students examine the foundational components of limits, derivatives, integrals, and series and apply this knowledge to problems in economics and physics. Derivatives are used to find lines tangent to curves and integrals. Students learn specific rules of differentiation and explore real-world applications including related rates and optimization. Students explore the graphs of functions and their first and second derivatives to determine relationships. Functions increase in complexity to include logarithmic and exponential components. Various methods of finding the area under a curve are examined and applied, and each method is supported graphically. Integration is used to revolve solids about an axis. The course ends with an exploration of series and parametric and polar scenarios. Students relate these concepts to problems in other disciplines. At the conclusion of the course, students are able to apply their knowledge to physics problems related to speed, velocity, acceleration, and jerk, and find the volume of an object with curved sides, such as a barrel.

Also available to students is a 45-lesson course designed to prepare them for advanced standardized assessments in calculus. Units 1 and 2 provide a review of derivatives and a number of application problems. Students take the first and second derivatives of functions and work with graphs, examining domain, range, extrema, and concavity as they relate to differentiation. Students look at different types of limits. As they review integration, students find areas under curves, areas between curves, and volumes of solids, and apply integration to physics problems. Unit 3 examines integration by parts, partial fractions, and improper integrals. Students also complete problems working with polar coordinates. The end of this course focuses on specific series and sequences as they relate to previously learned calculus concepts.

Prerequisite: Pre-Calculus

Length: Four Parts

Required Materials: Graphing Calculator

Finite Math

This course is designed to provide an introductory, application-oriented experience for students that anticipate majoring in business, management, economics, or life or social sciences. The course has a prerequisite of two years of high school Algebra. College courses in Finite Mathematics typically contain a variety of topics focused on applications in the areas listed above. This course is divided into four distinct parts, each consisting of three units. Each of the units is based around a concept as outlined below. Students will find graded assessments after each lesson and an exam at the end of each unit of the course.

The course is organized as a journey through algebraic concepts and the applications of algebra. The focus is on linear equations, inequalities, systems of equations, matrices, probability, and statistics. Throughout this journey, students will build critical thinking skills and problem-solving techniques that are required to help students address application-oriented challenges related to the college majors referenced above.

Prerequisite: None

Length: Four Parts

General Mathematics

The goal of this course is to motivate students while helping them establish a strong foundation for success in developmental and consumer mathematics. The course leads students through basic mathematics and its applications, focusing on whole numbers, integers, decimals, and percentages. Students make sense of the mathematics they encounter each day, including wages, banking, interest, credit, and consumer costs. At the end of this course, students have a knowledge and appreciation for mathematics and problem-solving that prepares them for the future.

Prerequisite: None

Length: Four Parts

Geometry

Through real-world examples and problems, this course encourages students to see how geometry is useful in everyday life. The course focuses on parallel lines, perpendicular lines, triangles, circles, polygons, area, volume, similarity, trigonometry, geometric reasoning, and proofs. This course also highlights building critical thinking skills and problem-solving techniques required to help students grasp geometric concepts. By the end of this course, students have knowledge of and appreciation for geometry and problem-solving that prepares them for future mathematics courses.

Prerequisite: Algebra I

Length: Four Parts

Required Materials: Graphing Calculator

Integrated Mathematics 1

What are the differences between linear and exponential relationships? What are the components of mathematical expressions? What happens when one value in a data set is vastly different from the rest of the data? Students extend their understanding of linear relationships by contrasting them with exponential models and modeling linear data. As they create equations and inequalities in one or more variables, students represent the constraints of these expressions and rearrange the equations to solve for particular variables. In their comprehensive study of functions, students focus on notation, domain and range, and sequences. They also interpret the key features of the graph of a function, and build new functions or use existing functions to model relationships between quantities. Using their knowledge of relationships, students construct and compare linear, quadratic, and exponential models and use these models to solve various problems. Students learn that solving equations is a reasoning process, and are asked to explain their reasoning in solving them. As they explore descriptive statistics, students compare measures of center and spread and determine the most appropriate ways to represent data. Students also identify and interpret outliers in a data set. Finally, they prove simple geometric theorems algebraically.

Prerequisite: None

Length: Four Parts

Required Materials: Graphing Calculator

Integrated Mathematics 2

Mathematics II focuses on quadratic expressions, equations, and functions and compares their characteristics and behavior to previously learned linear and exponential relationships. The course covers real and complex numbers to give students the background they need to solve all forms of quadratic equations. Students explore the structure of expressions and rewrite them to highlight pieces of the relationship. Creating and solving equations and inequalities leads to solving systems of equations involving quadratic or exponential equations. Students compute and interpret theoretical and experimental probabilities, making informed decisions as they apply their knowledge of probability. Similarity transformations give students another perspective on similarity and allow them to prove related theorems. Students prove and use geometric theorems and learn about right triangles and their related trigonometry. They then move to theorems of circles and study ways to find arc lengths and areas of sectors, and to write equations for circles and parabolas. Finally, students examine area, circumference, and volume formulas for different geometric forms.

Prerequisite: Integrated Mathematics I

Length: Four Parts

Required Materials: Graphing Calculator

Integrated Mathematics 3

Mathematics III challenges students to gather and apply all of the concepts they have learned in previous courses. Students apply their knowledge of probability and statistics to both given data and data they collect through sample surveys, experiments, and simulations. Students look at polynomials and operations on them, examining the relationship between zeros and factors of polynomials, and use polynomial identities to solve various problems. Students learn that the arithmetic of rational expressions follows the same rules as arithmetic with rational numbers. Students deepen their understanding of trigonometry as they develop and apply the laws of sines and cosines to find missing measures of right and other triangles, determine how many triangles can be formed from a set of side measures, and use the unit circle and model periodic phenomena using trigonometric functions. Pulling together all they have learned about function families, students analyze functions, build functions to model relationships, and build new functions from existing functions. They can also construct and compare linear, quadratic, and exponential models; use geometric shapes, their measures, and their properties to describe objects; and apply geometric concepts in modeling situations.

Prerequisite: Integrated Mathematics II

Length: Four Parts

Required Materials: Graphing Calculator

Integrated Mathematics 4

Mathematics IV is a culmination of all the math concepts students have learned up to this point. In this capstone course, students perform operations with and find conjugates of complex numbers and represent them on the complex plane. Work with vectors includes recognizing the magnitude and direction of vectors and performing operations on vectors. Students also represent and manipulate data in and perform operations on matrices, applying the knowledge they gain as they represent and solve systems of linear equations. Students then analyze linear and exponential functions to show intercepts and end behavior, and delve into trigonometric functions showing period, midline, and amplitude. The course then moves to inverse functions, in which students find inverse functions and produce invertible functions from noninvertible functions by limiting the domain. Special triangles form the basis for students to geometrically determine values for sine, cosine, and tangent. Students also learn how to prove and utilize the addition and subtraction formulas for sine, cosine, and tangent and derive the equations of ellipses and hyperbolas. Cavalieri's principle is used to explain the

formulas for the volume of a sphere and other solid figures. Finally, students calculate expected values and employ them to solve problems, and use probability to evaluate outcomes of decisions.

Prerequisite: Integrated Mathematics III

Length: Four Parts

Pre-Algebra

Pre-Algebra helps students make a successful transition from arithmetic to algebra by focusing on basic concepts of arithmetic and the applications of mathematics. Students learn about integers, fractions, decimals, expressions, equations, ratios, proportions and percentages, inequalities, graphing, probability and statistics, and geometry. The course highlights the math skills needed to be successful in everyday life and prepares students for future mathematics courses.

Prerequisite: None

Length: Four Parts

Pre-Calculus

Pre-Calculus helps students gain the knowledge they need for success in calculus and other high school math courses. The course focuses on linear, rational, polynomial, exponential, and logarithmic functions; systems of equations; systems of inequalities; matrices; trigonometry; series; sequence; probability; vectors; and analytical geometry. Throughout the course, students work to improve their critical-thinking skills and problem-solving techniques. By the end of this course, students gain knowledge of and appreciation for calculus and its applications.

Prerequisite: Algebra II

Length: Four Parts

Required Materials: Graphing Calculator

Probability

In this course, students take a comprehensive and engaging look at the field of probability. They begin by learning the basic terms, types, theories and rules of probability. Next, the course covers random outcomes and normal distributions, as well as binomial probabilities. Finally, students learn about geometric probability, sampling distribution, how to understand populations, and the central limit theorem. By the end of this course, students gain a knowledge of and appreciation for the field of probability and how it is used in everyday life.

Prerequisite: None

Length: One Part

Required Materials: Graphing Calculator

SAT® Mathematics

This course helps students prepare for the mathematics portion of the SAT® by equipping them with the knowledge and strategies needed to succeed. Students learn about basic mathematical theories and operations, including rational numbers, integers, methods to solve counting problems, and the characteristics of sequences and series of numbers. Students then learn how to use algebra for solving problems, including polynomial functions, linear equations and inequalities, and variation. The final unit covers geometric shapes and how to calculate the area and perimeter of polygons and the circumference of circles. Students also learn how to solve for missing angles and sides of triangles, and understand lines, similar figures, and ratios.

Prerequisite: None

Length: One Part

Statistics

This course opens students' eyes to the many uses of statistics in the real world—from sports and the weather to health and politics. Students learn basic concepts, how to use graphs to represent data, and ways to analyze data. They explore statistical relationships, including the use of correlations, residuals and residual plots, and scatter plots. Finally, students learn how to model nonlinear relationships using exponential and logarithmic functions and how to design a sample to produce the correct type of data (observational vs. experimental). By the end of this course, students gain a knowledge of and appreciation for the field of statistics and its application in the real world.

Prerequisite: None

Length: One Part

Trigonometry

This course explores trigonometric functions and practical applications of trigonometry, such as solving real-life problems through engineering, physics, construction, and design. Students investigate graphs, linear functions, quadratic functions, trigonometric functions, analytical trigonometry, analytical geometry, vectors, and advanced functions. Students develop critical-thinking skills and problem-solving techniques to

help them succeed in understanding and applying trigonometric principles. By the end of this course, students gain knowledge of and appreciation for trigonometry and problem-solving that will prepare them for future mathematics courses.

Prerequisite: Algebra II

Length: Two Parts

Required Materials: Graphing Calculator

Science

Anatomy and Physiology

Why is the human body so complex? How do all the different structures of the body work together? In Anatomy and Physiology, students survey the different systems of the human body, with an emphasis on the relationship between structure and function. The course begins by teaching the language of anatomy and familiarizing students with the building blocks of the human body: cells and tissues that combine to create the complex organs and support structures of the body. Students get to know their bodies inside and out, from the skin that covers and protects the entire body to the skeleton and the attached muscles that provide support and create movement. Moving deeper inside, students explore the cardiovascular, respiratory, urinary, and digestive systems, which work together to supply the body with nutrients and rid it of wastes. Students also learn how the nervous and endocrine systems respond to the environment and maintain a state of balance. Students study the reproductive system as they follow the development of a human from a single-celled zygote to a mature adult. Interwoven throughout many lessons is information about genetic diseases, dysfunctions, and ailments such as diabetes, HIV, and arthritis. By the end of this course, students will feel as if they have read the owner's manual for their bodies.

Prerequisite: Biology

Length: Four Parts

Astronomy

In this course, students take a fascinating journey through the cosmos and learn basic concepts in the study of astronomy. The course begins with the celestial objects closest to home, scanning the solar system to provide students with an overview of the planets, moons, asteroids, and comets that revolve around the Sun. The course then moves beyond the solar system to cover the characteristics of our galaxy – the Milky Way. Students are amazed to learn the sheer size of this system and of other galaxies nearby, and about the formation and death of stars, supernovas, black holes, and even theoretical wormholes. Finally, the course reaches to the edges of time and space to investigate the properties of the universe as a whole, when students learn about theories explaining the very beginnings of existence and the expansion of the universe. Students also learn about Einstein's theory of relativity, time travel, and the search for extra-solar planets.

Prerequisite: None

Length: One Part

Biology

Biology is the study of life. In this course, students will study life's processes, looking at organisms from tiny single-celled organisms to large multicellular organisms. Students will also explore the ways organisms interact with one another and their environments. In addition, they will examine how traits are passed down through generations and how the traits of a species can change over time. The project component of this course will allow students to explore biological concepts in the context of real-world examples and issues.

Prerequisite: None

Length: Four Parts

Biotechnology

This course provides students with a comprehensive and engaging look at the field of biotechnology. Students explore the history of biotechnology and advances in the field, as well as basic information about biotechnology laboratories and careers. Students learn about chemistry and the units of measurement used in biotechnology, and the basic biology of the cell, DNA, RNA, and proteins. The course concludes with a survey of the applications of biotechnology in the research lab and in industry, including enzymes, techniques, and plasmids.

Prerequisite: None

Length: One Part

Chemistry

Chemistry is an important science that challenges students to apply their studies in previous sciences to new theories, models, and problems. The course begins with a discussion of the history and importance of chemical principles; moves through the various models of the atom and chemical reactions; explores relationships among liquids, gases, and solids; and investigates the role of energy in these relationships. The course ends with a unit on organic chemistry, a branch of the science that focuses on the molecules that are important to living things. Lab activities throughout the course reinforce the material and provide an opportunity for students to apply their knowledge through hands-on experiments and activities.

Prerequisite: Algebra I

Length: Four Parts

Earth Science

Earth Science is the combined study of how geology, physics, chemistry, and biology impact the universe; of the Earth's internal processes; and the structure and relationships of the natural world. In this interactive and engaging course, students study air, water, and physical processes that shape the physical world, and how human civilization has impacted the balance of nature. Students learn about the modern science behind topics such as continental drift, fossil dating, the cause of the seasons, natural disasters, ocean ecosystems, and alternative energy sources. At the end of this course, students have an understanding of and appreciation for earth science, and a solid foundation for future science studies.

Prerequisite: None

Length: Four Parts

Environmental Science

Environmental Science, sometimes referred to as Ecology, is the study of the relationships and interdependence of organisms and their connection to the nonliving, or abiotic, factors in the natural world. This course provides students with a profile of the living relationships, abiotic factors, human influences, and current state of Earth's ecosystems. The course begins with a review of science as a process and the general components of Earth's structure that impact life. It then progresses through a study of the living groups and their relationships to one another, focusing on the balance achieved by nature through these relationships. The course explores populations and provides examples of unchecked growth and rapid extinction in the context of their effect on ecosystems. The course dedicates a unit to aquatic ecosystems and organisms, and the results of human impact. After covering the influence of energy extraction, production, and use, the course ends by examining the positive influence humans can have on the environment through conservation and sound management practices.

Prerequisite: None

Length: Two Parts

Epidemiology

Epidemiologists investigate the causes of disease and other public health problems in an effort to prevent them from spreading. This course introduces students to the field of epidemiology, including the basic concepts related to infectious disease, specializations in epidemiology, and study design. Students learn about the specific parts of an epidemiology study and why they are important, including types of sampling, selection bias, standardization, confidence intervals, and evidence-based research.

Prerequisite: None

Length: One Part

Forensics

This engaging course introduces students to the field of forensics through a comprehensive look at related careers, laboratories, crime scene processing, evidence, and the impact of media on criminal investigations and trials. Students learn about specific techniques used in crime scene investigations, including autopsy, fingerprint analysis, DNA fingerprinting, and other types of evidence and analysis important to solving crimes. At the end of the course, students are introduced to a variety of specialized forensic sciences, analyze specific case studies, and learn about the Innocence Project and Freedom Project.

Prerequisite: None

Length: One Part

Genetics

Through this introduction to the field of genetics, students learn about the theories of Darwin and Wallace; the concepts of adaptation, genotype, and phenotype; and basic concepts related to cells, DNA, and RNA. Students study Gregor Mendel's pioneering work in genetic variation, and the basic concepts that have been developed since. Finally, students explore applications of genetics, including metagenomics, genetically modified organisms, DNA technologies, genetic testing, and other clinical and nonclinical applications of genetics.

Prerequisite: None

Length: One Part

Introduction to Technological Sciences

In this course, students learn about three main fields of technological science: engineering, biotechnology, and information technology. The first unit of the course surveys 15 distinct sub-fields of engineering, exploring the science background, real-world applications, and career opportunities in fields including aerospace, nuclear, and software engineering. In the second unit, students study cutting-edge biotechnology topics such as gene therapy, bioengineering crops, and biodegradation. The final unit focuses on the study of informational technology, covering computer networking, data storage, and data encryption for secure communications.

Prerequisite: None

Length: One Part

Life Science

This survey of the biological sciences introduces students to the structure and function of living things and the natural relationships that exist on Earth. The course begins with the definition of life and a discussion of how living things are classified and organized by scientists. Students then work through material that presents the molecular building blocks of organisms, both microscopic and macroscopic views of life, the diversity and universality of species, and the characteristics of various groups of life. The course culminates with a unit on evolution, asking students to apply what they learned about the natural world to the complex relationships and environmental factors that have shaped the ever-changing species sharing the world today.

Prerequisite: None

Length: Two Parts

Natural Disasters

Around the globe, natural disasters are a seemingly daily occurrence. This course provides an overview of the different types of catastrophic forces of nature and their impact on the populations that they strike. The course gives students a greater understanding of the causes and effects of natural disasters; students also investigate what can be done to prevent such disasters. The first unit covers land-based events, detailing how scientists predict and react to avalanches, earthquakes, volcanic eruptions, mudslides, and fires. The second unit focuses on catastrophic events that begin in the ocean and atmosphere, describing the impact of flooding, hurricanes, blizzards, and droughts. In the third unit, students learn how disease spreads and how quickly it can impact the world's population. The final unit looks skyward for potential catastrophic impacts from comets and asteroids.

Prerequisite: None

Length: One Part

Physical Science

Physical Science is an interactive and engaging course that covers the sciences of chemistry and physics. The course begins with a unit on the nature of science and a review of measurement and its importance. The course proceeds with the study of chemical principles, exposing students to topics such as the properties of matter, the structure of the atom, the formation of bonds, and the properties of solutions. The course then moves to the science of physics, describing the topics of motion, force, work, and energy. Students apply their knowledge of these topics through problems, explanations, graphs and virtual lab activities.

Prerequisite: None

Length: Four Parts

Physics

This course is designed to provide students with an overview of traditional physics and the latest, most modern research in the field today. Beginning with Newtonian mechanics, students learn that every object is acted upon by multiple and predictable forces. The course moves on to investigate the laws of thermodynamics, covering fluid mechanics and the relationships between matter and energy. The course also explores the various models used to explain and apply the universal forces of electricity and magnetism. Students learn the characteristics of waves and the basics of optics before the final set of lessons on atomic physics. Here, students review the characteristics of the atom and its elemental particles, and apply their knowledge to modern physics.

Prerequisite: Algebra II

Length: Four Parts

Science of Computing

This course is a survey of the past, present, and future of computer technology. Students explore fascinating and enlightening topics, such as how Stonehenge may actually have been used as a type of computer, and how inventions such as the abacus and the microprocessor have made today's technology possible. Students also learn about the science behind the hardware and software used today. Topics like algorithms, operating systems, and networks are described in detail and placed into context as tools for human innovation. Finally, the course looks to the

future, introducing students to foreseeable improvements to current technology and visionary breakthroughs like artificial intelligence, quantum security, and biological processors.

Prerequisite: None

Length: One Part

Sports Medicine

In this course, students explore how to keep “the human machine” in optimal condition. They learn about various aspects of sports medicine, including careers, basic concepts, and techniques. Students also learn about sports injuries and how they are treated so athletes can continue to compete. At the end of this course, students have a knowledge of and appreciation for the field of sports medicine and its applications.

Prerequisite: None

Length: One Part

Sports Science

Modern-day sports and the world-class athletes who excel at them take center stage in this journey through sports science. This course provides students with a survey of the impact of physics, biomechanics, and physiology on 14 modern sports. The first unit describes the role physics plays in a variety of sports, from the aerodynamics involved in auto racing to the force behind a boxer’s right hook. The next unit investigates the biomechanics of these sports, discussing concepts like the contortion of a gymnast’s body and the cause of tennis elbow. The last unit focuses on the limits of the human body, describing the energy used by cyclists during a mountain climb through the Alps and the reaction time required to hit a fastball traveling at 90 miles per hour. Overall, the course presents engaging information that will forever change how students perceive world-class athletes and competition.

Prerequisite: None

Length: One Part

Stem Cells

In this course, the diverse and rapidly changing field of stem cell research comes alive for students. Students learn about the different types of stem cells, how stem cells were discovered, their importance to research, and the goals, challenges, and controversies in the field. Students explore human and mouse embryonic stem cells and a variety of stem cells found in different parts of the body, as well as the potential clinical applications of these cells to human medicine. Finally, students study stem cell research models.

Prerequisite: None

Length: One Part

Superstars of Science

Superstars of Science helps students appreciate the accomplishments and impact of the most influential scientists upon today’s society, from scientists who lived in ancient Greece to those who are still alive and working today. The timeline structure allows students to see how science is cumulative in nature and how the discoveries and inventions of every scientist are influenced by past breakthroughs. It is commonly said that every great scientist stands on the shoulders of those in the past; this course explores that concept. The biography of each scientist, one per lesson, includes not only their contributions to their field, but the context of their work at the time and the world’s reaction to their groundbreaking ideas.

Prerequisite: None

Length: One Part

Social Studies

American History

This course takes students on a journey through the key events that have shaped America as a nation, from the end of the Civil War in 1865 to the height of the Cold War in 1980. The journey begins with the Reconstruction, a period of great transition and opportunity to heal a broken nation. Students witness the great migration westward and explore how the Industrial Revolution and waves of immigration fueled the flames of the American spirit today. The course details the challenges America faced and how equality was elusive for populations of American Indians, African Americans, immigrants, and women. Students learn how the core values of the founding fathers eventually prevailed and led to the Women’s Suffrage and Civil Rights Movements. The course closely examines the impact of war, with units covering the role of the United

States in World War I, World War II, the Korean War, and the Vietnam War. Throughout their journey, students encounter the great political, industrial, military, and human rights leaders who shaped America into a beacon of hope.

Prerequisite: None

Length: Four Parts

Early American History

This course provides students with a comprehensive and engaging look at early American history from the impact of the early Spanish explorers through the Civil War. Students learn about key events of European exploration and colonization of the Americas. Students learn about the establishment of the United States as an independent country, the importance of the US Constitution, and the impact of the Constitution on the continued development of the country. At the completion of this course, students have both a knowledge of and appreciation for the early history of the United States.

Prerequisite: None

Length: One Part

Early World History

Starting at the dawn of civilization and arriving at the doorstep of the Renaissance, Early World History introduces students to the major events that laid the foundations of the modern world. This course exposes students to the development of the world's early civilizations and the cultures that created them. Students experience the rituals of the Aztecs, the might of the Roman Legions, and the building of the Great Wall of China. From these ancient beginnings, students trace the development of empires, the emergence of the world's major religions, and the mechanisms of trade and conflict that brought cultures together. Thematically, the course focuses on how empires have interacted to spread goods, ideas, and technological innovations such as silk and gunpowder. The course traces major events from ancient Mesopotamia through the Black Death of the fourteenth century, preparing students to explore more recent world history in future courses.

Prerequisite: None

Length: One Part

Macroeconomics

In this course students study macroeconomics, which deals with the economies of nations and regions. Students will learn how these economies function and measure up against one another by exploring concepts including gross domestic product (GDP), unemployment rates, and price indices. At the end of this course, students will be able to understand the world economy and recognize the events and people who have contributed to our understanding of macroeconomics.

Prerequisite: None

Length: Two Parts

Microeconomics

In Microeconomics, students learn about the basic structure of economics and how it affects world events and people's everyday lives. Upon completing this course, students have a better understanding of personal finance, the role and process of taxation, and the risks and rewards of investment. The course discusses the need for economic systems, examines the concepts of supply and demand and consumer theory, and evaluates past and present occupation trends. Students compare the mixed economies of various nations; learn about traditional, command, and market economies; and examine the role of government in regulating the economy.

Prerequisite: None

Length: Two Parts

Psychology

In this course students learn how their senses, perceptions, emotions, and intelligence influence the way they think, feel, and learn. In this course, students learn about the field of psychology, including the concepts and tools used to assess intelligence, sensation and perception, memory, motivation and emotion, and learning. At the end of this course, students gain both knowledge of and appreciation for psychology and how it affects everyone.

Prerequisite: None

Length: Two Parts

Sociology

The field of sociology explores the development, dynamics, and structure of societies, and society's connections to human behavior. Sociology examines the ways in which groups, organizations, communities, social categories (such as class, sex, age, or race), and various social institutions (such as kinship, economic, political, or religious) affect human attitudes, actions, and opportunities. In this course, students learn

about the concepts and tools used to understand individuality, social structure, inequality, family structure, education, economics, politics, and social change.

Prerequisite: None

Length: Two Parts

US Government

US Government focuses on the purpose and responsibilities of government, as well as the interactions between the government and the governed. As students progress through the course, they will uncover the history of the American system of government, starting with the establishment of the country as a democracy during the eighteenth century. The course explores the relationship between the political parties and lobbyists, as well as the process of monitoring and funding federal elections. Students will come to understand the roles of state and local governments and their impact on their daily lives. At the end of this course, students will have a knowledge of and appreciation for the workings and history of the US government and its impact on American society. The project component of US Government will allow students to apply their skills to become informed and active citizens of the United States.

Prerequisite: None

Length: Four Parts

World Geography

This course explores the world's geographical divisions and the differences between Earth and the other planets in our solar system. In addition to Earth's geographical divide, the course explores how the cultural divide between countries impacts international relations. Through the study of geography, students analyze energy usage and explore ways to make the most of our planet without abusing its resources. The study of world geography through historical, cultural, physical, and economic lenses offers students a different perspective and understanding of our world.

Prerequisite: None

Length: Four Parts

World History

World History takes students on a journey through the events that have shaped the modern world, and the leaders who changed the course of history. The material is organized sequentially, exploring history from 1400 CE to the present day. Topics covered include the Renaissance, the French Revolution, the Industrial Revolution, and the World Wars. At the end of this course, students have an appreciation for the relationship between past events and the characteristics of the present day.

Prerequisite: None

Length: Four Parts

Electives

Advanced Music Theory

In this course, students with more experience in playing an instrument or singing will be immersed in a detailed study of the structure of music for both composition and performance. The course is designed to provide a comprehensive and engaging look at musical notation and tendencies for tonal harmony. Students learn about various aspects of music theory, including music written on multiple lines or parts, in multiple clefs, and in challenging key and time signatures. Students use their command of 'functional harmony' to not only provide Roman numeral analysis for a wide range of musical examples but will also be able to enlist new skills to re-harmonize and transpose melodies and accompaniments. At the completion of this course, students will have mastered challenging compositional concepts and skills and have gained a deeper knowledge of and for music theory.

Prerequisite: None

Length: Two parts

Anthropology I: Uncovering Human Mysteries

The aim of anthropology is to use a broad approach to gain an understanding of our past, present and future, and in addition address the problems humans face in biological, social and cultural life. This course will explore the evolution, similarity and diversity of humankind through time. It will look at how we have evolved from a biologically and culturally weak species to one that has the ability to cause catastrophic change. Exciting online video journeys to different areas of the anthropological world are just one of the powerful learning tools utilized in this course.

Prerequisite: None

Length: Two parts

Anthropology II: More Human Mysteries Uncovered

Anthropology has helped us better understand cultures around the world and through different time period. This course continues the study of global cultures and the ways that humans have made sense of their world. We will examine some of the ways that cultures have understood and gave meaning to different stages of life and death. The course will also examine the creation of art within cultures and examine how cultures evolve and change over time. Finally, we will apply the concepts and insights learned from the study of anthropology to several cultures found in the world today.

Prerequisite: Anthropology I, or equivalent

Length: Two parts

Archaeology: Detectives of the Past

George Santayana once said, "Those who cannot remember the past are condemned to repeat it." The field of archeology helps us to better understand the events and societies of the past that have helped to shape our modern world. This course focuses on this techniques, methods, and theories that guide the study of the past. Students will learn how archaeological research is conducted and interpreted, as well as how artefacts are located and preserved. Finally, students will learn about the relationship of material items to culture and what we can learn about past societies from these items.

Prerequisite: None

Length: Two parts

Art in World Cultures

Who is the greatest artist of all time? Is it Leonardo daVinci? Claude Monet? Michelangelo? Pablo Picasso? Is the greatest artist of all time someone whose name has been lost to history? You will learn about some of the greatest artists while also creating art of your own, including digital art. We will explore the basic principles and elements of art, learn how to critique art, and examine some of the traditional art of the Americas, Africa, and Oceania in addition to the development of Western art.

Prerequisite: None

Length: Two parts

Notes: Students will have to create an art piece (either a drawing or painting which also requires students to have unlisted supplies) and then photograph the piece and upload it as an assignment.

Astronomy: Exploring the Universe

Why do stars twinkle? Is it possible to fall into a black hole? Will the sun ever stop shining? Since the first glimpse of the night sky, humans have been fascinated with the stars, planets, and universe that surrounds us. This course will introduce students to the study of astronomy, including its history and development, basic scientific laws of motion and gravity, the concepts of modern astronomy, and the methods used by astronomers to learn more about the universe. Additional topics include the solar system, the Milky Way and other galaxies, and the sun and stars. Using online tools, students will examine the life cycle of stars, the properties of planets, and the exploration of space.

Prerequisite: None

Length: Two parts

Biotech: Unlocking Nature's Secret

In today's world, biotechnology helps us grow food, fight diseases, and create alternative fuels. In this course, students will explore the science behind biotechnology and how this science is being used to solve medical and environmental problems.

Prerequisite: None

Length: Two parts

Career Explorations

How do you decide what type of career to pursue? What steps can you take to get a job in your desired field? Career Explorations provides students with employment data and career resources to analyze job opportunities and prepare for their careers. Students learn about careers and the relationships between education, career, and earning potential. Students then match their interests with career opportunities and build a career map. The course defines essential professional skills such as communication, teamwork, organization, and leadership. Lessons also include explanations of personal attributes including flexibility, responsibility, and dependability. At the end of the course, students explore networking, résumés, using social media, and how to apply for jobs and prepare for interviews.

Prerequisite: None

Length: One Part

Careers in Criminal Justice: Criminal Justice Operations 1

The criminal justice system offers a wide range of career opportunities. In this course, students will explore different areas of the criminal justice system, including the trial process, the juvenile justice system, and the correctional system.

Prerequisite: None

Length: Two parts

Chemical Engineering

This course offers students a comprehensive and engaging look at the field of chemical engineering. Students learn the basic concepts used in chemical engineering, including systems of units, the periodic table of the elements, molecules, compounds, bonding, temperature, and pressure. Students explore chemical systems and reactions, including stoichiometry, open and closed systems, multiple-component systems, and chemical reactions. Finally, students study gases and gas laws, pressure, systems, energy, and enthalpy. At the end of this course, students have gained a knowledge of and appreciation for chemical engineering and its growing importance in today's society.

Prerequisite: None

Length: One Part

Computer Engineering

In this course, students learn the basic concepts used in computer engineering, including the basic parts of a computer, how information is quantified, organized, and used, and different types of information. Students learn about information compression and information theory, the different types of coding, the theory of sound, and how sound is converted into a signal. Finally, students learn about applications of computer engineering, including digital telephones, real-time data transmission, band limits, different types of systems, and information security.

Prerequisite: None

Length: One Part

Cosmetology: Cutting Edge Styles

Students will explore career options in the field of cosmetology. Research into some of the common techniques used in caring for hair, nails, and skin in salons, spas, and other cosmetology-related businesses will also be presented.

Prerequisite: None

Length: Two parts

Creative Writing

For many hundreds of years, literature has been one of the most important human art forms. It allows us to give voice to our emotions, create imaginary worlds, express ideas, and escape the confines of material reality. Through creative writing, we can come to understand ourselves and our world a little bit better. This course provides students with a solid grounding in the writing process, from finding inspiration to building a basic story to using complicated literary techniques and creating strange hybrid forms of poetic prose and prose poetry. By the end of this course, students will learn how to discover their creative thoughts and turn those ideas into fully realized pieces of creative writing.

Prerequisite: None

Length: Two parts

Criminology: Inside the Criminal Mind

In today's world, crime and deviant behavior rank at or near the top of many people's concerns. In this course, we will study the field of Criminology –the study of crime. We will look at possible explanations for crime from the standpoint of psychological, biological and sociological perspectives, explore the categories and social consequences of crime, and investigate how the criminal justice system handles not only criminals, but also their misdeeds. Why do some individuals commit crimes why others do not? What aspects in our culture and society promote

crime and deviance? Why are different punishments given for the same crime? What factors...from arrest to punishment...help shape the criminal case process?

Prerequisite: None

Length: Two parts

Digital Photography I: Creating Images with Impact!

Have you ever wondered how photographers take such great pictures? Have you tried to take photographs and wondered why they didn't seem to capture that moment that you saw with your eyes? The Digital Photography I course focuses on the basics of photography, including building an understanding of aperture, shutter speed, lighting, and composition. Students will be introduced to the history of photography and basic camera functions. Students will use the basic techniques of composition and camera functions to build a portfolio of images, capturing people, landscapes, close-up, and action photographs.

Prerequisite: None

Length: Two parts

Required Materials: A digital or film camera capable of manual aperture and shutter speed settings. If using a digital camera, software to transfer and view photos on a PC. A printer is optional. If using a film camera, students will need to purchase color and black and white film and have the film processed into digital files or prints.

Digital Photography II: Discovering Your Creative Potential

In today's world, photographs are all around us, including in advertisements, on websites, and hung on our walls as art. Many of the images that we see have been created by professional photographers. In this course, we will examine various aspects of professional photography, including the ethics of the profession, and examine some of the areas that professional photographers may choose to specialize in, such as wedding photography and product photography. We will also learn more about some of the most respected professional photographers in history and we will learn how to critique photographs in order to better understand what creates an eye catching photograph.

Prerequisite: Digital Photography I

Length: Two parts

Required Materials: A digital or film camera capable of manual aperture and shutter speed settings. If using a digital camera, software to transfer and view photos on a PC. A printer is optional. If using a film camera, students will need to purchase color and black and white film and have the film processed into digital files or prints.

Early Childhood Education 1

Want to have an impact on the most important years of human development? Students will learn how to create fun and educational environments for children, how to keep the environment safe for children, and how to encourage the health and wellbeing of infants, toddlers, and school-aged children.

Prerequisite: None

Length: Two parts

Electrical Engineering

In this introduction to electrical engineering, students learn about basic electrical engineering concepts including an introduction to electricity, circuits, energy, work, power, the components of circuits, and some simple applications of electricity. Students explore basic circuit concepts, including series and parallel circuits, laws of electricity, and how circuits are used. At the end of this course, students have a knowledge of and appreciation for the field of electrical engineering and its many applications.

Prerequisite: Algebra I

Length: One Part

Entrepreneurship I: Starting Your Business

Do you dream of owning your own business? This course can give you a head start in learning about what you'll need to own and operate a successful business. Students will explore creating a business plan, financing a business, and pricing products and services.

Prerequisite: None

Length: Four parts

Fashion and Interior Design

Do you have a flair for fashion? Are you constantly redecorating your room? If so, the design industry might just be for you! In this course, you'll explore what it is like to work in the industry by exploring career possibilities and the background that you need to pursue them. Get ready to try your hand at designing as you learn the basics of color and design then test your skills through hands-on projects. In addition, you'll develop the essential communication skills that build success in any business. By the end of the course, you'll be well on your way to developing the portfolio you need to get your stylishly clad foot in the door of this exciting field.

Prerequisite: None

Length: Two parts

Required Materials: Clothing items, sewing machine, digital camera, thread, fabric, clothing patterns, measuring tape, sketchpad, paper, scissors

Forensic Science I: Secrets of the Dead

Fingerprints. Blood spatter. DNA analysis. The world of law enforcement is increasingly making use of techniques and knowledge from the sciences to better understand the crimes that are committed and to catch the individuals responsible for those crimes. Forensic science applies scientific knowledge to the criminal justice system. This course focuses on some of the techniques and practices used by forensic scientists during a crime scene investigation (CSI). Starting with how clues and data are recorded and preserved, the student will follow evidence trails until the CSI goes to trial, examining how various elements of the crime scene are analyzed and processed.

Prerequisite: None

Length: Two parts

Forensic Science II: More Secrets of the Dead

Although the crime scene represents the first step in solving crimes through forensic science, the crime laboratory plays a critical role in the analysis of evidence. This course focuses on the analysis of evidence and testing that takes place within this setting. We will examine some of the basic scientific principles and knowledge that guides forensic laboratory processes, such as those testing DNA, toxicology, and material analysis. Techniques such as microscopy, chromatography, odontology, entomology, mineralogy, and spectroscopy will be examined.

Prerequisite: Forensic Science I

Length: Two parts

Gothic Literature: Monster Stories

From vampires to ghosts, these frightening stories have influenced fiction writers since the 18th century. This course will focus on the major themes found in Gothic literature and demonstrate how the core writing drivers produce, for the reader, a thrilling psychological environment. Terror versus horror, the influence of the supernatural, and descriptions of the difference between good and evil are just a few of the themes presented. By the time students have completed this course, they will have gained an understanding of and an appreciation for the complex nature of dark fiction.

Prerequisite: None

Length: Two parts

Great Minds in Science: Ideas for a New Generation

Is there life on other planets? What extremes can the human body endure? Can we solve the problem of global warming? Today, scientists, explorers, and writers are working to answer all of these questions. Like Edison, Einstein, Curie, and Newton, the scientists of today are asking questions and working on problems that may revolutionize our lives and world. This course focuses on 10 of today's greatest scientific minds. Each unit takes an in-depth look at one of these individuals, and shows how their ideas may help to shape tomorrow's world.

Prerequisite: None

Length: Two parts

Health Science I: The Whole Individual

Will we ever find a cure for cancer? What treatments are best for conditions like diabetes and asthma? How are illnesses like meningitis, tuberculosis, and the measles identified and diagnosed? Health sciences provide the answers to questions such as these. In this course, students will be introduced to the various disciplines within the health sciences, including toxicology, clinical medicine, and biotechnology. They will explore the importance of diagnostics and research in the identification and treatment of diseases. The course presents information and terminology for the health sciences and examines the contributions of different health science areas.

Prerequisite: None

Length: Two parts

Health Science II: Patient Care and Medical Services

Health Science II is designed to further the student's understanding of the health care workplace, including patient and caregiver interactions and how various members of the health care team work together to create an ethical, functional, and compassionate environment for patients.

Prerequisite: Health Science I

Length: Two parts

Notes: Student will create a virtual map online or a drawing of health services in their area. If it is a drawing, student will have to take a photo of the drawing and upload it for credit.

History of the Holocaust

Holocaust education requires a comprehensive study of not only times, dates, and places, but also the motivation and ideology that allowed these events. In this course, students will study the history of anti-Semitism; the rise of the Nazi party; and the Holocaust, from its beginnings through liberation and the aftermath of the tragedy. The study of the Holocaust is a multi-disciplinary one, integrating world history, geography, American history, and civics. Through this in-depth, semester-long study of the Holocaust, high school students will gain an understanding of the ramifications of prejudice and indifference, the potential for government-supported terror, and they will get glimpses of kindness and humanity in the worst of times.

Prerequisite: None

Length: Two parts

Hospitality & Tourism: Traveling the Globe

With greater disposable income and more opportunities for business travel, people are traversing the globe in growing numbers. As a result, hospitality and tourism is one of the fastest growing industries in the world. This course will introduce students to the hospitality and tourism industry, including hotel and restaurant management, cruise ships, spas, resorts, theme parks, and other areas. Student will learn about key hospitality issues, the development and management of tourist locations, event planning, marketing, and environmental issues related to leisure and travel. The course also examines some current and future trends in the field.

Prerequisite: None

Length: Two parts

Human Geography: Our Global Identity

How do language, religion, and landscape affect the physical environment? How do geography, weather, and location affect customs and lifestyle? Students will explore the diverse ways in which people affect the world around them and how they are affected by their surroundings. Students will discover how ideas spread and cultures form, and learn how beliefs and architecture are part of a larger culture complex. In addition to introducing students to the field of Human

Geography, this course will teach students how to analyze humans and their environments.

Prerequisite: None

Length: Two parts

International Business: Global Commerce in the 21st Century

From geography to culture Global Business is an exciting topic in the business community today. This course is designed to help students develop the appreciation, knowledge, skills, and abilities needed to live and work in a global marketplace. It takes a global view on business, investigating why and how companies go international and are more interconnected. The course further provides students a conceptual tool by which to understand how economic, social, cultural, political and legal factors influence both domestic and cross-border business. Business structures, global entrepreneurship, business management, marketing, and the challenges of managing international organizations will all be explored in this course. Students will cultivate a mindfulness of how history, geography, language, cultural studies, research skills, and continuing education are important in both business activities and the 21st century.

Prerequisite: None

Length: Two parts

Internet Safety

Keeping yourself safe when you're using the Internet should be a high priority. Have you ever provided information to a website that you didn't know or trust? Do you know who is able to view the personal information that you post about yourself on social media sites? Have you ever shopped online? Heard of someone who has experienced identity theft? Are you able to determine the best places to acquire accurate, reliable information to use in a research paper? In Internet Safety, you'll learn how to keep yourself safe in these and many other situations that may arise online. You will learn how to think critically about what constitutes appropriate behavior online and expand the range of your online interactions. In the beginning of the course, you will identify safety precautions for online communication, learn about ways to share content responsibly, and discover how to keep your accounts safe from identity theft and viruses. The course addresses virtual citizenship, defines cyberbullying, and encourages you to consider the consequences of your online interactions. Lessons also address reporting online abuse, phishing, plagiarism, copyright, and fair use. The course ends by explaining how to recognize quality websites for research, safely use social networking sites, and buy and sell items online.

Prerequisite: None

Length: One Part

Introduction to AgriScience

In this course, students will learn more about the development and maintenance of agriculture, animal systems, natural resources, and other food sources. Students will also examine the relationship between agriculture and natural resources and the environment, health, politics, and world trade.

Prerequisite: None

Length: Two parts

Introduction to Culinary Arts

Food is all around us—we are dependent on it and we enjoy it. This course will give you the basic fundamentals to start working in the kitchen and gaining experience as you explore and establish your talents for cooking and preparing food in a creative and safe way. You will learn safety measures as well as enhance your knowledge of various types of foods and spices. If you enjoy hands-on learning and want to deepen your knowledge about culinary arts, this is a great course to start.

Prerequisite: None

Length: Two parts

Required Materials: Digital Camera or camera phone

Unit Three: medium sized skillet,, flat spatula, gas or electric range, 4 large flour tortillas, 106 oz. shredded cheddar cheese (2 cups), 1 cup sliced green chilies, 1 tbsp. vegetable oil, sour cream and/or guacamole for toppings (optional)

Unit Four: kitchen mixer, 7 egg whites, 2 tsp. vanilla, 1/4 tsp salt, 1 tsp. cream of tartar, 14 tbsp. sugar, food thermometer

Unit Six: medium-size frying pan, tongs, spoon, paper towel, knife, gas or electric range, 1 chicken breast and thigh with skin on, 6 tbsp. flour, 1 tsp. paprika, 2 oz. vegetable oil, salt and pepper to taste

Unit Seven: fresh shrimp, saucepan, gas or electric range

Unit Ten: table or flat surface, large plate, 1 small plate, 2 glasses, 2 spoons, 2 forks, 2 butter knives, 1 napkin

Unit Eleven: 1 medium size frying pan, 1 medium size bowl, 1-cup or 2-cup measuring cup, spatula, 1 9x13 casserole dish, gas or electric range, 8 slices of bread, cubed, 2 cups milk, 10 eggs, 1 lb. ground sausage, 1.5 cups shredded cheddar cheese, butter or cooking spray for greasing casserole dish

Unit Twelve: kitchen mixer with flat beater attachment, rubber spatula, spoon, baking tray lined with parchment paper, cling film (plastic wrap), 6 oz. brown sugar, 3.5 oz. butter, 4 tbsp. molasses, 1 egg, 13 oz. flour, 2 tsp. baking soda, 1/2 tsp. ground cloves, 1 tsp. cinnamon, 1/4 tsp. salt

Introduction to Manufacturing: Product Design & Innovation

Think about the last time you visited your favorite store. Have you ever wondered how the products you buy make it to the store shelves? Whether it's video games, clothing, or sports equipment, the goods we purchase must go through a manufacturing process before they can be marketed and sold. In this course, you'll learn about the types of manufacturing systems and processes used to create the products we buy every day. You'll also be introduced to the various career opportunities in the manufacturing industry including those for engineers, technicians, and supervisors. As a culminating project, you'll plan your own manufacturing process for a new product or invention! If you thought manufacturing was little more than mundane assembly lines, this course will show you just how exciting and fruitful the industry can be.

Prerequisite: None

Length: Two parts

Introduction to Office Applications

Microsoft Office applications are integral to both school and career. In this course, students learn the basics of the following Office Applications: Microsoft® Word, Excel®, Access®, and PowerPoint®. Students create, save, and customize Word documents in order to meet their own needs and the requirements of class projects and assignments. Students create and customize Excel workbooks to organize data. Students

produce an Access database and use it to store and track information. Finally, students design PowerPoint presentations for both school and personal use. Throughout this course, students use each application in detail and practice how to use the application in a variety of situations.

Prerequisite: None

Length: Four Parts

Introduction to Open Office Applications

Introduction to OpenOffice Applications teaches students about the OpenOffice environment, and how to use the OpenOffice.org™ suite of applications for word processing, spreadsheets, databases, and presentations. The course covers OpenOffice Writer, Calc, Base, and Impress. As students learn the basics of OpenOffice Writer, they create, save, and format documents, learn how to produce customized documents, and how include hyperlinks, graphics, and charts. Working with Calc, students create spreadsheets to manage, manipulate, and calculate data, and learn how to create formulas and filters to find the data applicable to a particular question or situation. With Base, students learn how to create professional-looking databases to manage data from many related spreadsheets. Learning to customize these databases prevents errors in data entry and shows relationships between different spreadsheets. Students then present their findings in multimedia presentations created with Impress. At the completion of this course, students have the tools to work with and present information in a variety of forms for professional, academic, and personal use.

Prerequisite: None

Length: Four Parts

Introduction to Social Media

Have a Facebook account? What about Twitter? Whether you've already dipped your toes in the waters of social media or are still standing on the shore wondering what to make of it all, learning how to interact on various social media platforms is crucial in order to survive and thrive in this age of digital communication. In this course, you'll learn the ins and outs of social media platforms such as Facebook, Twitter, Pinterest, Google+, and more. You'll also discover other types of social media you may not have been aware of and how to use them for your benefit—personally, academically, and eventually professionally as well. If you thought social media platforms were just a place to keep track of friends and share personal photos, this course will show you how to use these resources in much more powerful ways.

Prerequisite: None

Length: Two parts

Introduction to Women's Studies: A Personal Journey Through Film

This course, although looking specifically at the experiences of women, is not for girls only. If you are student interested in exploring the world through film and open minded enough to be interested in social change, this course is for you.

Prerequisite: None

Length: Two parts

Law & Order: Introduction to Legal Studies

Every society has laws that its citizens must follow. From traffic laws to regulations on how the government operates, laws help provide society with order and structure. Our lives are guided and regulated by our society's legal expectations. Consumer laws help protect us from faulty goods; criminal laws help to protect society from individuals who harm others; and family law handles the arrangements and issues that arise in areas like divorce and child custody. This course focuses on the creation and application of laws in various areas of society. By understanding the workings of our court system, as well as how laws are actually carried out, we become more informed and responsible citizens in our communities and of our nation.

Prerequisite: None

Length: Two parts

Life Skills

Life Skills is a comprehensive career-development course for high school students making the transition to life after high school. The course shows students the steps for choosing a career, conducting a job search, selecting the right college, applying to college, and getting financial aid. This course prepares young adults for a successful life after high school, from maintaining a healthy body and a safe home to finding and keeping a job. At the end of this course, students have a knowledge of and appreciation for these important life skills.

Prerequisite: None

Length: Two Parts

Mechanical Engineering

This course introduces students to the field of mechanical engineering and its many applications in the world today. Students learn basic mechanical engineering concepts, including systems of units, vectors, forces, moments, force systems, couples, and equilibrium problems. Students explore the methods of joints and sections, define centroids, explain distributed loads and center of mass and axes, and state the Pappus-Guldinus theorems. The course concludes with lessons on dry friction, beams, cables, load distribution, pressure, and potential energy. At the end of this course, students have a knowledge of and appreciation for the field of mechanical engineering and its importance in today's society.

Prerequisite: Algebra I

Length: One Part

Music Appreciation: The Enjoyment of Listening

Music is part of everyday lives and reflects the spirit of our human condition. To know and understand music, we distinguish and identify cultures on local and global levels. This course will provide students with an aesthetic and historical perspective of music, covering a variety of styles and developments from the Middle Ages through the Twentieth First Century. Students will acquire basic knowledge and listening skills, making future music experiences more informed and satisfying.

Prerequisite: None

Length: Two parts

Music Theory and Appreciation

Are you a beginning musician? Are you someone who once upon a time learned to play an instrument or sung in a chorus or church choir? Maybe you just enjoy watching YouTube videos and listening to your favorite songs. In Music Theory and Appreciation you will immerse yourself in the study of how music works. Students will develop their functional understanding of music through listening exercises, drawing and identifying notation, creating basic compositions, and analyzing music samples. In the second part of the course, students shift their focus to a more historical analysis of Western music. They survey the development of music beginning in ancient Greece and end with modern western music. Students learn to distinguish music from a vast collection of musical time periods, composers, and contrasting musical styles and genres. By the completion of this course, students have earned a strong foundational understanding of music, preparing them to learn how to play an instrument or continue to more advanced music studies.

Prerequisite: None

Length: Two parts

Mythology & Folklore: Legendary Tales

Mighty heroes. Angry gods and goddesses. Cunning animals. Since the first people gathered around fires, mythology and folklore has been used as a way to make sense of humankind and our world. Beginning with an overview of mythology and different kinds of folklore, students will journey with ancient heroes as they slay dragons and outwit gods, follow fearless warrior women into battle, and watch as clever monsters outwit those stronger than themselves. They will explore the universality and social significance of myths and folklore, and see how these are still used to shape society today.

Prerequisite: None

Length: Two parts

Peer Counseling

Helping people achieve their goals is one of the most rewarding of human experiences. Peer counselors help individuals reach their goals by offering them support, encouragement, and resource information. This course explains the role of a peer counselor, teaches the observation, listening, and empathic communication skills that counselors need, and provides basic training in conflict resolution, and group leadership. Not only will this course prepare you for working as a peer counselor, but the skills taught will enhance your ability to communicate effectively in your personal and work relationships.

Prerequisite: None

Length: Two parts

Personal and Family Finance

How do our personal financial habits affect our financial future? How can we make smart decisions with our money in the areas of saving, spending, and investing? This course introduces students to basic financial habits such as setting financial goals, budgeting, and creating financial plans. Students will learn more about topics such as taxation, financial institutions, credit, and money management. The course also addresses how occupations and educational choices can influence personal financial planning, and how individuals can protect themselves from identity theft.

Prerequisite: None

Length: Two parts

Personal Finance

Introduction to Personal Finance provides students with a foundation for understanding personal budgeting and long-term financial planning. Students compare and contrast types of financial institutions, learn how to open a bank account and reconcile a monthly bank statement, and understand the importance of establishing a savings account. Students explore investments, taxes, and debt, and complete activities to develop and balance a budget. Lessons also explain credit scores and suggest ways to maintain a healthy credit score. The course also looks to the future with information about long-term financial planning and planning for large expenditures such as houses, cars, and higher education.

Prerequisite: None

Length: One part

Personal Psychology I: The Road to Self-Discovery

Self-knowledge is the key to self-improvement! More than 800,000 high school students take psychology classes each year. Among the different reasons, there is usually the common theme of self discovery! Sample topics include the study of infancy, childhood, adolescence, perception and states of consciousness. Amazing online psychology experiments dealing with our own personal behavior are featured within this course.

Prerequisite: None

Length: Two parts

Personal Psychology II: Living in a Complex World

Enrich the quality of your life by learning to understand the actions of others! Topics include the study of memory, intelligence, emotion, health, stress and personality. This courses features exciting online psychology experiments involving the world around us.

Prerequisite: Personal Psychology I

Length: Two parts

Philosophy: The Big Picture

This course will take you on an exciting adventure that covers more than 2,500 years of history! Along the way, you'll run into some very strange characters. For example, you'll read about a man who hung out on street corners, barefoot and dirty, pestering everyone he met with questions. You'll learn about another eccentric who climbed inside a stove to think about whether he existed. Despite their odd behavior, these and other philosophers of the Western world are among the most brilliant and influential thinkers of all time. As you learn about these great thinkers, you'll come to see how and where many of the most fundamental ideas of Western Civilization originated. You'll also get a chance to ask yourself some of the same questions these great thinkers pondered. By the time you've "closed the book" on this course, you will better understand yourself and the world around you...from atoms to outer space...and everything in between.

Prerequisite: None

Length: Two parts

Public Speaking

The art of public speaking is one which underpins the very foundations of Western society. This course examines those foundations in both Aristotle and Cicero's views of rhetoric, and then traces those foundations into the modern world. Students will learn not just the theory, but also the practice of effective public speaking, including how to analyze the speeches of others, build a strong argument, and speak with confidence and flair. By the end of this course, students will know exactly what makes a truly successful speech and will be able to put that knowledge to practical use.

Prerequisite: None

Length: Two parts

Real World Parenting

What is the best way to care for children and teach them self-confidence and a sense of responsibility? Parenting involves more than having a child and providing food and shelter. Learn what to prepare for, what to expect, and what vital steps parents can take to create the best environment for their children. Parenting roles and responsibilities, nurturing and protective environments for children, positive parenting strategies, and effective communication in parent/child relationships are some of the topics covered in this course.

Prerequisite: None

Length: Two parts

Social Problems I: A World in Crisis

Students will become aware of the challenges faced by social groups, as well as learn about the complex relationship among societies, governments and the individual. Each unit is focused on a particular area of concern, often within a global context. Possible solutions at both the structural level as well as that of the individual will be examined. Students will not only learn more about how social problems affect them personally, but begin to develop the skills necessary to help make a difference in their own lives and communities, not to mention globally.

Prerequisite: None

Length: Two parts

Social Problems II: Crisis, Conflicts & Challenges

The Social Problems II course continues to examine timely social issues affecting individuals and societies around the globe. Students learn about the overall structure of the social problem as well as how it impacts their lives. Each unit focuses on a particular social problem, including racial discrimination, drug abuse, the loss of community, and urban sprawl, and discusses possible solutions at both individual and structural levels. For each issue, students examine the connections in the global arena involving societies, governments and the individual.

Prerequisite: None

Length: Two parts

Sociology I: The Study of Human Relationships

The world is becoming more complex. How do your beliefs, values and behavior affect the people around you and the world in which we live? Students will examine social problems in our increasingly connected world, and learn how human relationships can strongly influence and impact their lives. Exciting online video journeys to an array of areas in the sociological world are an important component of this relevant and engaging course.

Prerequisite: None

Length: Two parts

Sociology II: Your Social Life

Sociology is the study of people, social life and society. By developing a “sociological imagination” students will be able to examine how society itself shapes human action and beliefs...and how in turn these factors re-shape society itself! Fascinating online videos journeys will not only inform students, but motivate them to still seek more knowledge on their own.

Prerequisite: Sociology I

Length: Two parts

Sports and Entertainment Marketing

Have you ever wished to play sports professionally? Have you dreamed of one day becoming an agent for a celebrity entertainer? If you answered yes to either question, then believe it or not, you've been fantasizing about entering the exciting world of sports and entertainment marketing. Although this particular form of marketing bears some resemblance to traditional marketing, there are many differences as well—including a lot more glitz and glamour! In this course, you'll have the opportunity to explore basic marketing principles and delve deeper into the multi-billion dollar sports and entertainment marketing industry. You'll learn about how professional athletes, sports teams, and well known entertainers are marketed as commodities and how some of them become billionaires as a result. If you've ever wondered about how things work behind the scenes of a major sporting event such as the Super Bowl or even entertained the idea of playing a role in such an event, then this course will introduce you to the fundamentals of such a career.

Prerequisite: None

Length: Two parts

Theater, Cinema & Film Production

Lights! Camera! Action! This course will introduce students to the basics of film and theater productions. Students will learn about the basics of lighting, sound, wardrobe, and camerawork for both film and theater settings. The course also explores the history of film and theater and the influence that they have had on society. Students will analyze and critique three influential American films, Casablanca, Singin' in the Rain, and The Wizard of Oz.

Prerequisite: None

Length: Two parts

Notes: Student will have to record a video of their performance, making use of the suggestions and feedback offered by their family member or friend. Students performance should show an understanding of the monologue's meaning and the speakers position. Submit the video of performance as their lab activity.

The Lord of the Rings: An Exploration of the Films & Their Literary Influences

The Lord of the Rings is one of the most popular stories in the modern world. In this course, you will study the movie versions of J.R.R. Tolkien's novel and learn about the process of converting literature to film. You will explore fantasy literature as a genre and critique the three Lord of the Rings films.

Prerequisite: None

Length: Two parts

Veterinary Science: The Care of Animals

As animals play an increasingly important role in our lives, scientists have sought to learn more about their health and well-being. Taking a look at the pets that live in our homes, on our farms, and in zoos and wildlife sanctuaries, this course will examine some of the common diseases and treatments for domestic animals. Toxins, parasites, and infectious diseases impact not only the animals around us, but at times...we humans as well! Through veterinary medicine and science, the prevention and treatment of diseases and health issues is studied and applied.

Prerequisite: None

Length: Two parts

World Religions: Exploring Diversity

Throughout the ages, religions from around the world have shaped the political, social, and cultural aspects of societies. This course focuses on the major religions that have played a role in human history, including Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism, Shintoism, and Taoism. Students will trace the major developments in these religions and explore their relationships with social institutions and culture. The course will also discuss some of the similarities and differences among the major religions and examine the connections and influences they have.

Prerequisite: None

Length: Two parts

Health and Physical Education

Fitness

This Fitness course is all about the latest ways to lead an active, healthy life. The course provides up-to-date information to help students establish healthier lifestyles and a better understanding of the close relationship between physical activity, nutrition, and overall health. This course supports and encourages students to develop an individual optimum level of physical fitness, acquire knowledge of physical fitness concepts, and understand the importance of a healthy lifestyle. At the end of this course, students have a knowledge of and appreciation for fitness and its impact on everyone.

Prerequisite: None

Length: Two Parts

Health

This course is organized as a journey through health and wellness today. Today, health no longer means just the absence of illness; health also refers to the overall well-being of your body, your mind, and your relationships with others. The course shows students how to lead healthy lives, and includes such topics as disease, mental health, drug use, and reproductive health. At the end of this course, students have a knowledge of and appreciation for health and wellness and its impact on everyone.

Prerequisite: None

Length: Two Parts

Pennsylvania HS Physical Education

What does it mean to be healthy and fit? How can physical activity help an individual to become healthy and fit? This course allows students to become acquainted with different types of movements, and enables them to understand how they're used within different instances of physical activity, while working toward their own, personal, physical activity goals. The course will encourage students to reach out into the community for examples of physical activities, and try their luck with participating in these activities which will be used in an innovative, hands-on, assessment style. This course is personalized to the likes, dislikes, and performance of each individual student, and will encourage students to reflect on accomplishments and struggles as a method for improvement and success. On their journey, students will understand the connection between fitness and proper nutrition, and will get involved in group and team sports, as well as those that can be completed independently. How to practice good sportsmanship, methods used to help students with getting along with others, and different fitness components will also be addressed. The course touches upon health basics that affect physical activity, and address the sport science related principles that pertain. Creative "Show me" and "Tell me" assessments will require video and document submissions that test student's knowledge and understanding of the lessons, which will help them to make progress toward their current and future goals. The course closes by enabling students to take a look at their own personal accomplishments, as it is encouraged for them to keep a fitness log, and the relationship between the value of physical activity and lifelong fitness is explained.

Prerequisite: None

Length: Four Parts

World Languages

French I

French I is a comprehensive and engaging introduction to French language and culture. After mastering the French alphabet and numbers, students study French culture, events, and people. By the end of the course, students have a foundation in the study of French, are able to engage in French conversation, and have built a solid foundation for further French language study.

Prerequisite: None

Length: Four Parts

French II

In French II, students continue their virtual tour through France and other French-speaking countries and regions. This second-level French course takes a historical perspective in teaching the language, covering historical events and historical figures. By the end of this course, students have gained a deeper knowledge of and appreciation for the French culture and language.

Prerequisite: French I

Length: Four Parts

French III

This course continues to build students' vocabulary, grammar, and communication skills with the objective of improving student achievement in reading, writing, and speaking French. Students apply what they have learned in previous French courses to French conversation. At the end of this course, students are able to express themselves in French.

Prerequisite: French II

Length: Four Parts

French IV

In this level four French course, students apply the knowledge they gained in previous French courses to become true Francophones. Students explore exciting eras of French history, from the Crusades to the Renaissance to the modern day, learning about famous authors and historical figures along the way. The course provides students with an advanced knowledge and deep appreciation of the French language and culture. At the end of this course, students are able to speak, read, and write in French with basic fluency.

Prerequisite: French III

Length: Four Parts

German I

German I is a comprehensive and engaging look at the German language and culture and focuses on the most essential information needed to communicate in German. After mastering the German alphabet and numbers, students study German culture, events, and people. By the end of the course, students have a foundation in the study of German and can engage in conversational German.

Prerequisite: None

Length: Four Parts

German II

Building upon the content learned in German I, students are immersed in the language, while learning cultural aspects of German-speaking countries. The course emphasizes increasing students' skills in understanding spoken German, and writing, reading, and speaking in German. German II provides a comprehensive review of German grammar while improving students' vocabulary skills. At the end of this course, students have a knowledge of and appreciation for the German people and language.

Prerequisite: German I

Length: Four Parts

Spanish I

This introductory course provides a solid foundation for students to build proficiency in listening, speaking, reading and writing in Spanish, and provides students with basic skills and contextual information for using Spanish. Each unit presents new information including useful vocabulary and grammatical structures, and introduces relevant cultural information. At the then end of this course, students have the basic skills and contextual information required for using Spanish in their professional and daily lives, and when traveling abroad.

Prerequisite: None

Length: Four Parts

Spanish II

In Spanish II, students are immersed in the Spanish language and in the cultural aspects of Spanish-speaking countries. Students build on what they learned in Spanish I, with a study of Spanish grammar and emphasis on increasing their skills in listening, writing, reading, and speaking in Spanish. At the end of this course, in addition to improving their Spanish language skills, students have a knowledge of and appreciation for the culture of Spanish-speaking countries, including the events and people that have impacted its growth.

Prerequisite: Spanish I

Length: Four Parts

Spanish III

In this level three Spanish course, students apply what they learned in previous courses to conversational Spanish. Students explore cultural aspects of Spanish-speaking countries ranging from schools and careers to sports and authors. At the end of this course, students have improved Spanish language skills, and can express themselves in Spanish conversation.

Prerequisite: Spanish II

Length: Four Parts

Spanish IV

From the Caribbean to South America, and Mexico to Spain, students continue their exploration of Spanish and Latin American language and culture. The course provides students with an advanced knowledge and deep appreciation of the many Spanish-speaking peoples and countries around the world. At the completion of this course, students will have gained the knowledge and skills to speak, read, and write in the Spanish language with basic fluency.

Prerequisite: Spanish III

Length: Four Parts

This Keystone Biology Course gives students an overview and detailed information about the content covered in Module A of the Keystone Biology exam. The course, as well as the module, focuses on how life is structured and how the processes of life are carried out within the cell. The course begins with a discussion of what it means to be alive. Students will learn the characteristics shared by all living things, including single-celled organisms. Students learn to differentiate between the two types of cells (eukaryotic and prokaryotic) that make up all living things. The processes of life are all chemistry-based, and a number of specific chemicals make up all living things. Students will explore the structure and function of the major biochemical, including fats, lipids, and proteins. Just as the body has specific structures to carry out its functions, the cell has specialized structures that carry out life's processes. Students will learn about the structures and functions of the cell's organelles. Cells do not live in a vacuum; they must interact with the outside world. Students will discover the processes that cells use to bring new materials into the cell and transport other materials out. All of these processes take energy. The cell can either use photosynthesis to produce its own chemicals to store energy or consume other organisms to get those chemicals, but all cells must go through respiration to process those chemicals and release the energy. Students will learn the chemical processes that cells use to complete photosynthesis and cellular respiration. Through analysis and evaluation of these elements, students learn the concepts covered on the Keystone Exam.

Part Two

This Keystone Biology Course gives students an overview and detailed information about the content covered in Module B of the Keystone Biology exam. The first half of the course focuses on the way that the information of life is passed along. The second half of the course involves the interaction of life with the outside world. Before jumping into those meaty subjects, the students get an opportunity to explore what is meant by science and how the scientific process works. The information and blueprints of a cell are held in the cell's DNA. Students will learn how that information is organized into the genes and chromosomes and used to create specific proteins that drive the functions of the cells. This information must be passed along to other cells as the cells reproduce or multiply and the organism grows. Students will explore the processes of mitosis and meiosis, which help ensure that the DNA from one cell is copied and placed in the daughter cells. The DNA put into the cells will determine the traits of the new organism. Students will explore the subject of genetics, learn how traits are passed along, and learn why some traits are passed along more often than others. Students will learn how this leads to the permanent changes in the species that are the hallmark of evolution. The way an organism interacts with its environment and other organisms drive the evolutionary process. Students will explore the concepts of ecology, including species interaction and the natural cycles of the environment. Through analysis and evaluation of these elements, students learn the concepts covered on the Keystone Exam.

Keystone Literature

Part One

This course is designed to expose students to a variety of texts in order to practice reading comprehension, vocabulary strategies, and literary analysis. This work will help prepare students for the Keystone Exam. Part 1 of Keystone Literature focuses on elements of fiction.

Throughout this part, students read a wide selection of fiction, including short stories, drama, and poetry – three types of literature covered on the Keystone Exam. The lessons in this part cover a variety of literary elements, including plot, setting, characters, irony, dialect, figurative language, imagery, mood, and conventions of drama. Through analysis and evaluation of these elements, students practice necessary skills covered on the Keystone Exam.

Part Two

This course is designed to expose students to a variety of texts in order to practice reading comprehension, vocabulary strategies, and literary analysis. This work will help prepare students for the Keystone Exam. Part 2 of Keystone Literature focuses on the elements of nonfiction.

Throughout this part, students read a wide selection of nonfiction, including newspaper articles, speeches, essays, and excerpts from an autobiography. The lessons in this part give students the opportunity to practice identifying and evaluating nonfiction texts. Students learn to identify main ideas and supporting details, examine rhetoric and language in a persuasive work, and evaluate an author's purpose in order to practice skills necessary for the Keystone Exam.

Keystone Mathematics

Part One

This course is designed to expose students to a variety of mathematical concepts in order to practice specific skills and problem-solving strategies and better prepare them for the Keystone Exam. This course may be used as preparatory or remediation material. Part 1 of Keystone Mathematics focuses on beginning Algebra concepts.

Throughout this part, students focus on skills aligned to Module 1 standards of the Keystone Exam. Topics covered include comparing and ordering numbers; simplifying and evaluating exponential expressions; operations with polynomials; and solving and graphing linear equations,

inequalities, and systems. Through analysis and practice of these concepts, students practice necessary problem-solving skills covered on the Keystone Exam.

Part Two

This course is designed to expose students to a variety of mathematical concepts in order to practice specific skills and problem-solving strategies and better prepare them for the Keystone Exam. This course may be used as preparatory or remediation material. Part 2 of Keystone Mathematics focuses on continued Algebra concepts.

Throughout this part, students focus on skills aligned to Module 2 standards of the Keystone Exam. Topics covered include analyzing patterns and relations; exploring functions, domain, and range; working with linear functions and their characteristics; using displays to represent and analyze data; and calculating and applying probabilities of events. Through analysis and practice of these concepts, students practice necessary problem-solving skills covered on the Keystone Exam.

Credit Recovery

Algebra I

Students start this course by covering concepts in beginning algebra, including solving equations and inequalities and understanding the characteristics of linear equations. Students learn to understand algebraic expressions and equations so that they can use them to solve problems. Students explore solving inequalities and applying this knowledge. The third unit focuses on the graphs of linear equations, their slopes and intercepts, and different equation forms.

Part 2 of this course covers systems of equations, factoring, and quadratic equations. Students will extend their knowledge of linear equations by solving and applying systems of equations to applications. The second unit details the structure of polynomials and factoring. The third unit explains quadratic equations, including how to solve these types of equations and the characteristics of their graphs.

Algebra II

Students begin this course by covering linear functions and their graphs, linear systems of equations and inequalities, and matrices. Students learn to understand and apply linear functions. They then explore more complex systems of equations and inequalities. Finally, students use various methods to solve matrices and apply them to real-world situations.

Part 2 of this course covers quadratic functions and their graphs, exponential and logarithmic functions, probability, and distributions. Students learn multiple methods of solving quadratic functions, explore complex solutions, and determine the appearance of solutions on the coordinate plane. The second unit introduces students to new types of functions by exploring the inverse relationship between exponential and logarithmic functions. The third unit focuses on probability concepts and ways that binomial and normal distributions are used to solve application problems.

American History

The American History course is designed to provide students with a comprehensive and engaging profile of the history of the United States of America from the end of the Civil War in 1865 to the height of the Cold War in 1980. The course is organized as a journey through the key events that have shaped America as a nation since the divisive and destructive Civil War. The journey begins with Reconstruction, a period of great transition that offered an opportunity to heal a broken nation. It passes through the great migration westward and explores how the Industrial Revolution and waves of immigration fueled the flames of the American spirit. The course details the challenges America faced and the difficulties in reaching equality faced by native-born populations, African Americans, immigrants, and women. Students will learn how the core values of the founding fathers eventually prevailed and led to the women's suffrage and civil rights movements. The impact of war is closely investigated in the course, with units covering the role of the United States in World War I, World War II, the Korean War, and the Vietnam War. Throughout this journey, the course highlights the great political, industrial, military, and human rights leaders who shaped America into a beacon of hope. At the completion of this course, students will have gained both a knowledge of and appreciation for the events and people who have impacted the growth of the nation.

Anatomy and Physiology

Anatomy and physiology are concerned with the body – in this case, the human body. Students will learn about both the structure of body (anatomy) and the functions of those structures (physiology). The course begins with an overview of the body, its various regions, and the terms used to discuss it. From there, the course covers the cellular structures that make up the body and help carry out its necessary functions. Students will learn about the different levels of organization from cells to organs and organ systems, and explore the interconnections between the organ systems. In particular, students will investigate the interconnections between the skeletal and muscular systems and the cardiovascular and respiratory systems.

In Part 2 of the course, students will learn about other body systems, including the digestive system, which takes in nutrients, and the urinary and excretory systems, which remove wastes from the body. They will learn how the body keeps itself running smoothly and under control. They will examine the lymphatic system, which aids the immune system, and the endocrine system, which produces the chemicals that send messages throughout the body. All of these systems, along with voluntary and involuntary actions, are under the control of the nervous system. The course concludes with a discussion of the structure of the reproductive system, which enables life to continue for future generations.

Biology

This course will provide students with a broad and interactive experience covering the main topics of biological science. Biology is a large, complex, and ever-changing topic. Students will be exposed to topics ranging from the process of science to cell reproduction to the diversity of life. Life has common characteristics, whether the subject of examination is single cells or complex organisms, such as humans. The course begins by introducing students to the definition of life and applying the scientific method to biological concepts. Scientific methodology is critical to the study of biology, because many life-forms and structures vital to life are too small to see in great detail with the naked eye. The course shows how scientific methodology was used to develop a classification system for living things. The course supports student learning by focusing on the latest scientific research.

For an organism to be considered alive, it must be able to perform a number of functions. Students will see how organisms carry out their various functions from respiration to reproduction. As organisms reproduce, their characteristics are passed on to the next generation. Students will see how this plays out as they explore genetics and evolution. A study of ecology raises student awareness of the many challenges and opportunities of the modern world. Currently, Earth is the only planet known to harbor life. Students will learn about the processes that allow Earth to support life and how life-forms interact with one another and the environment.

Calculus

Students begin this course by focusing on the building blocks that connect algebraic concepts to calculus, including the slopes of curves. Throughout this part, students focus on the fundamental ideas of calculus and how they apply to a variety of functions and their applications. Topics covered include limits, continuity, tangents to curves, derivative rules and notation, concavity, critical numbers, extrema, modeling, and optimization.

Part 2 of this course focuses on a variety of calculus concepts and their applications. Topics covered include approximation techniques for areas under curves, definite and indefinite integration, differential equations, volumes of solids, parametric and polar curves, convergence, divergence, and other series. Through analysis and practice of these concepts, students gain the skills necessary to succeed with calculus.

Chemistry

This course will provide students with an engaging and effective online experience in chemistry. Students will be challenged as they apply their studies in other sciences to new theories, models, and problems. Chemistry provides a way to apply the scientific method, explaining the activities of particles that are too small to see clearly even with powerful microscopes. The course begins by taking the students to the roots of chemistry, focusing on the early scientists who laid the foundations of this science. Students review the scientific method and learn how it was applied to develop both the theory of the atom and the periodic table. Chemistry also lays the foundation for other courses because it deals with the fundamental particles of matter. Students explore the structure of the atom, which is the building block of all matter, and the impact of that structure on the behavior of atoms of different elements. Students will then explore the properties and relationships of these particles in the various forms of matter: liquid, gas, and solid.

Matter does not exist in isolation. Different materials interact in a variety of ways. The course will show how these interactions occur in compounds and in mixtures. Students expand their understanding of that structure as they examine the ways that bonds form between atoms and the impact that these bonds have on the characteristics of the atoms involved. Students will explore how bonds are formed and broken in chemical reactions and the law of conservation of matter. The next part of the course will explore the laws that cover the behavior of gases, which is different from that of liquids and solids. Finally, students will explore the characteristics and behaviors of solutions and mixtures.

Integrated Mathematics 1

Students begin this course by focusing on the fundamental ideas of algebra. Throughout this part, students focus on essential algebraic concepts. The topics covered include numbers and quantities, expressions, equations, graphs of linear equations, systems of equations and inequalities, and the characteristics of functions.

Part 2 of this course focuses on advanced concepts in algebra, as well as data analysis and geometry. Throughout this part, students focus on a variety of mathematical concepts and their applications. The topics covered include graphs of trigonometric functions, the structure of polynomials, exponential and logarithmic relationships, data analysis, and geometric constructions and proofs.

Integrated Mathematics 2

Students begin this course by focusing on essential algebraic concepts. The topics covered include numbers and quantities, expressions, equations, graphs of linear equations, systems of equations and inequalities, and the characteristics of functions.

Part 2 of this course focuses on a variety of mathematical concepts and their applications. The topics covered include graphs of trigonometric functions, the structure of polynomials, exponential and logarithmic relationships, data analysis, and geometric constructions and proofs.

Integrated Mathematics 3

Students begin this course by focusing on essential algebraic and statistical concepts. The topics covered include data sampling methods, data distributions, rules and properties of exponents, sequences, polynomial structures, and rational expressions.

Part 2 of this course focuses on a variety of mathematical concepts and their applications. The topics covered include angle measurements, radians and the unit circle, the laws of sines and cosines, trigonometric functions and identities, function comparison, and geometric modeling.

Integrated Mathematics 4

Students begin this course by focusing on essential concepts in linear algebra. The topics covered include rectangular and polar forms of numbers, vector operations, matrices, and rational functions.

Part 2 of this course focuses on a variety of mathematical concepts and their applications. The topics covered include rational functions, function composition, trigonometric functions and graphs, and probability distributions.

Earth Science

Earth occupies a unique position in the solar system and in the universe as a whole. It is the only planet in this solar system that can support life, according to current knowledge. Only a handful of planets that could support life have been identified, but scientists believe that many more exist. This course will allow students to explore the characteristics of Earth that allow it to support life. Earth science is the combined study of

geology, physics, chemistry, and biology as they impact the universe, Earth's internal processes, and the structure and relationships of the natural world. Included in this course is a study of Earth's air and water and the physical processes that shape the physical world. This course also focuses on ways that human civilization has impacted the balance of nature.

Students will learn how Earth is studied and mapped and are introduced to the different processes that repeat themselves in the cycles that allow life to exist on the planet. Students learn about geology, the study of Earth, as they explore components of Earth. They will learn about different types of rocks and how they are formed, minerals, and plate tectonics. Students will also learn how Earth and the Moon move in relation to each other and the Sun, and how those movements impact the seasons and the climate patterns around the planet. Students will learn how the moving Earth creates spectacular natural disasters, such as volcanic eruptions and earthquakes, and examine the awesome shape-changing power of glaciers. Finally, students will leave Earth behind to study astronomy as they virtually explore the objects that exist beyond this planet.

English 1

Students begin by reading Shakespeare's tragedy *Romeo and Juliet*. Throughout the lessons concerning this play, students learn about the conventions of drama and the elements of plot. They also discover how to make predictions and inferences while reading a work of literature. Students will read excerpts of Miguel de Cervantes's novel *Don Quixote* and learn how to analyze internal and external conflicts. Students will implement what they learn by writing short responses to works of literature as well as a longer expository essay.

Part 2 of this course builds on the skills introduced in Part 1. This part begins with an overview of poetry, poetic form, and poetic elements. To demonstrate understanding of this genre of literature, students write a compare-and-contrast essay that focuses on poetry analysis. Following this, students practice reading and responding to a longer work of literature, Mark Twain's novel *The Adventures of Huckleberry Finn*.

English 2

Students begin this course by reading a selection of famous speeches and documents. Throughout these lessons, students learn to summarize main ideas and key supporting details, analyze rhetoric and language, and employ vocabulary strategies to improve their reading comprehension. From there, students move on to reading and analyzing George Orwell's novel *Animal Farm*, an allegory of the Russian Revolution and Stalin's rise to power.

Part 2 of this course emphasizes the importance of the narrative form in both reading and writing. Throughout this course, students actively read and analyze both long and short works of literature, study the narrative form and elements of style, and write an original short story.

English 3

Students begin by reading a selection of poetry by renowned authors such as Carl Sandburg, Maya Angelou, Edgar Allan Poe, Langston Hughes, and Emily Dickinson. In the second half of Part 1, students read F. Scott Fitzgerald's classic novel *The Great Gatsby* and practice evaluating literary elements including plot, character, setting, and conflict. Throughout the course, students also employ vocabulary strategies to increase their reading comprehension, study elements of grammar, and study and practice characteristics of good writing.

In Part 2 of this course, students study various forms of literature, including short stories, dramas, and novels. This wide selection of reading encompasses works by Nathaniel Hawthorne, Mark Twain, William Faulkner, Henrik Ibsen, and Mary Shelley. Throughout the course students read, evaluate, and respond to these works of literature.

English 4

Students begin by reading a selection of nonfiction texts, including newspaper articles, speeches, and essays. As they evaluate these texts, students learn how to structure an argument, analyze rhetoric, and identify main ideas and supporting details in a text. Students employ these skills when they write their own persuasive essays on topics of their own choosing. In the latter half of Part 1, students study classic works of British literature, including selections from Geoffrey Chaucer's *The Canterbury Tales* and Shakespeare's classic tragedy *Hamlet*.

Part 2 of this course teaches students to evaluate the narrative form and key elements of literature in order to practice their analytical and critical thinking skills. Throughout this course, students read and analyze both long and short works of literature, study the narrative form and elements of style, and write an original short story.

Geometry

Students begin this course by covering concepts in beginning geometry, including triangles, polygons, area, and perimeter. First, students develop an understanding of triangle properties, postulates, and theorems and use them to solve problems. They then explore the properties of polygons and parallelograms, applying these properties to real-world problems. Finally, students focus on area and perimeter applications that involve a variety of shapes.

Part 2 of this course covers the concepts of trigonometric relationships, circles, surface areas, and volumes. First, students revisit the Pythagorean theorem and explore how special trigonometric ratios and laws help them to solve a variety of triangle problems. The second unit explores parts and measurements of circles, including tangent and secant theorems. Unit 3 extends students' knowledge of area as they apply surface area and volume formulas to a variety of shapes.

Physics

This course will provide students with an engaging and effective online experience in physics. Unlike chemistry and biology, which sometimes focus on objects too small to see, physics often deals with the motion of everyday objects. In that way, physics can be easier to visualize. Beginning with Newtonian mechanics, students will learn that every object is acted upon by multiple predictable forces that can be measured or calculated. Isaac Newton's impact on the study of motion was revolutionary; students study his laws and the mathematics of moving objects. Students will learn how to describe the causes and effects of the quantities that describe the motion of objects in straight lines, curved lines, and circles. Students also learn about different kinds of forces, some of which require objects to be in contact with one another, and others, such as gravity, which do not. Gravity is one of the fundamental forces holding the universe together. Through an examination of the work of Johannes Kepler, the students will see the laws that govern the motion of the universe.

Forces not only cause changes in motion; they can be used to do work. The ability to do work is energy, and the rate at which work is done is power. Students will examine the relationships between work, power, and energy. Energy exists in many forms and can change from one form to another; however, the total energy cannot change. Students explore the conservation of energy as it relates to the motion of an individual object and the collisions between two objects. Students will continue that exploration by studying periodic and harmonic motions, the forces of electrostatics between charged particles, periodic motion, and the transfer of energy.

Physical Science

This course is designed to cover the concepts in the field of physical science in an interactive and engaging way. Physical science encompasses both chemistry and physics. Both of these subjects involve quantitative analysis, giving students the opportunity to take and analyze measurements. The study of chemical principles exposes students to the structure and behavior of matter in its various forms. Physics is the study of motion, the forces that govern that motion, and the way energy is processed by matter. Students are asked to apply their knowledge of these topics through problems, explanations, and graphs. Activities and explorations help to keep students engaged with the material.

The physical science course begins with discussion of scientific methodology and measuring systems, which are imperative to the future discussion of the concepts in the course. Students apply the scientific method to exploring the structure of the atom, investigating the evidence that supports the various models used to characterize atoms and molecules. This structure leads to the properties of matter, such as structure, phase changes, and chemical and physical properties. The course then shifts to the physics side of physical science. Measuring systems are applied with a discussion of motion. Students will investigate the forces that cause changes in motion and the work of Isaac Newton, which is the foundation for physics. Students will learn about the work of two other giants of physics, Pascal and Archimedes. Though the study of motion begins with force, it also concerns energy, which is the ability to do work. The course concludes with an exploration of the relationship between force, work, power, and energy.

Pre-Algebra

Students begin this course by covering the concepts of integers, decimals, fractions, and one-variable equations. Students explore and review concepts related to integers and operations and use integers to solve problems. They explore the use of operations for solving problems involving decimals and fractions. Finally, students gain a foundation in solving equations and learn how to represent sentences as equations.

Part 2 of this course covers the concepts of ratios, proportions, graphs of linear equations and inequalities, data displays, and probability. Students will use ratios, rates, and proportions to solve a variety of applications including measurement conversions, figures, and scales. In the second unit, students extend their knowledge of one-variable equations to linear equations and inequalities, exploring characteristics such as slope and intercept to graph and check solutions. The third unit introduces various types of data displays, including box plots and stem-and-leaf plots. Students end the unit by solving basic probability problems related to independent and dependent events.

Pre-Calculus

Students begin this course by focusing on a variety of functions and their applications. The topics covered include working with functions, complex numbers, solutions to polynomial equations, exponential and logarithmic properties, systems of equations, and matrices.

Part 2 of this course focuses on a variety of trigonometric concepts and their applications. The topics covered include angles and the unit circle, trigonometric graphs, functions, identities and equations, sequences and series, vectors, and conic sections.

Spanish 1

This course gives students the opportunity to learn the basics of the Spanish language. Students begin by learning the Spanish alphabet and understanding the difference between consonants and vowels. Students learn conversational phrases including greetings, farewells, and introductions, then progress to some more formal aspects of the language, including subject pronouns and the differences between *tú* and *usted*, the formal and informal forms of *you*. Students will learn how to communicate about names, feelings, and nationality. Lessons address many aspects of daily life including likes and dislikes, the weather, the seasons, the days of the week, the months of the year, and counting

from 0 to 199. Students will also learn about the Aztec calendar. Part 1 ends with a study of Spanish noun articles equivalent to *a*, *an*, and *the* in English and regular verb conjugations for *-ar*, *-er*, and *-ir* verbs.

Part 2 of the course gives students the tools to describe the world around them. Students learn adjectives and the verb *ser*, one form of the verb *to be*. They will also learn how to ask questions and form sentences by using *if* and *when*. Students expand their vocabulary to talk about appearances, objects, and the rooms in a house. The verbs *haber* (similar to *there are*) and *necesitar* (*to need*) are introduced. Students will be able to ask questions about quantity and cost, talk about the time of day, discuss family members and relationships, indicate possession, and discuss household chores.

Spanish 2

This course allows students to expand their Spanish vocabulary to discuss subjects including locations, school, food, and clothing. Lessons address different places and the reasons people go there as well as the classes, objects, and people at school. Students will learn the verbs *faltar* (*to be missing*) and *estar* (another aspect of *to be*), and learn how to use both regular and irregular past participles. Students will also learn to distinguish between the verbs *tener* (*to have*) and *haber* (similar to *there are*).

Part 2 of the course introduces a variety of food-related vocabulary including the names of fruits, vegetables, proteins, fish and seafood, breads and grains, sweets, dairy products, snacks, and beverages. Students will use this vocabulary to learn how to discuss the food eaten at particular meals and how to order food at a restaurant. Students will learn the words for colors and use these to describe clothing items and accessories. They will be able to state what a person is wearing, describe the size and fit of clothing, and shop for clothing.

US Government

This stimulating course offers students a comprehensive examination of the US government. Students will explore the evolution of American democracy from its birth in the eighteenth century to the expansive roles of the federal, state, and local administrations of today. Topics including changes to the Constitution, the function of the Supreme Court, the structure of Congress, and the importance of the media are investigated in order to give students a well-supported understanding of the reasons for and responsibilities of government. The relationship between the political parties and lobbyists is detailed, as well as the processes of monitoring and funding federal elections. Finally, students will learn about the roles of state and local governments and the direct impact these organizations have on their lives.

World Geography

This course is designed to illustrate the world's geographical divisions, the documentation of the land and water masses by topographers and geographers, and the differences between Earth and the other planets in the solar system. The course not only discusses the planet's physical traits, but also highlights cultural differences between people in different countries. The different norms in each country have to be considered as nations interact with one another. Studying geography allows students to determine how to make the most of the planet without abusing its resources. The study of world geography includes historical, cultural, physical, and economic perspectives, offering students a broad understanding of the diverse world.

World History

This course provides students with a comprehensive, engaging profile of world history. This course is organized as a journey through the historical events that have shaped the modern world. The material is organized sequentially, exploring history from 1400 CE to the present day. The course focuses on the leaders of the world's most influential countries and the impact that their decisions and innovation have had on the populace. Topics covered include the Renaissance, the French Revolution, the Industrial Revolution, and both World Wars. The goal of this part is to enlighten students about the relationship between past historical events and the characteristics of the modern world.

Honors

Algebra 1 Honors

Throughout Algebra 1 Honors, students will study a range of topics that extend beyond the traditional framework of Algebra 1. This course begins with fundamental topics in algebra, including number classification, parts of expressions, linear equations, and proportionality. Students will extend these topics as they learn about the many characteristics and applications of linear functions. The course continues with an exploration of systems of equations and inequalities, the structure of polynomials, and an in-depth examination of quadratic functions. Students wrap up the course by analyzing data and probability concepts, inverses, radical functions, and rational expressions.

Prerequisite: None

Length: Four parts

Algebra 2 Honors

In Algebra 2 Honors, students will be challenged with a variety of topics from algebra, geometry, trigonometry, and statistics. The course begins with linear functions and their applications, matrices, and characteristics of quadratic functions. Students will then explore the complex number system and its relationship to quadratics and polynomials. The course continues with an in-depth look at functions, including rational, exponential, logarithmic, and piecewise functions. Students will also study the concept of inverse functions, as well as the structure and applications of conic sections. The course ends with a look at trigonometric functions and their applications, advanced probability concepts, and normal distributions.

Prerequisite: Geometry

Length: Four parts

American History Honors

In American History Honors, students will study the framework of cultural, political, and social issues that have touched and impacted American society. Focusing on reading as a historian, students will begin by practicing the skills needed for reading primary and secondary resources. They will incorporate these skills as they delve into the course material. Picking up with Reconstruction and concluding with globalization in the twenty-first century, students will discover how cooperation, innovation, and spirit have shaped the United States into the country it is today.

Prerequisite: None

Length: Four parts

Biology Honors

Biology is the study of life. In this course, students will study life's processes, looking at organisms from tiny single-celled organisms to large multicellular organisms. Students will also explore the ways organisms interact with one another and their environments. In addition, they will examine how traits are passed down through generations and how the traits of a species can change over time. In this honors-level course, students will have the opportunity to go beyond the traditional content of a biology course. The course will allow them to go deeper into the information, explore current research, and analyze public policy issues related to biology.

Prerequisite: None

Length: Four parts

Chemistry Honors

In the simplest terms, chemistry is the study of matter. Nearly everything in the world is matter. Anything that can be touched, seen, heard, or smelled is matter. Even things that cannot be seen, such as atoms, are matter. In the Chemistry course, students will study the basic structure of matter and the ways different types of matter interact. They will explore how single atoms come together to make large complex molecules and mixtures. Anything that isn't matter is energy. Students will examine the ways matter interacts with energy. Students in the honors course will learn basic chemistry concepts, then explore them in greater detail. In addition, students will have the opportunity to examine cutting-edge research and learn about the latest advancements in chemistry.

Prerequisite: None

Length: Four parts

English 1 Honors

The honors English track begins with English 1 Honors, a course which introduces students to great works of literature including Shakespeare's classic tragedy *Romeo and Juliet*, Mary Shelley's Gothic novel *Frankenstein*, and Voltaire's satire *Candide*. Throughout this course, students will learn to actively read, study, and analyze both fiction and nonfiction. Additionally, students will write essays and complete projects that meet a range of purposes in order to demonstrate their understanding of the concepts taught in the course.

Prerequisite: None

Length: Four parts

English 2 Honors

Throughout English 2 Honors, students will complete a range of tasks that demonstrate their ability to write in different styles and increase their understanding of the texts they study throughout the course. Students will study and develop their speaking, listening, writing, and presentation skills as they complete their coursework. They will also read a variety of texts, including speeches by prominent figures such as Nelson Mandela and the Dalai Lama and books including *Lord of the Flies*, by William Golding, and *Animal Farm*, by George Orwell.

Prerequisite: None

Length: Four parts

English 3 Honors

Students will discover different genres of literature, including poetry, short stories, plays, novels, and essays, throughout their coursework in English 3 Honors. By engaging with the literature, students will learn more about how to analyze and evaluate literary devices, style, and structure. Throughout the course, students will demonstrate their learning by writing about the texts they read. They will also practice a variety of skills, including writing research, analytic, persuasive, and narrative essays, and leading a group discussion.

Prerequisite: None

Length: Four parts

English 4 Honors

The honors English track concludes with English 4 Honors. This course requires students to engage with a variety of fiction and nonfiction texts, including works by William Shakespeare, Charlotte Brontë, Geoffrey Chaucer, John Donne, Virginia Woolf, and Henry David Thoreau. In addition to reading, analyzing, and evaluating these texts, students will also hone their writing skills through a range of assignments and build on previously learned concepts to begin generating their own paper topics and research questions.

Prerequisite: None

Length: Four parts



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AP Courses

AP Biology

AP Biology builds students' understanding of biology on both the micro and macro scales. After studying cell biology, students move on to understand how evolution drives the diversity and unity of life. Students will examine how living systems store, retrieve, transmit, and respond to information and how organisms utilize free energy. The equivalent of an introductory college-level biology course, AP Biology prepares students for the AP exam and for further study in science, healthy sciences, or engineering.

The AP Biology course provides a learning experience focused on allowing students to develop their critical thinking skills and cognitive strategies. Frequent no- and low-stakes assessments allow students to measure their comprehension and improve their performance as they progress through each activity. Students regularly engage with primary sources, allowing them to practice the critical reading and analysis skills that they will need in order to pass the AP exam and succeed in a college biology course. Students perform hands-on labs that give them insight into the nature of science and help them understand biological concepts, as well as how evidence can be obtained to support those concepts. Students also complete several virtual lab studies in which they form hypotheses; collect, analyze, and manipulate data; and report their findings and conclusions. During both virtual and traditional lab investigations and research opportunities, students summarize their findings and analyze others' findings in summaries, using statistical and mathematical calculations when appropriate. Summative tests are offered at the end of each unit as well as at the end of each semester, and contain objective and constructed response items. Robust scaffolding, rigorous instruction, relevant material and regular active learning opportunities ensure that students can achieve mastery of the skills necessary to excel on the AP exam.

This course has been authorized by the College Board to use the AP designation. *AP is a registered trademark of the College Board.

Prerequisite: Biology

Length: Two Semesters

Semesters 1 and 2: Required Materials:

AP Biology requires a college-level biology textbook. Students may use any college-level biology textbook to successfully complete the course. Resources are provided in the course to support students using texts found in the link below:

http://dierulunb7.cloudfront.net/documents/ALVS_Materials.pdf

AP Biology requires the completion of hands-on lab activities and has been approved by the College Board as meeting all requirements for a laboratory science course. For a list of hands-on lab materials, go to:

<http://support.apexlearning.com/materials>.

AP Calculus

In AP Calculus AB, students learn to understand change geometrically and visually (by studying graphs of curves), analytically (by studying and working with mathematical formulas), numerically (by seeing patterns in sets of numbers), and verbally. Instead of simply getting the right answer, students learn to evaluate the soundness of proposed solutions and to apply mathematical reasoning to real-world models. Calculus helps scientists, engineers, and financial analysts understand the complex relationships behind real-world phenomena. The equivalent of an introductory college-level calculus course, AP Calculus AB prepares students for the AP exam and further studies in science, engineering, and mathematics.

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Prerequisite: Algebra II, Geometry, Pre-Calculus with Trigonometry

Length: Two Semesters

Semesters 1 and 2: Required Materials:

TI-84 Plus, TI-83, or TI-83 Plus Calculator. Read "Getting Started" and Chapter 1 in the TI Guidebook before the course starts.

AP Calculus AB requires a college-level calculus textbook. Students may use any college-level calculus textbook to successfully complete the course. Resources are provided in the course to support students using texts found in the link below:

http://dierulunbbeq7.cloudfront.net/documents/ALVS_Materials.pdf

AP Chemistry

AP Chemistry builds students' understanding of the nature and reactivity of matter. After studying chemical reactions and electrochemistry, students move on to understand how the chemical and physical properties of materials can be explained by the structure and arrangements of the molecules and the forces between those molecules. Students will examine the laws of thermodynamics, molecular collisions, and the reorganization of matter in order to understand how changes in matter take place. Finally, students will explore chemical equilibria, including acid-base equilibria. The equivalent of an introductory college-level chemistry course, AP Chemistry prepares students for the AP exam and for further study in science, health sciences, or engineering.

The AP Chemistry course provides a learning experience focused on allowing students to develop their critical thinking skills and cognitive strategies. Frequent no- and low-stakes assessments allow students to measure their comprehension and improve their performance as they progress through each activity. Students regularly engage with primary source materials, allowing them to practice the critical reading and analysis skills that they will need in order to pass the AP exam and succeed in a college chemistry course. Students perform hands-on labs that give them insight into the nature of science and help them understand chemical concepts, as well as how evidence can be obtained to support those concepts. Students also complete several virtual lab studies in which they form hypotheses; collect, analyze, and manipulate data; and report their findings and conclusions. During both virtual and traditional lab investigations and research opportunities, students summarize their findings and analyze others' findings in summaries, using statistical and mathematical calculations when appropriate. Summative tests are offered at the end of each unit as well as at the end of each semester, and contain objective and constructed response items. Robust scaffolding, rigorous instruction, relevant material, and regular active learning opportunities ensure that students can achieve mastery of the skills necessary to excel on the AP exam.

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Prerequisite: Chemistry

Length: Two Semesters

Semesters 1 and 2: Required Materials

AP Chemistry requires a college-level chemistry textbook. Students may use any college-level chemistry textbook to successfully complete the course. Though students may use any college-level textbook, resources such as page references and scaffolded reading guides are provided in the course to support students who use the texts found in the link below:

http://dierulunbbeq7.cloudfront.net/documents/ALVS_Materials.pdf

Students using other college-level chemistry textbooks or older editions will need to identify the appropriate sections of their text to complete each reading assignment.

AP Chemistry requires the completion of hands-on lab activities and has been approved by the College Board as meeting all requirements for a laboratory science course. For a list of hands-on lab materials, go to:

<http://support.apexlearning.com/materials>.

AP English Language and Composition

In AP English Language and Composition, students investigate rhetoric and its impact on culture through analysis of notable fiction and nonfiction texts, from

pamphlets to speeches to personal essays. The equivalent of an introductory college-level survey class, this course prepares students for the AP exam and for further study in communications, creative writing, journalism, literature, and composition.

Students explore a variety of textual forms, styles, and genres. By examining all texts through a rhetorical lens, students become skilled readers and analytical thinkers. Focusing specifically on language, purpose, and audience gives them a broad view of the effect of text and its cultural role. Students write expository and narrative texts to hone the effectiveness of their own use of language, and they develop varied, informed arguments through research. Throughout the course, students are

evaluated with assessments specifically designed to prepare them for the content, form, and depth of the AP Exam.

AP English Language and Composition is recommended for 11th and 12th grade students. This course fulfills 11th grade requirements. Consequently, we recommend that students take only one of the following courses: English 11, Texas English III, and AP English Language and Composition.

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Prerequisite: Complete/Pass English 10

Length: Two Semesters

Semesters 1 and 2: Required Materials:

AP English Language and Composition requires a college-level English textbook. Students may use any college-level English textbook to successfully complete the course. Resources are provided in the course to support students using texts found in the link below:

http://dierulunbreq7.cloudfront.net/documents/ALVS_Materials.pdf

AP English Literature & Composition

AP English Literature and Composition immerses students in novels, plays, poems, and short stories from various periods. Students will read and write daily, using a variety of multimedia and interactive activities, interpretive writing assignments, and class discussions to assess and improve their skills and knowledge. The course places special emphasis on reading comprehension, structural and critical analysis of written works, literary vocabulary, and recognizing and understanding literary devices. The equivalent of an introductory college-level survey class, this course prepares students for the AP exam and for further study in creative writing, communications, journalism, literature, and composition.

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Prerequisite: At least a B-grade in most recent English course

Length: Two Semesters

Semesters 1 and 2: Required Materials:

AP English Literature and Composition requires a college-level English textbook. Students may use any college-level English textbook to successfully complete the course. Resources are provided in the course to support students using texts found in the link below:

http://dierulunbreq7.cloudfront.net/documents/ALVS_Materials.pdf

AP Environmental Science

AP Environmental Science provides students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. The course draws upon various disciplines, including geology, biology, environmental studies, environmental science, chemistry, and geography in order to explore a variety of environmental topics. Topics explored include natural systems on Earth; biogeochemical cycles; the nature of matter and energy; the flow of matter and energy through living systems; populations; communities; ecosystems; ecological pyramids; renewable and nonrenewable resources; land use; biodiversity; pollution; conservation; sustainability; and human impacts on the environment. The equivalent of an introductory college-level science course, AP Environmental Science prepares students for the AP exam and for further study in science, health sciences, or engineering.

The AP Environmental Science course provides a learning experience focused on allowing students to develop their critical thinking skills and cognitive strategies. Scientific inquiry skills are embedded in the direct instruction, wherein students learn to ask scientific questions, deconstruct claims, form and test hypotheses, and use logic and evidence to draw conclusions about the concepts. Frequent no- and low-stakes assessments allow students to measure their comprehension and improve their performance as they progress through each activity.

Students perform hands-on labs and projects that give them insight into the nature of science and help them understand environmental concepts, as well as how evidence can be obtained to support those concepts. Virtual lab activities enable students to engage in investigations that would otherwise require long periods of observation at remote locations and to explore simulations that enable environmental scientists to test predictions. During both hands-on and virtual labs, students form hypotheses; collect, analyze, and manipulate data; and report their findings and conclusions. Throughout this course, students are given an opportunity to understand how biology, earth science, and physical science are applied to the study of the environment and how technology and engineering are contributing solutions for studying and creating a sustainable biosphere.

Prerequisite: Two years of high school laboratory science (one year of life science and one year of physical science), and one year of algebra

Length: Two Semesters

Semesters 1 and 2: Required Materials:

AP Environmental Science requires a college-level Environmental Science textbook. Students may use any college-level Environmental Science textbook to successfully complete the course. Resources are provided in the course to support students using texts found in the link below:

http://dierulunbreq7.cloudfront.net/documents/ALVS_Materials.pdf

AP Environmental Science requires the completion of hands-on lab activities and has been approved by the College Board as meeting all requirements for a laboratory science course. For a list of hands-on lab materials, go to <http://support.apexlearning.com/materials>.

AP Macroeconomics

AP Macroeconomics students learn why and how the world economy can change from month to month, how to identify trends in our economy, and how to use those trends to develop performance measures and predictors of economic growth or decline. They'll also examine how individuals, institutions, and influences affect people, and how those factors can impact everyone's life through employment rates, government spending, inflation, taxes, and production. The equivalent of a 100-level college-level class, this course prepares students for the AP exam and for further study in business, political science and history.

This course has been authorized by the College Board to use the AP designation. *AP is a registered trademark of the College Board.

Prerequisite: Algebra II (or Math Analysis)

Length: One Semester

Optional Materials:

http://dierulunbbeq7.cloudfront.net/documents/ALVS_Materials.pdf

AP Microeconomics

AP Microeconomics studies the behavior of individuals and businesses as they exchange goods and services in the marketplace. Students will learn why the same product costs different amounts at different stores, in different cities, at different times. They'll also learn to spot patterns in economic behavior and how to use those patterns to explain buyer and seller behavior under various conditions. Microeconomics studies the economic way of thinking, understanding the nature and function of markets, the role of scarcity and competition, the influence of factors such as interest rates on business decisions, and the role of government in promoting a healthy economy. The equivalent of a 100-level college course, AP Microeconomics prepares students for the AP exam and for further study in business, history, and political science.

This course has been authorized by the College Board to use the AP designation. *AP is a registered trademark of the College Board.

Prerequisite: Algebra I

Length: One Semester

Optional Materials:

http://dierulunbbeq7.cloudfront.net/documents/ALVS_Materials.pdf

AP Psychology

AP Psychology provides an overview of current psychological research methods and theories. Students will explore the therapies used by professional counselors and clinical psychologists and examine the reasons for normal human reactions: how people learn and think, the process of human development and human aggression, altruism, intimacy, and self-reflection. They will study core psychological concepts, such as the brain and sense functions, and learn to gauge human reactions, gather information, and form meaningful syntheses. Along the way, students will also investigate relevant concepts like study skills and information retention. The equivalent of an introductory college-level survey course, AP Psychology prepares students for the AP exam and for further studies in psychology or life sciences.

This course has been authorized by the College Board to use the AP designation. *AP is a registered trademark of the College Board.

Prerequisite: Biology

Length: One Semester

Required Materials:

AP Psychology requires a college-level Psychology textbook. Students may use any college-level Psychology textbook to successfully complete the course. Resources are provided in the course to support students using texts found in the link below:

http://dierulunbbeq7.cloudfront.net/documents/ALVS_Materials.pdf

AP Spanish Language

AP Spanish Language students practice perfecting their Spanish speaking, listening, reading, and writing skills. They study vocabulary, grammar, and cultural aspects of the language, and then apply what they learn in extensive written and spoken exercises. The course addresses the broad themes of Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics. By the end of the course, students will have an expansive vocabulary, a solid, working knowledge of all verb forms and tenses, strong command of other language structures, and an ability to use language in many different contexts and for varied purposes. The equivalent of a college-level language course, AP Spanish Language prepares students for the AP exam and for further study of Spanish language, culture, or literature.

This course has been authorized by the College Board to use the AP designation. *AP is a registered trademark of the College Board

Prerequisite: 3-4 years of Spanish or equivalent native fluency

Length: Two Semesters

Semesters 1 and 2: Required Materials:

Any Spanish-English, English-Spanish Dictionary and a Microphone

Semesters 1 and 2: Optional Materials:

http://dierulunbbeq7.cloudfront.net/documents/ALVS_Materials.pdf

AP Statistics

AP Statistics gives students hands-on experience collecting, analyzing, graphing, and interpreting real-world data. They will learn to effectively design and analyze research studies by reviewing and evaluating real research examples taken from daily life. The next time they hear the results of a poll or study, they will know whether the results are valid. As the art of drawing conclusions from imperfect data and the science of real-world uncertainties, statistics plays an important role in many fields. The equivalent of an introductory college-level course, AP Statistics prepares students for the AP exam and for further study in science, sociology, medicine, engineering, political science, geography, and business.

This course has been authorized by the College Board to use the AP designation. *AP is a registered trademark of the College Board.

Prerequisite: Algebra II or Math Analysis

Length: Two Semesters

Semesters 1 and 2: Required Materials:

TI-89, TI-84 Plus, TI-83, or TI-83 Plus Calculator

Read "Getting Started" and chapter 1 in the TI Guidebook before the course starts.

Semesters 1 and 2: Optional Materials:

http://dierulunbbeq7.cloudfront.net/documents/ALVS_Materials.pdf

AP U.S. Government and Politics

AP U.S. Government and Politics studies the operations and structure of the U.S. government and the behavior of the electorate and politicians. Students will gain the analytic perspective necessary to critically evaluate political data, hypotheses, concepts, opinions, and processes. Along the way, they'll learn how to gather data about political behavior and develop their own theoretical analysis of American politics. They'll also build the skills they need to examine general propositions about government and politics, and to analyze the specific relationships between political, social, and economic institutions. The equivalent of an introductory college-level course, AP U.S. Government and Politics prepares students for the AP exam and for further study in political science, law, education, business, and history.

This course has been authorized by the College Board to use the AP designation. *AP is a registered trademark of the College Board.

Prerequisite: U.S. History

Length: One Semester

Required Materials:

http://dierulunbbeq7.cloudfront.net/documents/ALVS_Materials.pdf

AP U.S. History

In AP U.S. History, students investigate the development of American economics, politics, and culture through historical analysis grounded in primary sources, research, and writing. The equivalent of an introductory college-level course, AP U.S. History prepares students for the AP exam and for further study in history, political science, economics, sociology, and law.

Through the examination of historical themes and the application of historical thinking skills, students learn to connect specific people, places, events, and ideas to the larger trends of U.S. history. Critical-reading activities, feedback-rich instruction, and application-oriented assignments hone students' ability to reason chronologically, to interpret historical sources, and to construct well-supported historical arguments. Students write throughout the course, responding to primary and secondary sources through journal entries, essays, and visual presentations of historical content. In discussion activities, students respond to the positions of others while staking and defending claims of their own. Robust scaffolding, rigorous instruction, relevant material, and regular opportunities for active learning ensure that students can achieve mastery of the skills necessary to excel on the AP exam.

This course has been authorized by the College Board to use the AP designation. *AP is a registered trademark of the College Board.

Prerequisite: None

Length: Two Semesters

Semesters 1 and 2: Required Materials:

AP U.S. History requires a college-level U.S. history textbook. Students may use any college-level U.S. history textbook to successfully complete the course.

Though students may use any college-level textbook, resources such as page references and scaffolded reading guides are provided in the course to support students who use any of the texts found in the link below:

http://dierulunbbeq7.cloudfront.net/documents/ALVS_Materials.pdf



AP Biology AB

This course is taught at the college level and designed to prepare students to take the Advanced Placement Examination and score high enough to earn college credit in those colleges that recognize the examination. College level textbooks are used. The course will cover all of the topics in the AP Biology Course Description. These include biochemistry, cell structure and function, cell energetics, cellular reproduction and communication, heredity, molecular genetics, evolution, ecology, diversity of organisms, structure and function of plants and animals, and comparative anatomy.

Semester A

Major Concepts:

- Change in the genetic makeup of a population over time is evolution.
- Organisms are linked by lines of descent from common ancestry.
- The origin of living systems is explained by natural processes.
- Growth, reproduction and maintenance of the organization of living systems require free energy and matter.
- Growth, reproduction and dynamic homeostasis require that cells create and maintain internal environments that are different from their external environments.
- Organisms use feedback mechanisms to regulate growth and reproduction, and to maintain dynamic homeostasis.
- Heritable information provides for continuity of life.
- Expression of genetic information involves cellular and molecular mechanisms.
- The processing of genetic information is imperfect and is a source of genetic variation.
- Cells communicate by generating, transmitting and receiving chemical signals.
- Transmission of information results in changes within and between biological systems.
- Interactions within biological systems lead to complex properties.
- Competition and cooperation are important aspects of biological systems.

Semester B

Major Concepts:

- Change in the genetic makeup of a population over time is evolution.
- Organisms are linked by lines of descent from common ancestry.
- Life continues to evolve within a changing environment.
- Growth, reproduction and maintenance of the organization of living systems require free energy and matter.
- Growth, reproduction and dynamic homeostasis require that cells create and maintain internal environments that are different from their external environments.
- Organisms use feedback mechanisms to regulate growth and reproduction, and to maintain dynamic homeostasis.
- Growth and dynamic homeostasis of a biological system are influenced by changes in the system's environment.
- Many biological processes involved in growth, reproduction and dynamic homeostasis include temporal regulation and coordination.
- Naturally occurring diversity among and between components within biological systems affects interactions with the environment.

Prerequisite: None

Length: 2 Semesters

Materials:

Biology, AP Edition—Campbell, Neil A. and J Reece—8th Edition,
5 Steps to a 5 AP Biology

AP Biology Investigative Labs: An Inquiry-Based Approach Student Manual (2012)

AP Calculus AB

AP Calculus AB is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. The AP course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

Students who are enrolled in AP Calculus AB are expected to:

- Work with functions represented in multiple ways: graphical, numerical, analytical, or verbal. They should understand the connections among these representations.
- Understand the meaning of the derivative in terms of a rate of change and local linear approximation and use derivatives to solve problems.
- Understand the meaning of the definite integral as a limit of Riemann sums and as the net accumulation of change and use integrals to solve problems.
- Understand the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.
- Communicate mathematics and explain solutions to problems verbally and in writing.
- Model a written description of a physical situation with a function, a differential equation, or an integral.
- Use technology to solve problems, experiment, interpret results, and support conclusions.
- Determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.
- Develop an appreciation of calculus as a coherent body of knowledge and as a human accomplishment.

Major Concepts:

- Analysis of Graphs
- Limits of Functions (including one-sided limits)
- Asymptotic and Unbounded Behavior
- Continuity as a Property of Functions
- Concept of the Derivative
- Derivative at a Point
- Derivative as a Function
- Second Derivatives
- Applications and Computation of Derivatives
- Interpretations and Properties of Definite Integrals
- Applications of Integrals
- Fundamental Theorem of Calculus
- Techniques and Applications of Antidifferentiation
- Numerical Approximations to Definite Integrals

Prerequisite: Pre-Calculus

Length: Two Semesters

Materials: Graphing calculator; Additional test prep materials will be required to purchase for the second half of the course. Information will be provided at the start of the class.

Textbook required: ISBN-13: 978-1101919859, ISBN-10: 110191985X

https://www.amazon.com/Cracking-Calculus-Exam-College-Preparation/dp/110191985X/ref=sr_1_1?s=books&ie=UTF8&qid=1469715717&sr=1-1&keywords=ISBN-13%3A+978-1101919859

AP Calculus BC

AP Calculus BC is roughly equivalent to both first and second semester college calculus courses and extends the content learned in AB to different types of equations and introduces the topic of sequences and series. The AP course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, the Fundamental Theorem of Calculus, and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

Students who are enrolled in AP Calculus BC are expected to:

- Work with functions represented in multiple ways: graphical, numerical, analytical, or verbal. They should understand the connections among these representations.

- Understand the meaning of the derivative in terms of a rate of change and local linear approximation and use derivatives to solve problems.
- Understand the meaning of the definite integral as a limit of Riemann sums and as the net accumulation of change and use integrals to solve problems.
- Understand the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.
- Communicate mathematics and explain solutions to problems verbally and in writing.
- Model a written description of a physical situation with a function, a differential equation, or an integral.
- Use technology to solve problems, experiment, interpret results, and support conclusions.
- Determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.
- Develop an appreciation of calculus as a coherent body of knowledge and as a human accomplishment.

Major Concepts:

- Analysis of Graphs
- Limits of Functions (including one-sided limits)
- Asymptotic and Unbounded Behavior
- Continuity as a Property of Functions
- Parametric, Polar, and Vector Functions
- Concept of the Derivative
- Derivative at a Point
- Derivative as a Function
- Second Derivatives
- Applications and Computation of Derivatives
- Interpretations and Properties of Definite Integrals
- Applications of Integrals
- Fundamental Theorem of Calculus
- Techniques and Applications of Antidifferentiation
- Numerical Approximations to Definite Integrals
- Concept of Series
- Series of constants
- Taylor Series

Prerequisite: Pre-Calculus

Length: Two Semesters

Materials: Graphing calculator; Additional test prep materials will be required to purchase for the second half of the course. Information will be provided at the start of the class.

Textbook required: ISBN-13: 978-1101919866, ISBN-10: 1101919868

https://www.amazon.com/Cracking-Calculus-Exam-College-Preparation/dp/1101919868/ref=sr_1_1?s=books&ie=UTF8&qid=1469715701&sr=1-1&keywords=ISBN-13%3A+978-1101919866

AP Chemistry AB

This course is taught at the college level and is designed to prepare students to take the Advanced Placement Examination and to score high enough to earn college credit in those colleges that recognize the examination. College level textbooks are used. The course will cover all of the topics in the AP Chemistry Course Description. These include an introduction to chemistry as the study of change, gases, thermochemistry, quantum theory, chemical bonding, crystals, phase changes, solutions, chemical kinetics, chemical equilibrium, acids and bases, entropy, electrochemistry, nuclear chemistry, metallurgy, alkali and alkaline metals, nonmetallic metals, transition metals, organic chemistry, and synthetic and natural organic polymers.

Semester A

Major Concepts:

- The chemical elements are fundamental materials of matter, and all matter can be understood in terms of arrangements of atoms. These atoms retain their identity in chemical reactions.
- Chemical and Physical properties of materials can be explained by the structure and the arrangement of atoms, ions, or molecules and the forces between them.

- Changes in matter involve the rearrangement of atoms and/or the transfer of electrons.
- The laws of thermodynamics describe the essential role of energy and explain and predict the direction of changes in matter.
- Any bond or intermolecular attraction that can be formed can be broken. These two processes are a dynamic competition, sensitive to initial conditions and external perturbations.
- Chemical and Physical properties of materials can be explained by the structure and the arrangement of atoms, ions, or molecules and the forces between them.
- Changes in matter involve the rearrangement of atoms and/or the transfer of electrons.
- Any bond or intermolecular attraction that can be formed can be broken. These two processes are a dynamic competition, sensitive to initial conditions and external perturbations.
- Chemical and Physical properties of materials can be explained by the structure and the arrangement of atoms, ions, or molecules and the forces between them.

Semester B

Major Concepts:

- Chemical and Physical properties of materials can be explained by the structure and the arrangement of atoms, ions, or molecules and the forces between them.
- The laws of thermodynamics describe the essential role of energy and explain and predict the direction of changes in matter.
- Chemical equilibrium plays an important role in acid-base chemistry and in solubility.
- The atoms of each element have unique structures arising from interactions between electrons and nuclei.
- Energy is neither created nor destroyed, but only transformed from one form to another.
- The chemical elements are fundamental materials of matter, and all matter can be understood in terms of arrangements of atoms. These atoms retain their identity in chemical reactions.
- Chemical and Physical properties of materials can be explained by the structure and the arrangement of atoms, ions, or molecules and the forces between them.

Materials : Advanced Microchem Kit (AP Chemistry Lab Kit by Quality Science Labs)

Textbook required: *Chemistry, AP Edition*—Chang R., Goldsby K.—11th Edition

Prerequisite: None

Length: 2 Semesters

AP English Language and Composition AB

This course is the first semester of a full credit course provides instruction on all the competencies needed to be successful on the Advanced Placement test from College Board. The course is designed to develop student awareness of how an author creates meaning through language use, genre conventions, and rhetorical choices. In addition, students are expected to write and analyze persuasive arguments. According to the English Language and Composition guidelines outlined on the AP website, the course “engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes” (English Language and Composition homepage, p.6). This course will help you to read with deeper understanding and write more powerfully and effectively. Our writing assignments include rhetorical analyses, personal essays, argumentative essays, expository essays, evaluation essays, journal entries, and more. You should plan on having an hour to devote to AP English homework every night. Access to a computer is essential as is regular attendance at class. The pace and level of work in this class is not easily made up just by getting the notes from someone.

Semester A

Major Concepts:

- Change in the genetic makeup of a population over time is evolution.
 - Organisms are linked by lines of descent from common ancestry.
 - The origin of living systems is explained by natural processes.

- Growth, reproduction and maintenance of the organization of living systems require free energy and matter.
- Growth, reproduction and dynamic homeostasis require that cells create and maintain internal environments that are different from their external environments.
- Organisms use feedback mechanisms to regulate growth and reproduction, and to maintain dynamic homeostasis.
- Heritable information provides for continuity of life.
- Expression of genetic information involves cellular and molecular mechanisms.
- The processing of genetic information is imperfect and is a source of genetic variation.
- Cells communicate by generating, transmitting and receiving chemical signals.
- Transmission of information results in changes within and between biological systems.
- Interactions within biological systems lead to complex properties.
- Competition and cooperation are important aspects of biological systems.

Semester B

Major Concepts:

- Change in the genetic makeup of a population over time is evolution.
- Organisms are linked by lines of descent from common ancestry.
- Life continues to evolve within a changing environment.
- Growth, reproduction and maintenance of the organization of living systems require free energy and matter.
- Growth, reproduction and dynamic homeostasis require that cells create and maintain internal environments that are different from their external environments.
- Organisms use feedback mechanisms to regulate growth and reproduction, and to maintain dynamic homeostasis.
- Growth and dynamic homeostasis of a biological system are influenced by changes in the system's environment.
- Many biological processes involved in growth, reproduction and dynamic homeostasis include temporal regulation and coordination.
- Naturally occurring diversity among and between components within biological systems affects interactions with the environment.

Prerequisite: None

Length: 2 Semesters

Materials: Analysis, Argument, and Synthesis (AP Honors)/Patterns for College Writing: A Rhetorical Reader and Guide

AP English Literature and Composition AB

Both semesters of *AP English Literature and Composition* have been designed to challenge students to read and interpret a wide range of literary works. This course allows students to explore a variety of genres and literary periods and to write clearly about the literature that they encounter. By the end of the second semester, the student will be well prepared for the AP examination and will have acquired analytical skills that will be used throughout life. The first semester of this course focuses on the elements of fiction. The student will spend a considerable amount of time reading and analyzing a variety of short stories and novels. The student will evaluate how the elements of plot analysis, characterization, theme, point of view, symbolism, allegory, irony, and humor work together to create a story or novel that is worthy of literary acclaim. In addition to reading, the student will complete a wide variety of writing pieces in order to develop better writing skills in the following areas: narrative, exploratory, expository, and argumentative.

Goals and Objectives:

- Analyze and interpret samples of good writing in a variety of genres, identifying and explaining an author's use of rhetorical strategies and techniques.
- Apply effective strategies and techniques in his or her own writing.
- Create and sustain arguments based on readings, research, and/or personal experience.
- Demonstrate an understanding and a mastery of standard written English as well as stylistic maturity by using:
 - a wide-ranging vocabulary with denotative accuracy and connotative resourcefulness.
 - a variety of sentence structures, including appropriate use of subordinate and coordinate constructions.

- logical organization, enhanced by specific techniques of coherence such as repetition, transition, and emphasis.
- a balance of generalization with specific illustrative detail.
- effective rhetoric, consistent voice, and emphasis through parallelism, and antithesis.
- Write in a variety of genres and contexts, both formal and informal, employing the appropriate conventions.
- Produce expository and argumentative compositions that introduce a complex central idea and develop it with appropriate, specific evidence, convincing explanations, and clear transitions.
- Move effectively through the stages of the writing process with careful attention to inquiry and research, drafting, revising, editing, and review.

Prerequisite: Successful completion of ELA 11 and a teacher's recommendation

Length: Two Semesters

Materials:

Primary Textbook:

[*Perrine's Literature: Structure, Sound, and Sense*](#). Eleventh Edition. Arp, Thomas R. and Greg Johnson. Boston: Thompson Wadsworth, 2011.

Crime and Punishment by Fyodor Dostoevsky

Students are required to read this novel before the start of the course.

The textbook below is required to purchase for Semester B (Jan–May):

[*Cracking the AP English Literature & Composition Exam, 2017 Edition*](#)

ISBN-13: 978-1101919910

ISBN-10: 1101919914

Additional Novels:

Native Son by Richard Wright

The Color Purple by Alice Walker

One Hundred Years of Solitude by Gabriel Garcia Marquez

Orlando by Virginia Woolf

***Materials listed should be acquired by the student prior to beginning work in the course.**

AP European History AB

This AP study of European history since 1300 introduces students to economic, cultural, social and political developments. These developments played a fundamental role in shaping the world in which they live.

Second Semester will introduce students to the birth of modern political thought, Great Depression and World War II. They will study the Cold War and the collapse of communism and wrap up with the dawn of the 21st Century. Students will complete a project at the end of each unit with the final project being a critical analysis.

Prerequisite: None

Length: 2 Semesters

Materials: The Western Heritage: Combined Volume (9th Edition)

AP French Language and Culture AB

The AP* French Language and Culture course is an advanced language course in which students are directly prepared for the AP* French Language and Culture test. It uses as its foundation the three modes of communication: interpersonal, interpretive and presentational. The course is conducted almost exclusively in French. The course is based on the six themes required by the College Board: (1) global challenges, (2) science and technology, (3) contemporary life, (4) personal and public identities, (5) families and communities, and (6) beauty and aesthetics. The course teaches language structures in context and focuses on the development of fluency to convey meaning. Students explore culture in both contemporary and historical contexts to develop an awareness and appreciation of cultural products, practices, and

perspectives. Students should expect to listen to, read, and understand a wide-variety of authentic French-language materials and sources, demonstrate proficiency in interpersonal, interpretive, and presentational communication using French, gain knowledge and understanding of the cultures of the Francophone world, use French to connect with other disciplines and expand knowledge in a wide-variety of contexts, develop insight into the nature of the French language and its culture, and use French to participate in communities at home and around the world. The AP* French Language and Culture course is a college level course. The intensity, quality, and amount of course material can be compared to that of a third-year college course.

Major Concepts:

- Listen, read, understand, and interpret a wide-variety of authentic French-language materials and sources.
- Demonstrate proficiency in interpersonal, interpretive, and presentational communication using French.
- Gain knowledge and understanding of the cultures of the Francophone world.
- Use French to connect with other disciplines and expand knowledge in a wide-variety of contexts.
- Develop insight into the nature of the French language and its culture.
- Use French to participate in communities at home and around the world.

Prerequisite: French III (or equivalent) and a teacher/counselor recommendation

Length: Two Semesters

Materials: ISBN-13: 978-1438076034, ISBN-10: 1438076037

https://www.amazon.com/Barrons-French-Language-Culture-MP3/dp/1438076037/ref=sr_1_1?s=books&ie=UTF8&qid=1469715472&sr=1-1&keywords=ap+french+language+and+culture+2017

AP Government & Politics AB

This course examines the U.S. political system. Students in this course will discuss political ideology, the development of the political system and democratic institutions. Students should, according to the College Board, gain an “analytical perspective on government and politics in the United States.” Furthermore, students will study “both the general concepts used to interpret U.S. politics and the analysis of specific examples” throughout history. The class discussion will require that students acquire a “familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. politics.” The main emphasis of the course, however, is to be able to apply a basic comprehension of the U.S. political system to contemporary events.

Semester A

Major Concepts:

- Understanding both the historical and theoretical underpinnings of our system of government is useful in helping citizens understand its contemporary workings.
- Federalism involves the division and sharing of powers and responsibilities between and among national, state, and local governments. Federalism has evolved over time due to court decisions, social and economic concerns, and political actions.
- Civil liberties and civil rights have both limited and expanded the scope of government.
- Linkage institutions in our democracy include public opinion and the mass media. Political socialization determines the level and character of participation in the American political system.
- Linkage institutions in our democracy include political parties, elections, and the mass media. These function as intermediaries between the people and the government and impact the policy agenda.

Semester B

Major Concepts:

- Analysis and evaluation of the structure and organization of the United States Congress by considering membership, leadership, qualifications, and powers of both houses is critical to an informed citizenry.
- While the Constitution grants the president a few national security, legislative, administrative, and judicial powers, the president's power has increased over time.
- Bureaucrats shape policy as administrators, implementers, and regulators.
- The courts play a vital role in our system of checks and balances through the exercise of judicial review. Many Supreme Court decisions have had far-reaching effects on public policy throughout American history.
- The central function of government is to make and implement public policy.
- Entitlement programs are a formidable barrier to a balanced budget.

Prerequisite: None

Length: 2 Semesters

Materials: Government in America: People, Politics, and Policy AP Edition

AP Spanish Language AB

The AP* Spanish Language and Culture course is an advanced language course in which students are directly prepared for the AP* Spanish Language and Culture test. It uses as its foundation the three modes of communication: interpersonal, interpretive and presentational. The course is conducted almost exclusively in Spanish. The course is based on the six themes required by the College Board: (1) global challenges, (2) science and technology, (3) contemporary life, (4) personal and public identities, (5) families and communities, and (6) beauty and aesthetics. The course teaches language structures in context and focuses on the development of fluency to convey meaning. Students explore culture in both contemporary and historical contexts to develop an awareness and appreciation of cultural products, practices, and perspectives. Students should expect to listen to, read, and understand a wide-variety of authentic Spanish-language materials and sources, demonstrate proficiency in interpersonal, interpretive, and presentational communication using Spanish, gain knowledge and understanding of the cultures of Spanish speaking areas of the world, use Spanish to connect with other disciplines and expand knowledge in a wide-variety of contexts, develop insight into the nature of the Spanish language and its culture, and use Spanish to participate in communities at home and around the world. The AP* Spanish Language and Culture course is a college level course. The intensity, quality, and amount of course material can be compared to that of a third-year college course.

Major Concepts:

- Listen, read, understand, and interpret a wide-variety of authentic Spanish-language materials and sources.
- Demonstrate proficiency in interpersonal, interpretive, and presentational communication using Spanish.
- Gain knowledge and understanding of the cultures of the Spanish-speaking world.
- Use Spanish to connect with other disciplines and expand knowledge in a wide-variety of contexts.
- Develop insight into the nature of the Spanish language and its culture.
- Use Spanish to participate in communities at home and around the world.

Prerequisite: Spanish III (or equivalent) and a teacher/counselor recommendation

Length: Two Semesters

Materials: ISBN-13: 978-1101919996, ISBN-10: 110191999X

[https://www.amazon.com/Cracking-Spanish-Language-Culture-](https://www.amazon.com/Cracking-Spanish-Language-Culture-Preparation/dp/110191999X/ref=sr_1_1?s=books&ie=UTF8&qid=1469715652&sr=1-1&keywords=ISBN-13%3A+978-1101919996)

[Preparation/dp/110191999X/ref=sr_1_1?s=books&ie=UTF8&qid=1469715652&sr=1-1&keywords=ISBN-13%3A+978-1101919996](https://www.amazon.com/Cracking-Spanish-Language-Culture-Preparation/dp/110191999X/ref=sr_1_1?s=books&ie=UTF8&qid=1469715652&sr=1-1&keywords=ISBN-13%3A+978-1101919996)

AP US History AB

AP United States History is an intensive full year course divided into two semesters. The course focuses on exploring and analyzing American historical events, individuals and cultural trends. You will be prepared with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in United States History. This first semester course covers the time frame of 1492 to 1877, and the second semester course covers the time frame 1878 to present.

This course is designed to prepare students for the Advanced Placement exam in United States History that is administered by the College Board Educational testing center. The class satisfies the United States History requirement for graduation.

Semester A

Major Concepts:

- Master a broad body of historical knowledge from the founding of the first colonies to the present.
- Demonstrate an understanding of our historical chronology.
- Use and interpret historical documents including graphs, maps, charts, letters, and other primary resources to support an argument or point of view.
- Use critical thinking and analysis in discussions and assignments that demonstrate their understanding of major developments, events, and people in our history.
- Create an awareness of the role the United States plays in world economic, political and cultural influence.
- Prepare for the AP exam.

Semester B

Major Concepts:

- How economic depression dominated the era and reshaped political alignments and attitudes as the nation became less an isolationist and more a foreign diplomat as tragedy embroiled the United States more deeply in the European crisis, and despite Wilson's commitment to peace and neutrality, America went to war in 1917.
- How economic boom of the Post World War I era turned a society from prosperity to depression and reshaped society as the transition of the United States to the modern era begins. Despite the prosperity and progress of the era, the foundation was unstable and America went to war again 1942.

- How the United States grew from an isolationist nation to a nation of world power as Soviet-American tensions escalate due to the war.
- How the power of the American influence created an opportunity for the United States to emerge through the turbulence of the 1960s and crisis of confidence of the 1970s to a nation that ends the Cold War with increased prosperity in the 1980s with a growing economy in the 1990s.

Prerequisite: None

Length: 2 Semesters

Materials required: The American Pageant; Newman & Schmalbach's United States History, Preparing for the Advanced Placement Examination (2015)

Electives

Art Appreciation

What makes an artwork a masterpiece? Why do artists create art? What is the difference between Rococo and Art Nouveau? In this course, students will discover the answers to these questions and more. We examine the elements of art and principles of design, and explore how artists have used these elements and principles in the creation of art for centuries.

Major Concepts:

- Elements of Art & Principles of Design
- Ancient Art
- Aegean, Greek, Etruscan, and Roman Art
- Medieval Art
- The Renaissance to Rococo
- Pre-modern Art
- Modern Art
- Modernism and Post-modernism

Prerequisite: None

Length: One Semester

Art Careers

For every Broadway dancer, every television star, and every pop singer, there are countless people behind the scenes helping to make it happen. Arts Careers introduces students to the skills that are part of many fascinating careers in the arts. Studying the arts creates independent and innovative thinkers and many doors are open to an artist with the proper training.

Major Concepts:

- **Careers in acting:** Explore the positions and careers involved with the acting industry and discover how to pursue a position in this industry.
- **Careers in dance:** Discover careers in the dance industry and find out the steps needed to land yourself in the next big performance.
- **Careers in music:** Find out more about the music industry and the diverse careers that make up it.
- **Careers in visual arts:** Explore how painting, sculpting, and other visual arts create a diverse industry made up of varying positions and talents.
- **Careers in film, television and theatre:** Find out all of the careers associated with some of the world's most viewed arts: film, television and theatre. From Broadway to "The Simpsons", explore all of the different opportunities in these industries.

Prerequisite: None

Length: One Semester

Materials: Digital Camera (camera phone, DSLR and other devices with a camera is acceptable), Video Camera (camera phone, DSLR and other devices with a camera is acceptable), Video software (iMovie and other video editing software is acceptable)

Art History

Interpreting the origins of art gives students a unique perspective on their own work. In Art History, students will analyze various art forms including painting, sculpture and architecture over the changing periods of time. Beginning with study of the earliest cave paintings, students will create art to immerse themselves in the content and study movements and masters over changing periods of time.

Major Concepts:

- **Influences:** Understand the influence of prehistoric art as well as the connection between Greek, Roman and Egyptian works of art.
- **Artists:** Study the life and works of significant artists including Da Vinci, Michelangelo, Rembrandt, Rubens, Goya, Monet, Whistler and Toulouse-Lautrec.
- **Architecture:** Analyze influences on architecture from Greek, Roman, Byzantine, Romanesque and Gothic art.
- **Art Periods:** Explore the development and impact of major art periods including the Renaissance, Baroque, Arts and Crafts, Art Nouveau and Art Deco.
- **Movements:** Understand Neoclassicism, Romanticism, Realism and Impressionism and their influences on each other as well as modern art.
- **Activities:** Create hands-on art projects to further understanding.

Prerequisite: None

Length: One Semester

Materials: Drawing pencils, colored pencils, ruler, black marker fine-line, pencil sharpener, sketch pad, rubber eraser, construction paper, scissors, art knife, glue stick, poster board, paint brushes, watercolors

Basic Drawing

In Basic Drawing, students will experiment with several different art materials and tools to see what each tool can do best. Students will explore ordinary things around them to become more observant of the structures and meanings of things which can be seen in your their home and community. Your work will be your own study of the forms, textures, movements, and patterns of the things that you see every day. Each project and each lesson is based on the one before it; so always do the lessons in the order they are given. Be sure to follow the directions exactly regarding which materials, sizes, and subject matter to use for each project. Each lesson will be a study of a new way of drawing. The examples given will show only the method and materials to be used, never the same subject or size as the project assigned. The examples are never to be copied. An example will only show one way of using the technique described. By becoming more observant, by experimenting with new materials, and by exploring a variety of methods, students will continue to grow in artistic skill and enjoyment. Beyond fundamental skills are various levels of creativity. Each lesson provides room for expressing the technical skill learned in a unique, creative way.

Major Concepts:

- Utilize various drawing tools including: pencil, conté, pen, and brush.
- Draw images using various techniques including: crosshatching, contour line, gesture, shading, washes, and texture.
- Demonstrate the illusion of space and depth on a two-dimensional surface with the use of: scale, placement, overlapping, linear perspective, and aerial perspective.
- Illustrate the full value range possible in various drawing tools and use value to define space and images in projects.
- Demonstrate an awareness of line quality that will add to the visual description of subjects in drawings.
- Solve design issues for final images of landscape, interior, still life, animal, and figure drawings. This will be accomplished by arranging images and elements so the viewer will see the meaning or impact you intended.
- Gain clarity and self-confidence in visual decision-making.
- Solve assignment challenges with planning, practice, patience, and the use of techniques introduced in the course.

Prerequisite: None

Length: One Semester

Materials: 1 drawing pencil, 2B, 1 round hair brush #10, 1 bottle India Ink, black, 1 Pilot Varsity Pen, self-contained black ink, 2 conté crayons: white, black, 1 Art gum eraser, 1 white, wax Crayola crayon, 40 sheets white drawing paper, 9x12, 5 sheets construction paper, 9x12, black, 15 sheets grey construction paper, 9x12, 14 large envelopes, 10 x 13, 2 sheets white watercolor paper (rough, heavy, stiff), 2 sheets rice paper 9 1/2 x12 (soft, translucent), 25 sheets newsprint, 9x12, 1 bottle white glue (obtain locally)

Basic Web Design

In this course, students will learn how to design a beautiful and functional website. Students will learn how to take their design and translate it into a live website using Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS) programming languages. HTML5 and CSS3 will be the standard versions used in the class. Students will understand design components of websites, including the use of color, layout and when to use different techniques, typography rules, and the importance of imagery. At the conclusion of the course, students will present a website to the class. Upon completion of this course, each student will have hands-on experience creating a fully functioning website. Students do not need to have a previous technical background with HTML or CSS prior to taking this course.

Prerequisite: None

Length: One Semester

Software and Materials: HTML Text Editor (TextEdit, Notepad, Text), Image Editing Software (Pixlr, GIMP), Webhosting and basic in browser FTP(Neocities)

Beginning Painting

This course introduces students to classical and contemporary painting, techniques and concepts, with emphasis on the understanding of its formal language and the fundamentals of artistic expression. Painting from still life, landscape, and life models from observation will be geared towards realism; at the same time, various other painting styles could be explored. Color theory, linear perspective, compositional structure, figure/ground relationships, visual perception, spatial concepts, and critical thinking skills will all be emphasized. Students will study and research major painting styles and movements in historical context. The hope is that students will use this global approach to develop a “critical eye” in evaluation of contemporary painting. Acrylic and watercolors are the mediums used in this class. The main emphasis of this course is to encourage and nourish individuality and creativity.

Major Concepts:

- Demonstrate skills in creating painted works with acrylic medium.
- Show skills in creating painted works with watercolor medium, including washes and dry brush techniques.
- Solve assignment challenges with planning, practice, patience, and the use of techniques introduced in the course.
- Master color mixing in two painting mediums.
- Identify and apply color harmonies.
- Gain awareness of art movements and artists throughout the history of painting.
- Enhance good design principles with a focus on the composition of painted assignments.
- Display clarity and self-confidence in visual decision-making.

Prerequisite: None

Length: One Semester

Materials: Chromacryl tube of acrylic paints, round brush, flat brush, watercolor paints, set of markers, painting paper (the pad of paper may be labeled watercolor paper. Please use for all paintings, including acrylic), newsprint paper (the paper is for sketches and testing paints. Do not use for painting projects.), 1-4b pencil, 7 project cardstock pages

Career Planning

The Career Planning course guides students through the essential elements of the career planning process and the development of a defined career plan. Students will consider the many factors that impact career success and satisfaction. Using a process of investigation, research, and self-discovery, students will acquire the understandings critical to the career planning process. Upon completion of the course, students will have created a practical and comprehensive college or career transition portfolio that reflects their skills and abilities, as well as their interests, values, and goals.

Major Concepts:

- Knowing Thyself
 - Career Options
 - Income and Opportunity
 - Education and Training Plans
 - Research Technology
 - Work Ready
 - Personal Career Project

Prerequisite: None

Length: One Semester

Child Development

The study of children is an important topic for everyone to learn. All students are influenced by their childhood and upbringing; those experiences have made them who they are. When students learn to understand children, communication with them is more efficient. This also has the potential for students to learn more about themselves in the process. During this course, students will learn about the various stages of child development and the ways children grow and change. More importantly, students will learn how to understand children and their various needs. Maybe some students will want to work with children in the future as a result. They will discover that teachers are not the only people who work with kids; other possible career choices are a pediatrician, a counselor, or even a social worker just to name a few. Whatever students have set for their career goals, learning about children will get them one step closer to that chosen career path.

Major Concepts:

- Families and Child Development
- Nutrition and Prenatal Development
- Infant Growth and Development
- Toddler Growth and Development
- Preschooler Growth and Development
- School-Aged Children

Prerequisite: None

Length: One Semester

Computer Basics

Computers have not only transformed the workplace, but have also become the method of delivery for education. Knowing some simple skills, such as keyboarding and the use of typical office software, will make their education much more productive. This course is designed to teach keyboarding to the level of proficiency needed to communicate successfully online. This course also teaches the use of word processing, drawing, spreadsheet, presentation, and Internet software. Finally, the capabilities, ethics, safety, and rules for Internet use are introduced. After taking this course, students should be able to use the computer productively for their school, work, and everyday lives.

Major Concepts:

- Keyboarding
- Word Processing
- Drawing Program
- Spreadsheet Program
- Presentation Program
- Web Site Creation
- Intermediate Word Processing

Prerequisite: None

Length: One Semester

Contemporary Novels

In each novel the student will see how the human spirit is capable of rising above and overcoming seemingly-impossible circumstances. These contemporary novels contain realistic situations and language. In addition to the novels listed, the student will read another contemporary novel that the instructor approves. MLA (Modern Language Association) documentation is required on all papers submitted.

Major Concepts:

- An Introduction to the Contemporary Novel
- *Picture Bride*, by Yoshiko Uchida
- *Night*, by Elie Weisel
- *To Kill a Mockingbird*, by Harper Lee
- *Fallen Angels*, by Walter Dean Myers
- *The Old Man and the Sea*, by Ernest Hemingway
- *Rita Hayworth and the Shawshank Redemption*, by Stephen King
- *The Novel of Your Choice*

Prerequisite: Language Arts 9

Length: One Semester

Materials: *Picture Bride* by Yoshiko Uchida, *Night* by Elie Weisel, *To Kill a Mocking Bird* by Harper Lee, *Fallen Angels* by Walter Dean Myers, *The Old Man and The Sea* by Ernest Hemingway, *Art Pupil: A Novella in Different Seasons (Rita Hayworth and the Shawshank Redemptions)* by Stephen King

Digital Media A&B

Semester A

In this course, students will learn basic principles of audio and video design and production. The concepts of understanding audience and copyright are used throughout the course. Students will learn to create a script for an audio production. They will also produce an audio project

utilizing Audacity. For the video production portion of the course students will learn about the benefits of storyboards along with other pre-production, production, and post-production techniques. Students will create a 60 second video utilizing a web 2.0 editing tool called WeVideo. The course will culminate with the creation of an online digital portfolio that can be used to showcase the student's work to colleges or potential employers.

Major Concepts:

- Ethical and legal issues, as well as target audience are important to consider when creating new media.
- You will be able to create an audio file by focusing on the creative process and technique so that your end product meets the needs of your audience.
- You can apply various techniques to improve video quality and can share video files with and others online.
- Sharing your work on the Internet can be useful and exciting, but there are many things to consider when deciding how and when to share.

Semester B

Our 21st century society and culture is media-laden. Digital Media B is a course to help students develop digital literacy with vector drawings, animations, still pictures and augmented reality experiences. It is crucial students know how to create their own media to convey a specific message or satisfy a particular purpose for a predetermined audience. Students will learn how to how to create vector drawings, animations, create and edit pictures and picture products and augmented reality experiences to solve real-world problems using creativity, attention to task and audience, and ethical and responsible digital practices.

Major Concepts:

- Vector drawings and models are geometric and algorithmic visual representations, which can be designed and constructed to satisfy a specific purpose for a specific audience with demographics and culture in mind.
- Animation is moving visual representation, which can be designed and constructed, to using principles of good design.
- Still picture and still picture composites are visual representations, which can be designed and constructed with principles of good design.
- Augmented reality experiences enhance the physical, environment in real-time by computer-generated sensory input (simulation).
- Sharing your work on the Internet can be useful and exciting, but there are many things to consider when deciding how and when to share.

Materials: Digital Camera

Prerequisite: None

Length: Two Semesters

Film and Television

The culture of cinema and television tells a unique story of history and innovation. Students in Film and Television will be introduced to industry icons and stars of the big and small screen. By studying and writing about film and television, students will analyze trends in technology and culture and better understand how to be an informed viewer.

Major Concepts:

- **Changes in the industry:** Understand of the role of technology and how it evolves the industry.
- **Actors:** Explore the contributions of actors including Brando, Hepburn, Kelly, Stewart, Poitier, Bogart, Newman, Taylor, Eastwood, Monroe, Ball and Washington.
- **Industry leaders:** Analyze the impact of industry leaders like MGM, Paramount, Hitchcock, Disney, Capra, Wells, Coppola, Pollock, Lumet, Lucas, Spielberg, Scorsese, Lumet, Wilder, Marshall, Spelling and Carson.
- **Societal impact:** Study the relationship of history and society with the evolution of film and television, the development of talk shows, news and sports and motion picture distribution.
- **Movements:** Explain significant developments including the Golden Age of Hollywood, Hollywood Blacklist, children's television, 24 hour news, ESPN and streaming television.

Prerequisite: None

Length: One Semester

Financial Literacy

The purpose of this course is to provide students with the essential understandings about managing their money. The focus will be on sources of personal income, saving, and spending patterns. Students will learn such things as how to budget, how to make large purchases, how to invest, and how to minimize taxes.

Major Concepts:

- Consumers
- Budgeting

- Financial Institutions
- Personal Finance
- Personal Credit
- Online banking
- Identity theft
- Stocks and Mutual Funds
- Retirement Planning
- Insurance
- College Funding

Prerequisite: None

Length: One Semester

Graphic Design

Graphic Design is an introduction to elements of design, spatial relationships, typography and imagery as they apply to practical visual solutions for self-promotion, resumes, logo design, Web design, and sequential systems. In this course, the student explores the basic foundations of design through a series of visual projects that explore the principles and elements of design. Students will work both with analog and digital media as they explore two-dimensional and three-dimensional design along with color theory. This course will help develop and explore a student's ability to communicate visually.

In each lesson students acquire new skills, which take some effort. Beyond fundamental skills are various levels of creativity. Each lesson provides room for a student to express the technical skill learned in his or her own creative way.

Major Concepts:

- Show skills in lettering.
- Demonstrate techniques in layout design that include balance, margins, airspace, emphasis, and clarity.
- Solve assignment challenges with planning, practice, patience, and the use of techniques introduced in the course.
- Demonstrate awareness of art movements and artists throughout the history of design.
- Demonstrate good design principles with a focus on the composition of assignments.
- Demonstrate increased clarity and self-confidence in visual decision-making.
- Use increased awareness of visual elements in order to create a more successful design.
- Fill the role of a designer to enhance living by applying a developed sense of aesthetics and utility to the creation of a wide variety of images.
- Demonstrate visual literacy in discernment in the media of today.

Prerequisite: None

Length: One Semester

Materials: (Students will need a computer or laptop for this course, tablets are not sufficient)

Choose one software application: [Adobe Illustrator](#) (there is a cost associated, Mac OS X, Windows), [Adobe Photoshop](#) (there is a cost associated, Mac OS X, Windows), [GIMP](#) (free downloadable, Mac OS X, Windows, GNU/Linux), [Pixlr](#) (free browser-based program, Mac OS X, Windows, GNU/Linux, Chrome OS)

Hands-on materials: triangle, Exacto knife, markers, pencil, good paper note pad, colored pencils, dotted line paper, glue stick, ruler, scanner or camera so you can transmit photos/images of your finished work.

Health Careers

In this course students explore a variety of career options related to the healthcare field, including medicine, nursing, physical therapy, pharmacy, dental careers, child care, sports medicine, personal training, social work, psychology, and more. Students will learn about various options within each field, what each of these jobs entails, and the education and knowledge required to be successful. In addition, they will focus on basic job skills and information that would aid them in health care and other career paths.

Prerequisite: None

Length: One Semester

Individual and Team Sports

To improve and maintain optimum health, it is necessary for people of all ages to participate in physical exercise. There is little doubt that, in addition to students in schools, the number of adults participating in sports and recreational activities in the United States has increased in recent years. Physical education is much more than just fitness and exercise. A well-planned program will cause you to think and express your emotions about different situations. In addition, a good program can make a valuable contribution to your education. These experiences will help you develop a sense of wellness.

Emphasis in this course is placed on the value of these sports as possible lifetime activities and on creating a clear explanation of the rules and basic principles of a variety of sports. The sports covered in this course are archery, bicycling, golf, skiing, tennis, volleyball, baseball, basketball, football, hockey, and soccer.

Information about the playing area and equipment, basic rules, safety considerations, and terminology for each sport are included in the discussions. For the most part, the information presented in each lesson applies to sports programs throughout most sections of the United States.

Major Concepts:

- Develop values regarding appreciation of, attitudes about, and interest in sports.
- Recognize that exercise and lifetime activities are important.
- Foster courtesy and sportsmanship in sports.
- Identify the basic equipment, demonstrate skills, understand basic rules, and observe the principles of safety pertaining to the following sports: Archery, Golf, Bicycling, Alpine Skiing, Tennis, Volleyball, Baseball, Basketball, Football, Hockey, Soccer.

Prerequisite: None

Length: One Semester

Introduction to Business

This course introduces students to the basic business concepts that will help them understand how a business survives in today's economy and the role that consumers play in the same economy. Students will learn how to balance a checkbook, save for the future, and use credit wisely. Students will also learn how to create a resume and how to participate in a job interview.

Major Concepts:

- Educated consumers understand that economic decisions can be made in many different ways, each having an opportunity cost associated with it.
- Money management is an essential part of a successful personal financial plan.
- Effective business ownership includes understanding the activities businesses perform, forms of business ownership, all aspects of marketing, business' responsibilities to their community. and the role government plays with business.
- Career research and planning will help you match interests and skills to the ideal career path.

Prerequisite: None

Length: One Semester

Introduction to Nursing

This two semester course introduces students to the field of nursing. In the first semester students will learn about the history and evolution of nursing, education and licensure requirements, career path options, and nursing responsibilities. Students will also focus on foundational information such as basic anatomy, physiology, medical terminology, pharmacology, first aid, and disease prevention.

In semester two students will examine various nursing theories, as well as focus on the nursing process, including assessment, diagnosis, and treatment options. Students will also learn about professional and legal standards and ethics. Additional skills of communication, teaching, time and stress management, patient safety, crisis management will be included.

Prerequisite: None

Length: Two Semesters

JavaScript

In this course, students will learn how to start programming with JavaScript. Students will learn the basics of JavaScript including testing, functions, objects, arrays, loops, conditional code, operators and syntax basics. Students will learn timing and animations, and how to debug. The class will conclude with a robust project that incorporates everything they learned in the semester.

Students should have a working knowledge of HTML and CSS prior to taking this course.

Major Concepts:

- Use variable naming rules and JavaScript data types.
- Use and understand expressions and operators.
- Understand and use objects and arrays.

- Define functions and methods.
- Understand the Document Object Model (DOM).
- Understand how to Get Input and Output.
- Managing web page Styles using JavaScript and CSS.
- Handle Web Page Events
- Script Tables
- Script Forms

Prerequisite: Basic Web Design

Length: One Semester

Materials: Students will need a computer or laptop for this course; tablets are not sufficient. Some YouTube videos are embedded within course.

HTML text editor (choose one): TextEdit; for use on MAC and comes with OS, Notepad; for use on Windows and comes with OS, Text; for use on Chromebook and free app download from the Google Store. Image Editing Software (choose one): Pixlr <https://pixlr.com/editor/> (in-browser), GIMP <http://www.gimp.org/downloads/> (downloadable program), Webhosting and basic in browser FTP: Neocities <https://www.neocities.org>

Journalism

This course is designed to prepare you to become a student of journalism and media. The work we do here will equip you with the critical skills you must have to succeed in high school media, college media, and beyond. We will read a variety of journalistic material and do a great deal of news writing. We will also look at journalism from legal, ethical, and historic vantage points. Expect to complete numerous writing activities in a variety of styles including editorial, hard news, feature, review, and more. If you participate actively, you will gain tremendous skills that will serve you for the rest of your life. Individual and group project will also be a part of this class. This course is a project based course and does not include traditional tests, unit level understanding is assessed through unit projects.

Major Concepts:

- Effective journalism requires creating a story that is readily understandable to a mass audience.
- Journalistic ethics and the laws that govern journalists is a topic of constant debate.
- Responsible journalism involves meticulous researching and verifying of facts and data.
- Editorial writing contains both facts and opinions and is similar to persuasive writing.
- Features contain elements of major news stories, but also contain descriptive details.

Prerequisite: None

Length: One Semester

Life Management Skills

The course concentrates on being healthy and focuses on physical development, mental and emotional stress, relationships, substance awareness, social disease awareness, and personal safety. The purpose of this course is to develop and enhance critical life management skills necessary to make sound decisions and take positive actions for healthy and effective living.

Major Concepts:

- Mental and Emotional Health
- Social and Consumer Health
- Nutrition
- Preventing Disease
- First Aid and CPR
- Human Sexuality
- Drug and Alcohol Awareness

Prerequisite: None

Length: One Semester

Media and Communication

From banner ads to billboards, newspaper articles, and Facebook feeds, people are constantly sharing ideas. This course looks at the many facets of mass media. Students will learn how the media shapes every aspect of our lives. We examine the role of newspapers, books, magazines, radio, movies, television, and the growing influence of Facebook, YouTube, and Twitter.

Major Concepts:

- Introduction to Mass Media and Communication
- Print Media: Newspapers, Magazines, & Books
- Electronic Media: Radio, Movies, and Televisions
- The Internet & Social Media
- The Powerful Influence of Media
- Advertising and Public Relations
- Media Law and Regulations

- The Ethics of Media

Prerequisite: None

Length: One Semester

Medical Terminology

In this course, students learn and practice first aid procedures for a variety of common conditions, including muscular, skeletal, and soft tissue injuries. In addition, students learn how to appropriately respond to a variety of emergency situations. They also learn the procedures for choking and CPR for infants, children, and adults. In addition to emergency response, students will explore personal, household, and outdoor safety, and disaster preparedness.

Major Concepts:

- Word Structure & Anatomical Organization
- Senses, Skeletal & Muscular Systems
- Cardio, Lymphatic, & Respiratory Systems
- Digestive & Nervous Systems
- Endocrine & Reproductive Systems

Prerequisite: None

Length: One Semester

Medicine

This course provides students with an introduction to healthcare, with emphasis on modern, clinical medicine. Students review basic human anatomy and physiology, then study major health concerns affecting people in the U.S. and the world. This comprehensive, 10-unit course examines such topics as infectious diseases, cancer, traumatic injuries, and healthcare career opportunities.

Major Concepts:

- Anatomy/Physiology
- Human Development
- Nutrition
- Medical Ethics
- Infectious Diseases
- Cancer
- Traumatic Injuries
- Mental Illnesses
- Medicine in Practice

Prerequisite: None

Length: One Semester

Music Appreciation

Whether a sheet of music seems like a foreign language to you or music is your life, Music Appreciation has something to offer. This course begins with an overview of the building blocks of music, such as rhythm, acoustics, instruments, and orchestration. Next you will learn about the role of music in society, the aesthetics of music, and how to evaluate a piece of music. From there, you will study music history, beginning with medieval chants and leading all the way to present-day movie music. Finally, you will study music from around the world. This course is a must for aspiring musicians and avid listeners alike.

Major Concepts:

- Building Blocks of Music
- Aesthetics and Evaluating Music
- Early/Renaissance Music
- Baroque
- Classical
- Romantic
- 20th Century and Contemporary
- Music Around the World

Prerequisite: None

Length: One Semester

Photojournalism

A powerful image can tell an eloquent story without words. Students in Photojournalism will be introduced to some of the pioneers who set the standards for this unique way of storytelling. As they study the principal types of photojournalism and the ethical responsibilities a photojournalist has behind the lens, students will develop their own storytelling skills through their writing and their photographs.

Major Concepts:

- **Ethics:** Understand the role and responsibilities of the photographer as storyteller, including ethical and legal considerations.
 - **Storytelling:** Develop an understanding of different ways to tell a story through images and the use of elements of art and design, technology and manipulation.
 - **Publications:** Analyze the use of photojournalism in media and specific publications over time.
 - **Artists:** Explore the works of key photojournalists and the different types of photojournalism.
 - **Equipment:** Work with basic camera functions and equipment.

Prerequisite: None

Length: One Semester

Photo Manipulation

Manipulating an image is its own unique form of art. By using accessible software tools and applications including Photoshop, students in Photo Manipulation will learn strategies for creating complex imagery. Students will incorporate the principles of design while creating unique new concepts in their art.

Major Concepts:

- **Programs:** Create photo manipulations using a variety of different programs and applications.
- **Ethics:** Define copyright and privacy issues in photo manipulation, editing and stock image use.
- **Comprehension:** Comprehend the process of learning new and evolving software programs.
- **History:** Analyze the history and impact of photo manipulation and evolution of equipment.
- **Design:** Understand the differences between photo editing and manipulation, the complexities of photo manipulation and essential design principles.
- **Artists:** Improve creativity by studying other works and artists.

Prerequisite: None

Length: One Semester

Materials: Smartphone, digital camera, access to multiple software programs and applications, including GIMP, Photoshop, Google NIK, Funny Photomaker, Pixlr, PicsArt, PhotoScape, Paint.NET (access to all programs is short-term, not the life of the course)

Relationships

In this world of casual Internet communication, it is still important to have the formal skills to develop strong personal relationships with others. Topics of this course include human development and relationships with family, friends, and co-workers. It also covers communication and conflict management skills as they relate to friendships, dating, marriage, family, and the work environment.

Major Concepts:

- Your Individuality
- Your Growth and Personality
- Your Response to Your Environment
- Your Life Plan
- Roadblocks in Life
- Relationships and Family
- Change and Communication in Families
- Friendships
- Marriage
- On-the-Job Relationships

Prerequisite: None

Length: One Semester

Research

The purpose of this course is to enable students to develop fundamental knowledge of the steps in the research process. This multidisciplinary course offers students the ability to choose among research topics as they relate to various fields such as science, history, and literature. The course promotes research skills and students gain the ability to evaluate research claims made in the media, literature and other sources.

Major Concepts:

- Technology
- Science & Technology
- Quantitative Research
- Case Studies
- Journal Articles
- Powerpoint Presentations

Prerequisite: None

Length: One Semester

Study Skills and Strategies

The Study Skills and Strategies course equips students with skills and understandings critical to effective learning. Using a unique approach to the traditional topic of study skills, this course weaves understanding regarding the role of the brain in learning into the instruction of discrete learning skills and strategies. Moving beyond a list of good tips and ideas, the Study Skills and Strategies course will challenge students to develop intentional approaches to learning. They will be required to make connections between the strategies and skills they learn in this course and the implementation of those strategies and skills in their other coursework. Upon completion of the course, students will have learned a variety of specific learning skills and strategies, gained greater understanding of their own learning preferences, and become prepared to develop and implement specific learning and study plans for any academic course or other learning needs.

Major Concepts:

- The Science of Learning
- Self-management: Time and Organization
- Learn through Listening
- Learn through Reading
- Learn through Researching
- Learn through Writing
- Evidence of Learning through Testing

Prerequisite: None

Length: One Semester

World of STEAM

Each aspect of the arts relies on science and technology. In The World of STEAM, students will learn why the eye sees color, how a dancer uses gravity and what makes a sound wave travel. The arts, science and technology are intertwined, now more than ever. Understanding the science behind the art will elevate students to a new level of creativity.

Major Concepts:

- **Anatomy:** Discover the relationship between art and the human anatomy.
- **Light:** Explore reflection and absorption and break down the science to better apply it to your artistic works.
- **Geometry:** Understand the basics of drawing by using geometric shapes to create a balanced composition.
- **Water:** Take a closer look at the science of water and its importance in the arts.
- **Technology:** Learn about the technology behind microphones, lighting and other equipment used in performances.
- **Music and math:** Breakdown the math behind music to better understand music notation and organization.
- **Sound:** Learn about the science behind sound waves and how they travel.
- **Biology:** Take a step by step approach to breaking down the biology of dancing.
- **Engineering:** Analyze how math and science is used in architecture and building design.

Prerequisite: None

Length: One Semester

Health and Physical Education

First Aid & Safety

In this course, students learn and practice first aid procedures for a variety of common conditions, including muscular, skeletal, and soft tissue injuries. In addition, students learn how to appropriately respond to a variety of emergency situations. They also learn the procedures for choking and CPR for infants, children, and adults. In addition to emergency response, students will explore personal, household, and outdoor safety, and disaster preparedness.

Prerequisite: None
Length: One semester

Flexibility Training

This course focuses on the often-neglected fitness component of flexibility. Students establish their fitness level, set goals, and design their own flexibility training program. They study muscular anatomy and learn specific exercises to stretch each muscle or muscle group. Students focus on proper posture and technique while training. They also gain an understanding of how to apply the FITT principles to flexibility training. This course explores aspects of static, isometric, and dynamic stretching, as well as touch on aspects of yoga and Pilates. This course also discusses good nutrition and effective cross-training. Students take a pre- and post fitness assessment. Throughout this course students also participate in a weekly fitness program involving flexibility training, as well as elements of cardio and strength training.

Major Concepts:

- Fitness Assessment
- Principles and Technique
- Types of Flexibility Training
- Yoga and Pilates
- Cross-Training and Nutrition
- Post Assessment

Prerequisite: Physical Education
Length: One Semester

Materials:

Heart Rate Monitor
MOVBand
SPRI Resistance Tubing Kit

Health

Semester A:

In this course, students acquire the knowledge and skills they need to lead a healthy life. Semester A focuses on the impact of personal decisions on the student's own health. Students learn how to find, evaluate, and use reliable information related to a variety of health topics. They also study the basic science behind nutrition, exercise, stress, and psychology, and examine how these factors affect a person's overall health. Each lesson in the course guides students in applying what they have learned in the lesson to their own lives and choices—and gives them a chance to discuss the topic with peers and instructors.

Major Concepts:

- Analyzing Health Information
- Strategies for Coping with Stress
- Psychological/Mental Health

- Suicide Risks and Prevention
- Effects of Nutrition on Overall Health
- Practical Approaches to Better Nutrition
- Physical Fitness

Semester B:

Semester B focuses on the developmental aspects of being human and healthy. Students learn about some of the more dramatic changes that the human body experiences from birth to death. They explore topics related to aging and sexuality and identify ways to remain healthy and safe throughout life's major events and challenges. As in Semester A, this part of the course emphasizes what students can do to improve or maintain their own health and encourages them to be a positive influence on family and friends. Each lesson helps identify ways that students might use what they have learned in the lesson in their own lives. As in semester A, students discuss lesson topics with peers and/or an instructor.

Major Concepts:

- Substance Abuse
- Sexuality and Reproductive Health
- Infectious Diseases
- Cancer Types and Risk Reduction
- Human Development and Aging
- Death and Dying
- Stages of Grief

Prerequisite: None

Length: Two Semesters

Nutrition

This course takes students through a comprehensive study of nutritional principles and guidelines. Students will learn about world-wide views of nutrition, nutrient requirements, physiological processes, food labeling, healthy weight management, diet related diseases, food handling, nutrition for different populations, and more. Students will gain important knowledge and skills to aid them in attaining and maintaining a healthy and nutritious lifestyle.

Major Concepts:

- Nutrition Basics
- Energy Nutrients
- Non-Energy Nutrients
- Energy Balance
- Disorders and Diseases
- Consumer Nutrition
- Nutrition for Life

Prerequisite: None

Length: One Semester

Physical Education

Physical Education encompasses learning how to live and maintain a healthy lifestyle. This course covers physical fitness, why it is important, how to have a healthy attitude, and how to stick with a healthy game plan. In this ever-changing world, physical fitness becomes more important and more difficult to find the time for. This course allows the student to discover how to make physical fitness not only a part of their daily life, but also see that it is attainable. This course leads the student to discover healthy behaviors and sets the tone for physical fitness as well as healthy exercise. PE for a Healthy Lifestyle will examine the emotional, physical, and scientific factors that influence physical performance. This course is designed for anyone, ranging from the beginner to advanced abilities.

Semester A

Major Concepts:

- Fitness and Health Concepts
- FITT Principles
- Biomechanics Principles
- Health and Fitness Plans
- Weight Training
- Nutrition

Semester B

Major Concepts:

- Sportsmanship & Safety
- Sports Strategies
- Skill-Related Fitness

- Movement Skills
- Individual & Team Excellence
- Rhythmic Movement

Prerequisite: None

Length: Two Semesters

Running

This course is appropriate for beginning, intermediate, and advanced runners and offers a variety of training schedules for each. In addition to reviewing the fundamental principles of fitness, students learn about goals and motivation, levels of training, running mechanics, safety and injury prevention, appropriate attire, running in the elements, good nutrition and hydration, and effective cross-training. While this course focuses mainly on running for fun and fitness, it also briefly explores the realm of competitive racing. Students take a pre- and post fitness assessment. Throughout this course students also participate in a weekly fitness program involving running, as well as elements of resistance training and flexibility.

Major Concepts:

- Fitness Assessment and Training Plan
- Running Mechanics
- Safety and Equipment
- The Running Scene
- Total Wellness
- Post Assessment

Prerequisite: None

Length: One Semester

Materials:

Heart Rate Monitor
SPRI Resistance Tubing Kit

Strength Training

This course focuses on the fitness components of muscular strength and endurance. Students establish their fitness level, set goals, and design their own resistance training program. They study muscular anatomy and learn specific exercises to strengthen each muscle or muscle group. Students focus on proper posture and technique while training. They also gain an understanding of how to apply the FITT principles and other fundamental exercise principles, such as progression and overload, to strength training. This course also discusses good nutrition and effective cross-training. Students take a pre- and post fitness assessment. Throughout this course students also participate in a weekly fitness program involving strength training, as well as elements of cardio and flexibility.

Major Concepts:

- Fitness Assessment and Training Plan
- Principles and Technique
- Upper Body and Lower Body Strength Training
- Injury Prevention and Treatment
- Post Assessment

Prerequisite: None

Length: One Semester

Materials:

SPRI Resistance Tubing Kit

Walking Fitness

This course helps students establish a regular walking program for health and fitness. Walking is appropriate for students of all fitness levels and is a great way to maintain a moderately active lifestyle. In addition to reviewing fundamental principles of fitness, students learn about goals and motivation, levels of training, walking mechanics, safety and injury prevention, appropriate attire, walking in the elements, good nutrition and hydration, and effective cross-training. Students take a pre- and post fitness assessment. Throughout this course students also participate in a weekly fitness program involving walking, as well as elements of resistance training and flexibility.

Major Concepts:

- Fitness Assessment and Training Plan
- Walking Mechanics
- Safety and Equipment
- The Walking Scene
- Overall Wellness
- Post Assessment

Prerequisite: Fitness Fundamentals I

Length: One Semester

Materials:

SPRI Resistance Tubing Kit

Honors

American Government Honors

American Government Honors provides the student with the basic knowledge of the history and philosophy of the United States government, and the principles that guide our democracy. The student examines the United States Constitution to answer questions and determine the facts of government. The course focuses on the functions and duties of the three branches of government, which are the legislative, executive, and judicial. Special attention is given to political participation, the rights and responsibilities of citizenship, and government systems of the world. American Government Honors references the view of political institutions to explore the history, organization, and functions of the U.S. government. It offers students learning opportunities that build one on another. A goal of the course is for the student to develop the critical skills of analysis, synthesis, and evaluation in a demanding and thoughtful academic setting. Students are encouraged to use their knowledge of the organizations and management of governing to develop their own views on current political issues. Then the students are taught how to apply what they have learned into civic action. The course looks closely at the political knowledge and values of the country as it gives students a look into the problems faced by presidents, congressional representatives, and other political activists. It also covers the roles of political parties, interest groups, and the media in shaping the government. The Supreme Court is presented as the voice of reason in the balance of powers. Students are encouraged to perform at higher levels as they analyze historical documents and additional readings, work with a set of facts arranged by theme, become skillful in note taking, and join in student discussions. Students develop and demonstrate their writing skills by preparing extended research-based papers and through participation in community service.

Major Concepts:

- Foundations of Government
- Origins of American Government
- Constitution
- Federalism
- Congress: the Legislative Branch
- Presidency: the Executive Branch
- Federal Courts: the Judicial Branch
- The Political Process
- Civil Liberties
- Comparative Political and Economic Systems

Prerequisite: None

Length: One Semester

Economics Honors

Economics Honors provides the student with basic knowledge of the history and philosophy of the United States economy and the economic principles that guide our democracy. Students demonstrate problem solving, and their understanding of the processes for economic reasoning, by applying economic principles to decisions they make as consumers, workers, and members of local and larger societies. This, in turn, enables the student to understand the issues and public policies that affect economic, political, and cultural systems. The course focuses on the functions and duties of the three branches of government, which are the legislative, executive, and judicial as they relate to the economy. Special attention is given to the role of the Federal Reserve System in administering the United States economy.

Major Concepts:

- Foundations of Economics
- Microeconomics

- . Macro Economics
- . Global Economics
- . Personal Finance

Projects:

- . Fundamental Economic Policies and Procedures
- . Microeconomics as the Market Behavior of Individuals and Firms
- . Macroeconomic Policies as the Economic Behavior of the Nation
- . The Role of Macroeconomic Institutions
- . The World as a Global Marketplace
- . Personal Financial Future Planning

Prerequisite: None

Length: One Semester

Geometry Honors

Semester A

Geometry is the study of the measurement of the world. What makes Geometry so interesting is the relationship of these measures to each other. An in-depth exploration of logic and reasoning leads the student to practical applications. Through discovery and predictions, students gain insight into the geometry of everyday life. In this course, the student observes how the five postulates of Euclid create a whole schema of the world. Non-Euclidean assumptions are briefly explored. The student gains skills in reasoning, using logic tables that are usually reserved for more advanced studies of mathematics. Students are also required to produce geometric constructions that correlate to theorems, using simple tools such as the drawing compass. The course ensures all students have the opportunity to succeed through engaging activities and contact with the teacher. Each lesson has several activities that all contribute to an exploration of new mathematical concepts. Projects provide students with hands-on experience. The activities and discussions also help the student think creatively and critically about each topic. At every point in the course, teacher feedback is provided and available.

Major Concepts:

- . Building Blocks of Geometry
- . Formulas and Reasoning
- . Proofs
- . Lines and Triangles
- . Congruence
- . Properties of Polygons

Semester B

In Honors Geometry B, the student continues the study of shapes and transformations begun in Geometry A - Honors. The course reviews proportions and similarity. Then, it emphasizes planar coordinates and solid figures. The course also introduces trigonometry, the measurement of the triangle and the proportional relation of its angles. Throughout the course, the student has the opportunity to approach concepts from various viewpoints, including hands-on exercises, games, and constructions, all while applying deductive reasoning. In class discussions and special projects, the student exercises critical and creative thinking. Most importantly, through logic and exploration, the student sees the practical connections of geometry with day-to-day living.

Major Concepts:

- . Proportions and Similarity
- . Perimeter Circumference and Area
- . Circles
- . Trigonometry
- . Solid Geometry
- . Transformations

Prerequisite: Honors Algebra 1 or Algebra 1

Length: Two Semesters

Physics Honors

Semester A

Physics delves into the interactions of matter and energy, from the subatomic level of quarks and leptons to the astronomical level of the Big Bang and black holes. This first course on physics focuses on the ordinary interactions seen in our everyday world. The model of Newton's laws of motion applies to all such interactions and serves as a basis for analyzing the forces of gravity, friction, heat, and other forms of energy. This first course deals with motion, forces, momentum, heat, and waves, along with their subtopics, such as work and energy. A short description of this physics course might be "engineering physics," since the most obvious applications of everyday physics is in engineering machines and facilities. The first Honors course in physics examines the concepts of forces, motion, and acceleration, momentum, heat, work, power, and energy in a more in-depth manner. The honors student will have more opportunity to explore such topics fully, gaining skill in applying quantitative methods and analyzing the implications of physical forces. Much of the emphasis in the course will be on communicating through graphs and mathematical models. Successful completion of the course will prepare the student to do well in a collegiate course in physics or other sciences.

Major Concepts:

- Motion and Forces
- Laws of Motion
- Work, Energy and Power
- Manipulating Forces
- Heat and Energy
- Heat Waves

Semester B

Physics B Honors is the continuation of the introductory course, Physics A Honors. Physics B Honors investigates the energy of waves and their fields, electromagnetism, nuclear reactions, and subatomic physics. Whereas Physics A Honors mostly deals with classical mechanics, Physics B Honors examines waves and quantum mechanics, areas of physics that are not so familiar to most students. Physics B Honors takes you into the world of the very small to see how physicists discovered that the laws that govern tiny things explain how larger masses act. These introductory courses familiarize you with the topics of interest in physics research and make connections to the everyday world of physical laws and phenomena. This course is rigorous but offers you support in the way of audiovisual presentations, interactive mentoring, and video labs. You will be asked to perform laboratory experiments and solve calculations on your own, with instructor support. Finally, you will discover that the discussion topics will broaden your outlook toward the relevance of physics in the world today. As an honors course, you will have additional practice activities, computer simulations, and enhanced projects to help you analyze, apply, and evaluate the concepts of physics. You should recognize, particularly as you study particle physics and cosmology, that physics is a work in progress. Every day, new evidence and new explanations arise to explain what happens in the world of the very small and very large. Reconciling our models of the cosmological universe with those of the smallest particles is currently one of physics' biggest challenges. Your serious thoughts on the issues may be very insightful and helpful.

Major Concepts:

- Waves and Light
- Optics
- Electrostatics
- Electrical Current
- A New Look at the Atom
- The Particle Zoo

Prerequisite: Algebra 1 and Geometry

Length: Two Semesters

World History Honors

Semester A: Civilization to Industrialization

In World History A Honors, students explore ancient civilizations in order to understand the geographic, political, economic, and social characteristics of people. By developing their understanding of the past, students can better understand the present and determine their direction for the future. In this course, students explore the first civilization in Mesopotamia; the ancient civilizations of China, Greece, and

Rome; the rise of the Byzantine Empire; and the feudal system in Europe and Japan. They also learn about the Renaissance and Reformation, the Enlightenment Period, and the scientific and democratic revolutions in Europe that spread to the new nation of America. The last part of the course concentrates on the Napoleonic Era, the Industrial Revolution in England, and the rise of imperialism in Europe. In addition, historical analysis and current events are featured in the final lessons.

Major Concepts:

- Early Civilizations
- World Religions
- Legacy of China
- Roots of Democracy
- Rise and Fall of Rome
- Byzantine Culture
- Feudalism
- The Crusades
- Development of Trade
- Impact of the Renaissance
- Reformation
- Atlantic Slave Trade
- Absolute Monarchs
- Scientific Revolution
- Enlightenment
- Napoleonic France
- Independence Movements
- Industrial Revolution
- Economic Theory
- Western Imperialism

Semester B: Conflicts in Modern Civilization

In this course, students examine the factors leading up to World War I, the rise of nationalism, and the worldwide economic depression. The causes of War II, and the military strategies involved are also analyzed. The advances in modern warfare for both World Wars are a special focus. In addition, students learn about the struggle between the ideologies of democracy and communism as well as the change in the balance of power after World War II in which countries fought for self-rule. An appraisal of the Cold War and the fall of the Soviet Union are included. Later lessons find students exploring the roots of terrorism and the conflicts in the Middle East, Eastern Europe, and Asia. The final unit of the course centers on the new global economy, advances in science and technology, and current environmental issues. Students assess primary and secondary source materials in depth. Projects and class discussions challenge students to predict outcomes, draw conclusions, and make choices based upon critical thinking.

Major Concepts:

- World War I
- Russian Revolution
- Colonialism
- Great Depression
- Rise of Fascism
- World War II
- Holocaust
- Cold War
- Independence Movements
- Collapse of the USSR
- Globalization
- Ecology

Prerequisite: None

Length: Two Semesters

Mathematics

Accounting

In this course, you will explore accounting, including investigating accounting careers. You will learn basic accounting skills and procedures both with and without a computer for general journals, general ledgers, cash payments journals, cash receipts journals, sales journals, accounts payable ledgers, and accounts receivable ledgers. You will also learn how to reconcile a bank statement and to prepare payroll records. This course covers the basic principles of financial accounting for individuals and for companies with attention to both the mathematical formulas and to the ethical side of accounting. Each unit has practical exercises including a project at the end of the unit.

Major Concepts:

- Accounting is the universal language of business careers.
- The accounting equation provides a detailed description of the financial condition of a business entity.

- It is important to keep up-to-date accounting balances to provide information for reports used by people both inside and outside the business.
- Payroll is important to everyone.
- When you are paid at your job, you want to be sure the amounts are correct.
- The business also wants to be sure that all employees be paid in a legal and correct manner.

Prerequisite: None

Length: One Semester

Consumer Math

This course focuses on the mathematics involved in making wise consumer decisions. Students explore the many ways in which mathematics affects their daily lives. The first semester will cover paychecks and wages, taxes, insurance, budgets, bank accounts, credit cards, interest calculations, and comparison-shopping. Second semester topics include vehicle and home purchasing, investing, and business and employee management.

Semester A

Major Concepts:

- Solve basic arithmetic problems that require addition, subtraction, multiplication, and division of whole numbers, fractions and decimals.
- Estimate and round numbers.
- Calculate your earned income along with deductions and fringe benefits.
- Compute percentages, ratios, and proportions.
- Keep accurate banking and checking account records.
- Formulate a personal budget which includes expenses (utilities, insurance, taxes) incurred with home ownership.
- Identify the cost of buying on credit.
- Point out the importance of wise consumer buying, saving and investing.

Semester B

Major Concepts:

- Use customary and metric units of length, volume, and weight to estimate measures and to convert from one system to another.
- Construct and read bar, line, circle, and pictographs as well as interpret information on a map.
- Compute the cost of remodeling a room such as area, number and cost of tile, amount and cost of carpeting, and amount and cost of painting.
- Compute net pay, deductions, federal and state income taxes.
- Compute premiums for life insurance and health insurance and understand Social Security benefits.
- Compute sticker price, financing, insurance, depreciation, and maintenance for an automobile.
- Read and interpret bus and airline schedules.
- Determine the cost of a trip including gasoline, meals, and hotels and use a mileage chart to calculate travel distances.
- Use unit prices, calorie charts, and cost of preparing a meal when grocery shopping.
- Compute the retail price of an item as well as the cost of renting an item.
- Explore methods of dividing profits/losses in a business partnership.
- Compute profit and loss on a stock transaction.

Prerequisite: None

Length: Two Semesters

Science

Marine Science

About 70% of the Earth is covered by water. Even today, much of the world's oceans remain unexplored. Marine scientists make exciting new discoveries about marine life every day. In this course, students will discover the vast network of life that exists beneath the ocean's surface and study the impact that humans have on the oceans.

Major Concepts:

- Humans and the Ocean
- Plankton, Plants, and Algae
- Animals of the Sea
- Habitats and Ecology
- Life at Extremes
- Intelligence in the Sea
- Futures in Marine Science

Prerequisite: None

Length: One Semester

Paleontology

From Godzilla to Jurassic Park, dinosaurs continue to captivate us. In this course, students will learn about the fascinating creatures both large and small that roamed the earth before modern man. Watch interesting videos from experts at The Royal Tyrrell Museum, a leading paleontology research facility, and discover how the field of paleontology continues to provide amazing insight into early life on earth.

Major Concepts:

- The Foundation in Geology
- Life and Adaptation
- Natural Selection and Evolution
- Extinction and Fossils
- Taxonomy
- The Dinosaurs
- Prehistoric Creatures
- Paleontology: Past, Present, and Future

Prerequisite: None

Length: One Semester

Renewable Energy

The earth's population is growing rapidly, and we need to find new, innovative ways to ensure that we are able to provide for our global energy needs. Students will look at the reasons why sustainability is important, take a balanced and evidence-based look at climate change, and learn new ways that we can harness renewable resources.

Major Concepts:

- Renewable Energy and Sustainability: Overview
- Renewable Energy Options
- Assessing Renewable Energy Technologies
- The Future of Renewable Energy
- Aspects of Sustainability
- Sustainable Societies
- Biodiversity
- Smart Growth and the Built Environment

Prerequisite: None

Length: One Semester

Space Exploration

In 1961, Yuri Gagarin became the first human to go to space. In 1969, Neil Armstrong became the first human to step on the moon. This comprehensive course will examine the history and future of space travel. Find out how we have put people in space in the past, and what it will take for us to reach new frontiers, including Mars and beyond.

Major Concepts:

- The Space Race
- Launch and Landing Systems
- Spacecraft Systems
- Manned Spaceflight
- Unmanned Spaceflight
- Low Earth Orbit
- Beyond Earth Orbit

Prerequisite: None

Length: One Semester

Social Studies

American Government

The course will begin with foundations of our government in which both the principles and significant primary source documents will be studied. A novel unit on My Dearest Friend: The Letters of Abigail and John Adams will deepen student understanding of our second president and the contributions he made as one of our founders. The Constitution and linkage institutions (elections, campaigns, media, interest groups, public opinion, and political parties) will also be explored.

Major Concepts:

- There are different theories posited for the creation of the first governments and that John Locke's Social Contract theory is the most relevant to informing many of our founding principles.
- Our system of government, and our Constitution specifically, was strongly influenced by our English heritage and colonial experience.
- Historical interpretation involves an analysis of cause and result.
- Perspective helps to define the attributes of historical comprehension.
- The U.S. Constitution both outlines the powers of government and limits governmental power so that individual rights and liberties are protected.
- In American democracy, citizens' political ideology and behavior is influenced by a number of socializing influences.
- Linkage institutions in our democracy include political parties, interest groups, and the mass media. These function as intermediaries between the people and the government.
- Understanding the electoral process and the importance of exercising the franchise is an important civic duty.
- Suffrage has been extended to include previously discriminated groups through social movements, amendments, and legislation.

Prerequisite: None

Length: One semester

Civics

In this course students will understand the significance of government, law, and politics. They will examine the United States foundational documents and how they shaped the United States government. Students will examine the purposes and functions of federal, state and local government, the justice system, political systems the environment, and the economy. Learners will evaluate their role and civic responsibility to their families, communities, and country including voting and being a productive member of society. Students will get to know leaders and influential people that have championed many causes including civil rights and the environment. Learners will also learn proper ways to interact in society including interpersonal skills and respecting differences in others including disabilities. Learners will follow a step-by-step approach for successfully completing each lesson, which includes textbook reading, interactive activities, supplemental reading, lecture, video clips, and PowerPoint presentations to enhance and reinforce learning. Learners receive frequent feedback from teacher and peers through discussions. By the end of the course students will have a deep understanding of their civic responsibilities as well as the difference one individual can make in society.

Major Concepts:

- Foundation of America's Political System
- American Citizenship

- Federal Government
- State Government
- The Justice System
- Local Government and the Community
- Civics and How it Relates to the Environment
- Civics and How it Relates to the Economy

Prerequisite: None

Length: One semester

Economics

This course introduces the principles and the applications of economics in everyday life. Students develop an understanding of limited resources, and compare it with unlimited wants and needs. Students learn how individual and national economic decisions are made to allocate goods and services among competing users. Students apply economic principles to think and problem solve. The study of Economics uses the view of economic institutions and policies to explore the history, organization, and functions of the U.S. government in controlling our economy. It offers students learning opportunities that build one on another. A goal of the course is for the student to develop the critical skills of analysis, synthesis, and evaluation in a demanding and thoughtful academic setting. Students are encouraged to use their knowledge of the policies and institutions of economics to develop their own views on current economic and monetary issues. They are taught how to apply what they have learned into personal financial activities. The course looks closely at the economic knowledge and values of the country and gives students a look into the problems faced by presidents, and congressional representatives. It also covers the roles of political activists, political parties, interest groups, and the media in shaping the U. S. economy. The Supreme Court is presented as the *voice of reason* in the balance of powers. Students are encouraged to perform at higher levels as they are presented with historical documents and additional readings, work with a set of facts arranged by theme, become skillful in note-taking, and join in student discussions. Students develop and demonstrate their writing skills by preparing extended research-based papers.

Major Concepts:

- Foundations of Economics
- Microeconomics
- Macro Economics
- Global Economics
- Personal Finance

Prerequisite: None

Length: One semester

World Languages

HS Chinese 1

Students begin their introduction to Chinese by focusing on the four key areas of foreign language study: listening, speaking, reading, and writing. The course represents an ideal blend of language learning pedagogy and online learning. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Both Chinese characters and pinyin are presented together throughout the course and specific character practices are introduced after the first quarter. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, participate in simple conversations and respond appropriately to basic conversational prompts, analyze and compare cultural practices, products, and perspectives of various Chinese-speaking countries, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Major Concepts:

- Engage in language learning
- Master common vocabulary terms and phrases
- Comprehend a wide range of grammar patterns
- Participate in simple conversations and respond appropriately to basic conversational prompts
- Generate language incorporating basic vocabulary and grammar patterns
- Read, write, speak, and listen for meaning in basic Chinese
- Analyze and compare cultural practices, products, and perspectives of various Chinese-speaking countries
- Regularly assess progress in proficiency through quizzes, tests, and speaking/writing submissions

Prerequisite: None

Length: Two Semesters

HS Chinese 2

Students continue their study of Chinese by further expanding their knowledge of key vocabulary topics and grammar concepts. Students not only begin to comprehend listening and reading passages more fully, but they also are able to express themselves more meaningfully in both speaking and writing. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Character recognition and practice are a key focus of the course and students are expected to learn several characters each unit. However, pinyin is still presented with characters throughout the course to aid in listening and reading comprehension. Students should expect to be actively engaged in their own language learning, understand common vocabulary terms and phrases, use a wide range of grammar patterns in their speaking and writing, participate in conversations and respond appropriately to conversational prompts, analyze and compare cultural practices, products, and perspectives of various Chinese-speaking countries, and take frequent assessments where their language progression can be monitored. By semester 2, the course is conducted almost entirely in Chinese. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Major Concepts:

- Engage in language learning
- Review and expand their study of common vocabulary topics
- Gain a deeper understanding of a wide range of grammar patterns
- Participate in expanded conversations and respond appropriately to a variety of conversational prompts
- Communicate more meaningfully using correct vocabulary and grammatical structures
- Read, write, speak, and listen for meaning in Chinese

- Analyze and compare cultural practices, products, and perspectives of various Chinese-speaking countries
- Regularly assess progress in proficiency through quizzes, tests, and speaking/writing submissions

Prerequisite: Chinese I, or equivalent

Length: Two Semesters

HS Latin 1

Since mastering a classical language presents different challenges from learning a spoken world language, students learn Latin through ancient, time-honored, classical language approaches which include repetition, parsing, written composition, and listening exercises. These techniques, combined with a modern multimedia approach to learning grammar, syntax, and vocabulary, provide students with a strong foundation for learning Latin. Each unit consists of a new vocabulary theme and grammar concept, reading comprehension activities, writing activities, multimedia culture, history, and mythology presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on engaging with authentic classical Latin through weekly encounters with ancient passages from such prestigious authors as Virgil, Ovid, and Lucretius. The curriculum concurs with the Cambridge school of Latin; therefore, students will learn ancient high classical styles of pronunciation and grammar in lieu of generally less sophisticated medieval styles, making it possible for students to comprehend the most Latin from the widest range of time periods. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, understand and analyze the cultural and historical contexts of the ancient sources they study, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Major Concepts:

- Engage in language learning
- Master common vocabulary terms and phrases
- Comprehend a wide range of grammar patterns
- Engage with primary sources from ancient Roman authors
- Generate language incorporating basic vocabulary and grammar patterns
- Read and write for meaning in basic Latin
- Analyze and compare cultural practices, products, and perspectives of various Greek and Roman cultures
- Regularly assess progress in proficiency through quizzes, tests, and speaking/writing submissions

Prerequisite: None

Length: Two Semesters

HS Latin 2

Students continue with their study of Latin through ancient, time-honored, classical language approaches which include repetition, parsing, written composition, and listening exercises. These techniques, combined with a modern multimedia approach to learning grammar, syntax, and vocabulary, prepare students for a deeper study of Latin. Each unit consists of a new vocabulary theme and grammar concept, reading comprehension activities, writing activities, multimedia culture, history, and mythology presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on engaging with authentic classical Latin through weekly encounters with ancient passages from such prestigious authors as Virgil, Ovid, and Lucretius. The curriculum concurs with the Cambridge school of Latin; therefore, students will learn ancient high classical styles of pronunciation and grammar in lieu of generally less sophisticated medieval styles, making it possible for students to comprehend the most Latin from the widest range of time periods. Students should expect to be actively engaged in their own language learning, understand and use common vocabulary terms and phrases, comprehend a wide range of grammar patterns, understand and analyze the cultural and historical contexts of the ancient sources they study, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Major Concepts:

- Engage in language learning
- Review and expand their study of common vocabulary topics
- Gain a deeper understanding of a wide range of grammar patterns
- Translate Latin more fluently
- Analyze and compare myths from the ancient world with the students' own culture and experiences today
- Regularly assess progress in proficiency through quizzes, tests, and speaking/writing submissions

Prerequisite: Latin I, or equivalent

Length: Two Semesters