Course Catalog

HIGH SCHOOL(9-12)

MATHEMATICS OVERVIEW

* Pre-Algebra-This fundamental class is a bridge math course for students who are not ready for Algebra 1 in the 9th grade. This course will focus on foundational mathematical skills. (Credits earned in Intervention Math 9 will fulfill part of the 30 credits in mathematics necessary for graduation.)
* Whole Number Operations
* Order of Operations
* Fractions/Decimals/Percentages
* Probabilities (including permutations and combinations)
* Statistics (mean, median, mode, range, and graphs)
* Planes, Points, Lines, and Angles
* Polygons (types of polygons and several properties)
* Perimeter, Area, and Volume
* Square Roots
* Pythagorean Theorem
* Absolute Value
* Integer Operations
* Basic Graphing
* Operations using Rational Numbers
* One- and Two-Step Equations
* Basic Inequalities
* Algebra I (full year 1 credit) - This course will focus on developing understanding of mathematical relationships through variables and unknowns that represent numbers and quantities. Students will extend their understanding of algebraic structure and real number systems while simplifying and solving expressions, equations, and inequalities. Students will build functions in modeling contexts in different forms (such as linear, quadratic, and simple exponential functions). Students will use formal means of assessing how modes fit data (including regressions and graphical representations). The major goal of this course is to assist students in developing skills necessary to meet the algebra content standards. Successful completion of Algebra 1 will satisfy the Algebra high school graduation requirement.
* Algebraic Expressions and Equations
* Proportions, Inequalities, and Absolute Values
* Introduction to Functions
* Linear Functions and Systems
* Exponential Properties and Functions
* Factoring
* Quadratic, Inverse, and Square Root Functions
* Statistical Analysis
* Geometry (full year 1 credit) - This course will focus on geometric reasoning and the study of plane figures using precise definitions and developing structured proofs. Students will extend their understanding of transformations through the concepts of congruence and similarity with different plane figures such as triangles and other polygons. Students will be introduced to the concepts of right triangle trigonometry and properties of circles. Students will explore probability concepts and use probability in real world situations.
* Algebra II (full year 1 credit) - This course builds on content and learning from previous courses. The sequence from variable to equation to function is extended into using functions (polynomial, rational radical, and trigonometric) as models to represent quantitative relationships. Students’ statistics knowledge is extended to understand normal distribution and to make inferences based on sampling, experiments and observational studies. The major goal of this class is to help students develop their organizational ability to solve mathematical problems and to prepare them to continue their studies in mathematics.
* Integrated Mathematics I (full year 1 credit)
* Integrated Mathematics II (full year 1 credit)
* Integrated Mathematics III (full year 1 credit)
* Business Math (full year 1 credit) - This course meets Algebra 1 standards, integrating Algebra concepts with Business applications. What does Algebra have to do with business? Business Algebra answers this question as students learn the role that algebraic concepts such as linear equations, inequalities, and quadratic functions play in the work world of business financial management. Business Algebra I can be part of a Business and Finance pathway in a sequence of business, finance, economics, and accounting courses.
* Wages and Salaries
* Taxes, Insurance, and Budgeting
* Banking
* Stocks and Bonds
* Credit
* Mortgages and Real Estate
* Vehicle Costs
* Health Insurance
* Profits and Pricing
* Manufacturing – Break-Even Analysis and Quality Control
* Employees – Salary, Benefits and Insurance
* Profits, Sticker Price, and Discounts
* Inventory Considerations and Business Expenses
* Sales Potential, Market Share and Sales Projections
* Balance Sheet and Analysis
* Taxes, Borrowing, and Inflation
* Trigonometry (one semester 0,5 credit) - This semester course is designed as an introduction to topics of trigonometry with a focus on preparing students who will continue their study in mathematics. Students will develop and extend their skills in working with trigonometric functions and their applications.
* Pre-Calculus (full year 1 credit) - This course is designed to assist students in developing an understanding of analytic geometry, elementary functions, probability and statistics, linear algebra, sequences and series, and introductory differential calculus. The major goal of the class is to prepare students for college-level courses.
* Functions
* Parallel and Perpendicular Lines
* Analytic Trigonometry
* Vectors, Parametric, and Polar
* Systems and Matrices
* Conics
* Binomial Theorem, Regression
* Finding Limits
* Tangent Lines
* Area Under a Curve

LANGUAGE ARTS/READING

* High School English I (full year 1 credit) - The goal of this course is to integrate the following English Language Arts domains: reading, writing, speaking and listening, and language using the state-adopted, board-approved curriculum. This course provides ample opportunities to analyze, synthesize, and evaluate universal concepts through the close reading of both literary and informational texts. Additionally, students utilize the writing process to generate narrative, informative/explanatory, and argumentative text types in order to enhance their writing fluency and effectiveness. Students consistently engage in a variety of research-based instructional strategies to meet the rigorous demands of the state standards. Teachers strategically differentiate instruction to meet the needs of all students.
* Plot, Setting, Conflict, and Irony
* Characterization and Theme
* Point of View, Narrator and Voice
* Cause and Effect
* Autobiography, Memoirs, and Biography
* Persuasive, Expository, and Descriptive Essays
* Speech in Writing
* Editorials
* Elements of Poetry and Poetic Devices
* Drama
* High School English II (full year 1 credit) - The goal of this course is to integrate the following English Language Arts domains: reading, writing, speaking and listening, and language using the state-adopted, board-approved curriculum. This course provides ample opportunities to analyze, synthesize, and evaluate universal concepts through the close reading of both literary and informational texts. Additionally, students utilize the writing process to generate narrative, informative/explanatory, and argumentative text types in order to enhance their writing fluency and effectiveness. Students consistently engage in a variety of research-based instructional strategies to meet the rigorous demands of the state standards. Teachers strategically differentiate instruction to meet the needs of all students.
* Elements of Short Story
* Writing Science Fiction and Mystery
* Writing Biography, Autobiography, and Memoirs
* Grammar and Vocabulary
* Writing Personal, Expository, and Persuasive Essays
* Writing Persuasive Speeches
* Form, Language, Imagery, and Sound Devices in Poetry
* Drama - Comedy and Tragedy
* American Literature-English III (full year 1 credit) - The goal of this course is to integrate the following English Language Arts domains: reading, writing, speaking and listening, and language using the state-adopted, board-approved curriculum. This course provides ample opportunities to analyze, synthesize, and evaluate universal concepts through the close reading of both literary and informational texts. Additionally, students utilize the writing process to generate narrative, informative/explanatory, and argumentative text types in order to enhance their writing fluency and effectiveness. Students consistently engage in a variety of research-based instructional strategies to meet the rigorous demands of the state standards. Teachers strategically differentiate instruction to meet the needs of all students.
* Early America
* Genres of Writing
* American Romanticism (The Transcendentalists)
* American Romanticism (Gothic Literature)
* Regionalism and Realism
* The Modernist Movement
* Annotated Bibliography
* British Literature-English IV (full year 1 credit) - course for 11th and 12th grade students that examines British Literature as it has developed through the ages against an historical backdrop. It exposes students to classic works of fiction and nonfiction, including epics, legends, poetry, histories, novels, and drama from early Anglo-Saxon texts to post-modern pieces. In addition to the study of literature, the course includes four units focused on writing to give students practice in critical thinking which they translate into written analysis. A strong addition to the writing units is a detailed step-by-step guide through the process of writing a research report, reinforcing students’ preparation for their future in college and/or a career.
* College Prep-English IV (full year 1 credit) - As students transition from High School to College or into the work force, their ability to apply language arts skills in real-world scenarios becomes essential. In the College Prep-English IV course, students learn practical strategies for effective writing in college or on the job, including how to write scholarly essays, concise technical reports, compelling resumes, and professional business emails. Grammar, vocabulary, and spelling tips round out the course to empower college/employment-bound students for success in their post-high school endeavors. Course topics include:
* Organizing and Writing a Resume
* Reading for Comprehension
* Overview of Types of Writing
* Persuasive and Scholarly Essays
* Research Papers
* Grammar and Vocabulary
* Making Effective Presentations
* Writing Opinions and Technical Papers
* Writing Reports
* Writing Effective Emails

FOREIGN LANGUAGES

* French I (full year 1 credit) - is for high school students taking their first course in this language with a goal of mastering French as a second language. This course has been A-G Approved through the University of California. Course topics include:
* Introduction to French
* Greetings
* Numbers
* Vocabulary
* Verbs and Verb Conjugations
* Currency
* Familiar Nouns
* Basic Conversation
* French Culture
* French II (full year 1 credit) - course is recommended for students having a basic understanding of the French language who want to further their understanding and develop fluency. Students extend their vocabulary and their understanding of subject-verb agreement. Students experience French used in conversations and learn how to construct basic phrases needed to effectively communicate in the language.
* German I (full year 1 credit) - for students with a goal of mastering German as a second language. Students will study vocabulary, greetings, sentence structure, basic grammar, and gain practical knowledge necessary for real-world conversation. Common everyday scenarios relating to the home and family, activities, school, shopping, making plans, and grocery shopping are all addressed.
* German II (full year 1 credit) - expands students' understanding of the German language and culture, presenting language organized by topic and expanding grammar and vocabulary. Students are taught about past and future tense, as well as how to talk about the body, clothing, shopping, the market, vacation, travel, sports, and recreation, etc.
* Discover Spanish-Part 1 (full year 1 credit) - incorporates the syntax, vocabulary and pronunciation needed to comprehend Spanish in an everyday environment. This course is ideal for students learning Spanish for the first time, or for a student needing extra practice and help improving their understanding of the Spanish language. Discover Spanish can be used in a stand-alone environment or to supplement teacher instruction in the classroom in a blended learning environment.
* Spanish I (full year 1 credit) - In this class, students will learn basic vocabulary and grammar concepts. Additionally, students will gain cultural knowledge of Spanish speaking cultures around the globe. Students will learn to communicate with others and talk about a variety of topics such as leisure activities and hobbies, their classes and school life, their families, as well as parties they may plan for various holidays and important dates. This course has been A-G Approved through the University of California.
* Spanish II (full year 1 credit) - In this class, students will learn basic vocabulary and grammar concepts. Additionally, students will gain cultural knowledge of Spanish speaking cultures around the globe. Students will learn to communicate with others and talk about a variety of topics such as daily activities and routines, travel, their childhood, news and emergency situations, and fairy tales and legends.
* Spanish III (full year 1 credit) - students will gain cultural knowledge of Spanish speaking cultures around the globe. Students will learn to communicate with others and talk about a variety of topics such as past travels and vacations, an array of environmental topics, professions, parts of a city, and the importance of volunteerism and service learning opportunities.

ENGLISH AS SECOND LANGUAGE

* Discover English(High School Part 1-ESL)- This course is designed for students wishing to master English as a second language. The course is taught using the Discover method, making it the right choice for students of any native language with little or no English proficiency. Discover English includes the syntax, vocabulary and pronunciation needed to understand English in everyday life. This course is ideal for first-time English learners or ESL students who need more practice and help. Discover English can be used in a stand-alone environment or as a complement to teacher instruction in class in a mixed learning environment.

EXAM PREP

* College Exam Math Prep (one semester 0,5 credit) - course has been specially developed to help students prepare to take the math portion of the ACT or SAT college entrance exam. Students watch as problems similar to those presented in these exams are solved in the high-quality video lessons. After each lesson students are presented with several similar problems to enable them to practice the concepts that they have just reviewed. This course is an excellent review for all students preparing to take either the ACT or SAT. Course topics include:
* Sets
* Number Bases
* Fractions, Decimals, and Percentages
* Permutations and Combinations
* Linear Equations
* Polynomials
* Quadratics
* Application Problems
* Exponents
* Radicals
* Distance and Mid-Point Formulas
* Conic Sections
* Systems of Equations
* Exponential and Logarithmic Functions
* Sequences and Series
* Complex Numbers
* Polygons
* Pythagorean Theorem
* Special Right Triangles (30-60-90 and 45-45-90)
* Area and Perimeter
* Trigonometric Functions
* Graphs of Trigonometric Functions
* High School Equivalency Exam Prep-Mathematics (full year 1 credit) - This course focuses on Mathematical reasoning, including precision and fluency in executing and applying core computations, as well as learning to apply quantitative and algebraic reasoning skills within a wide range of academic, real-life, and workplace contexts. Specific areas include the following:
* Basics of mathematics
* Fractions, decimals, percents, and probability
* Basics of Geometry, perimeter, area, surface area, and volume
* Pre-Algebra
* Integers, rational numbers, and properties of Algebra
* Algebra
* Expressions, order of operations, and sets
* Absolute value, square roots, squares, and irrationals
* Equations and their applications
* Graphing, inequalities, and systems of equations
* Polynomials and operations with polynomials
* Rational expressions
* High School Equivalency Exam Prep-Reading/Language Arts (full year 1 credit) - This course focuses on reasoning through language arts via an integrated approach, reading carefully, writing about reading material, and the demonstration of good command of English language conventions. This Reading/Language Arts course is to help prepare students to take the GED, HiSet, or TASC exam. Areas covered include the following:
* Comprehension and summarization of details and ideas
* Inference of implied ideas
* Creation of evidence-based generalizations based on textual details
* Editing for effective support of logic and clarity
* Paragraph development and organizational skills
* Editing to ensure proper sentence structure
* High School Equivalency Exam Prep-Science (full year 1 credit) - This course emphasizes the ability to apply scientific reasoning skills to three areas: Life Science, Physical Science, and Earth and Space Science, with understanding of scientific content pertaining to the themes of health and the human body, and energy. This Science course is to help prepare students to take the GED, HiSet, or TASC exam. Specific areas covered include the following:
* Properties and types of matter, and changes in matter
* Forms of energy – heat, electricity, and waves
* Forces, motion, work and machines
* Alternative energy sources
* Plate tectonics, earthquakes, mountains, and volcanoes
* Earth in space, comets, asteroids, stars, star systems, and galaxies
* Ecology
* Cell structure, function, and transport
* Cellular energy, cell division, genetics, and evolution
* High School Equivalency Exam Prep-Social Studies (full year 1 credit) - This course places emphasis on applying reasoning skills in social studies to content drawn from four areas: Civics and Government, United States History, Economics, and Geography and the World. This includes textual analysis and understanding, skills in data representation and inference, and solving problems in the context of social studies. This Social Studies course is to help prepare students to take the GED, HiSet, or TASC exam. Areas covered include the following:
* The foundations of the United States Government
* The Constitution
* Checks and balances
* The Bill of Rights and Amendments
* Political participation and parties
* How elections work, and the influence of mass media
* Historical foundations and nationalism
* Reformation, and the Union in Peril
* The First World War
* World War II
* Post-War America and Civil Rights
* Contemporary Issues: 1945 to the Present
* Basics of Personal Finance
* Basics of Geography

SCIENCE OVERVIEW

* General Biology (full year 1 credit) - provides students with an introduction to the study of life. Students explore DNA, cells, organisms, and ecosystems. This course covers the requirements for life all over the globe and the interactions between living and non-living matter. Students will learn about the evolution of organisms and how genes are passed on through generations.
* Honors Biology (full year 1 credit) - This course is designed to meet the College Board criteria for A.P. Biology. Students enrolled in this course will perform college level assignments and labs as specified by the College Board. Upon completion of this course students are encouraged to take the College Board exam for A.P. Biology. Students interested in advanced studies in biology at the college level are encouraged to take this course. This course is an in-depth study of the field of biology. The following areas are emphasized: biochemistry, cellular biology, ecology, evolution and the organisms. The class will consist mostly of lab exercises and discussion, and requires a large time commitment from the student.
* General Chemistry (full year 1 credit) - provides students with a basic introduction to chemistry. Students are introduced to various forms of matter. They learn about the basic components of the atom and electron orbitals. They will become familiar with the Periodic Table and learn how to use it to predict properties of specific elements. They will learn about chemical bonding, practice stoichiometry, and learn basic reactions. A brief introduction of organic chemistry is also included.
* Honors Chemistry (full year 1 credit) - provides students with an in-depth introduction to chemistry. Students are introduced to various forms of matter. They learn about the basic components of the atom and electron orbitals. They will become familiar with the Periodic Table and learn how to use it to predict properties of specific elements. They will learn about chemical bonding, practice stoichiometry, and learn basic reactions. An introduction to organic chemistry is also included. Additional lessons have been included in this course to provide students with the more in-depth understanding that they will require for AP Chemistry.
* General Physics (full year 1 credit) - explores the nature of our physical environment and explains how natural phenomena occur in terms of mathematics. He leads students through an investigation of matter and its motion through time and space, along with related concepts such as energy and force.
* Honors Physics (full year 1 credit) - This course is designed to meet the College Board criteria for AP Physics. Students enrolled in this course will perform college level assignments and labs as specified by the College Board requirements. Students are encouraged to take the AP Physics exam. Students should have a high degree of interest in scientific studies. Strong Algebra and trigonometry skills are necessary to support the development of key concepts.
* Environmental Science (full year 1 credit) - provides high school students an introduction to the study of the natural world and how it is influenced by human activity. Students will explore the patterns and processes of Earth and how these are affected by natural and human impacts. They will study environmental problems that our planet is facing today and various efforts to solve these problems, ultimately understanding the need for a sustainable future.
* Science and Innovation

STEM

* STEM 1: Introduction to Coding (full year 1 credit) - students are taught how to program using the Blockly coding language. With Blockly, everything is done with little building blocks that snap together in an intuitive way. Each block represents a small piece of code that together make an entire program. Coding with blocks allows students to focus on the fundamental principles of coding without the challenging initial learning curve required for traditional programming languages. Students will be led through activities with incrementally more advanced building blocks. Each block is similar in structure to the syntax and style of real world programming languages. As students learn to program by snapping blocks together, they are laying a foundation for more advanced programming languages. Students will learn about conditional statements, loops, and functions.
* STEM 2: JavaScript (full year 1 credit) - ​​is the second coding course taken. Students are taught how to code first with Blockly and then with JavaScript source code. With Blockly, everything is done using little building blocks that snap together in an intuitive way. The blocks are used to help introduce students to the JavaScript syntax. Students will study fundamental programming concepts, as well as practice writing their own source code.
* STEM 3: Electronics and Coding (full year 1 credit) - students are taught the fundamental principles and aspects of electronics, as well as basic coding for electronics. Utilizing the JavaScript language and an on-screen circuit-board simulator, students are able to code simulated real-world electronics. They learn about circuits, schematics, and circuit boards, as well as electrical current, resistance/resistors, and seven-segment displays. They study electromagnets, electric motors, and electric generators, as well as semiconductors and microcontrollers. Students develop their understanding of the JavaScript language, studying code statements, logic statements, and breaks, as well as switch statements. They explore variables, operators, data types, and functions. They discuss arrays, objects, and digital signals.
* Introduction to Java (full year 1 credit) - students are taught basic programming using the Java coding language. They use the jGrasp editor/compiler along with the Java JDK to design and code, and to learn about variables, operations, data types, input and output, libraries, selection statements, arrays, functions, and methods.
* Cybersecurity I
* 3D Printing & Modeling \*Apex (full year 1 credit) - In this course, students learn to build, texture, arrange, and render 3D models in preparation for 3D printing. They learn to use Blender®, a powerful open source professional 3D design software used in a wide variety of fields including design, animation, visual effects, and engineering. In doing so, students learn the most important concepts of digital 3D creation, including XYZ navigation, the importance of low poly designs, combining and modifying simple shapes to create complex designs, and more.
* 3D Game Design \*Apex (full year 1 credit) - In this course, students learn the basics of 3D video game design, including models, textures, volumes, lighting, and more. Students will create their own amazing 3D world from start to finish.
* 3D Animation \*Apex (full year 1 credit) - The course teaches students how to create their own 3D animated movies and also teaches the basics of animation. Using Blender®, professional open source 3D animation software, students follow the same standard techniques and workflows as animators at leading animation studios. By the end of the course, students will have completed the 3D animation they created from scratch.

CAREER & TECHNICAL EDUCATION (CTE)

* Investigating Careers (full year 1 credit) - Investigating Careers gives students an overview of many career options and the education, training, and skills required for each. Career Paths include:
* Agriculture and Natural Resources
* Architecture and Construction
* Arts and Communication
* Business and Administration
* Education and Training
* Finance and Insurance
* Government and Public Administration
* Health Science
* Hospitality, Tourism, and Recreation
* Human Service
* Information Technology
* Law and Public Safety
* Manufacturing
* Retail and Wholesale Sales and Service
* Scientific Research, Engineering, and Mathematics
* Transportation, Distribution, and Logistics
* College and Career Readiness (full year 1 credit) - course provides students with basic knowledge and skills they need as they prepare for further training in a career or go on to college. Course topics include:
* Preparing Your Path for Success
* Discovering Career Choice Influences
* Understanding Yourself
* Looking Into the Future
* Planning Your Internal Career Design
* Setting Goals
* Understanding Finances
* Going from Here to Your Career
* Applying and Interviewing for a Job
* Principles of Agriculture (full year 1 credit) - course provides a broad overview of the largest industry in the United States, the field of agriculture. From the clothing we wear and the food we eat to the vehicles we drive and the devices we use to communicate, agriculture is involved in some way in providing us with the necessities and conveniences of modern life. In the Principles of Agriculture course, students begin by discussing what agriculture is and the careers that exist in this all-encompassing field. They begin the main body of the course by exploring animal science, including the production of beef, horses, swine, sheep/goats, and poultry, including their nutrition, digestion, and reproduction. Students investigate the industry of plant production, including the parts of plants and their life cycles and processes, and their propagation. They study environmental effects on plants and the relationship between plants and soil. They discuss crop production and specifically examine corn and soybeans. They learn about the FFA organization, its history, structure, traditions, and programs, as well as traits of leadership, parliamentary procedure, and public speaking. Finally, students take a thorough tour through a wood and metal shop, learning what tools are found there, how they work, and what they are for. They explore basic shop safety and the steps of shop projects, and they delve into arc welding, MIG welding, and the oxy-acetylene process.
* Agriculture I (full year 1 credit) - The largest industry in the United States, the field of agriculture is broad and all-encompassing. From food and clothing to cell phones and trucks, all are either agricultural in nature or derived and related to agriculture in some way. In the our Agriculture I course, students begin with an introduction to this comprehensive industry, including an overview of its six sectors. Through the main body of the course, students enjoy an in-depth exploration of animal science, one of these six sectors. They learn what is involved in working with cows, horses, swine, sheep/goats, and poultry -- livestock and animals reared for produce. Students are also introduced to the FFA organization, and the opportunities and advantages it provides for those who choose a career in agriculture. Finally, students take a thorough tour through a wood and metal shop, learning what tools are found there, how they work, and what they are for.
* Agriculture II (full year 1 credit) - In the our Agriculture II course, students begin with an introduction to plant systems, one of the six career sectors of agriculture. They learn about plant types, parts, classification, reproduction, and processes, as well as the effect of the environment on plants. They delve into a study of soil, crop production, trees, pests, and weeds. They explore aspects of the FFA program and how to succeed at getting a job. They also study record keeping and welding.
* Principles of Business, Marketing, and Finance (full year 1 credit) - provides a basic business, marketing, and finance background for students looking for a career in business or for students desiring further preparation before entering college in a business and finance related major. Course topics include:
* Economics
* Management
* Operations
* Finances
* Future Planning
* Insurance
* Accounting
* Communication
* Human Resources
* Personal Growth
* Taxes and Illicit Activities
* Business Management (full year 1 credit) - course that is appropriate for both students on a business career path as well as students seeking to attend college in a business related field. Course topics include:
* Management and Leadership
* Planning and Change
* Economics and Ownership
* Regulation and Communication
* Business Metrics
* Capitalization
* Supply Chain Management
* Human Resources
* Managing the Manager
* Information Management I (full year 1 credit) - provides students with an introduction to how businesses use technology to manage immense amounts of data and develops general study skills for continuing education. Through historical context, extensive examples, and practice, students learn about the importance of making informed decisions based on data mining and analysis and the inquiry skills necessary to avoid pitfalls. This course develops communication skills while providing a firm foundation for students looking to excel in technology and management related advanced postsecondary degrees. Students will gain an understanding of using the Internet to promote a business and the responsibility that goes along with worldwide communications.
* Information Management II (full year 1 credit) - builds on previous instruction to give students management and study skills and for postsecondary education and beyond. Students will learn the basics of workplace communication, become familiar with financial statements, learn to structure business documents, and gain an understanding of how businesses function. Students will learn about economics, business legalities, and be given training on skills such as oral presentation and timed writing. From writing a resume to managing employees, this course will enable students to strengthen their business skills and prepare them to gain further knowledge through the study of business related college majors and careers.
* Mastering Microsoft Excel (full year 1 credit) - focuses of providing students with a solid foundation on the many features and applications of the Microsoft Excel spreadsheet program. Excel, being a vastly versatile and widely used tool in the modern workforce, is a skill integral to success for students planning for any business-related career. This course explores topics from basics of creating workbooks to advanced functions using macros, as well as how to work with other Microsoft Office programs.
* Electrical Technology I (full year 1 credit) - gives students who are interested in a career path in an electrical-related field - including general construction - a foundation of knowledge and practice necessary for a successful career.
* Electrical Technology II (full year 1 credit) - builds on the foundation of Electrical Technology I to give students additional knowledge and skills they will need for a career in an electrical-related field and prepares them for the Electrical Technology certification exam.
* HVAC Technology I (full year 1 credit) - Heating-Ventilation-Air Conditioning-and Refrigeration course, filmed in 3-D, provides students with a basic foundation of knowledge and skill required for a career in the HVAC-R field. It is the first in a two-part course of study preparing students for HVAC–R certification.
* HVAC Technology II (full year 1 credit) - Heating-Ventilation-Air Conditioning-and Refrigeration course builds on the knowledge and skills taught in HVAC Technology I to provide students the preparation they need for their career and for the HVAC-R certification exam.
* Plumbing Technology I (full year 1 credit) - provides students with a basic foundation of knowledge and skill required for a career in the plumbing technology field. It is also useful for students desiring a career in general construction. It is the first in a two-part course of study preparing students for Plumbing Technology certification.
* Plumbing Technology II (full year 1 credit) - builds on the principles and skills of Plumbing Technology I to provide students with the additional knowledge and preparation they need both practically for their career as well as for the HVAC-R certification exam.
* Introduction to Accounting (full year 1 credit) - covering the process of recording, analyzing, classifying, summarizing, and communicating accounting information. Students will have the opportunity to learn how to interpret and formulate financial information for use in management decision making. Mr. Rogers helps students to investigate the impact of industry standards as well as economic, financial, legal, and ethical factors.
* Instructional Standards in Education and Training (full year 1 credit) - provides students with background knowledge of child and adolescent development as well as principles of effective teaching and training practices. Students learn to plan and direct individualized instruction and group activities, prepare instructional materials, develop materials for educational environments, record keeping, and other responsibilities of teachers, or other educational personnel. Course topics include:
* Foundations of Education
* Career Options in Education
* Effective Teachers
* Communications Skills
* Teaching Style
* Preparing an Effective Learning Environment
* Educational Technology
* Lesson Planning
* Administration
* Extra-Curricular Activities
* Life Outside the Classroom
* Getting Your Teaching Job
* Medical Terminology (full year 1 credit) - provides general study skills and a firm foundation for students preparing for postsecondary education to pursue a career in the medical field. Anatomical instruction is coupled with the investigation of key related terminology not only dealing with “what” but also “why” and “how” allowing students apply the information. Specifically, students explore the structures, functions, and terms related to disease and the bodily systems, including the skeletal, muscular, cardiovascular, lymphatic, respiratory, digestive, nervous, integumentary, endocrine, and reproductive systems. Students learn about specific health care professions and the unique role each plays. Through the study of this material students learn effective deciphering skills enabling them to decode medical terminology they have seen and terminology to which they are yet to be exposed.

ARTS

* Music Appreciation (full year 1 credit) - provides an overview of the development of western music from Pre-Renaissance to Modern times on the European continent and in America. The focus is on select composers and how the influenced musical styles – and on enjoying our rich heritage of music. Course topics include:
* Renaissance Music
* Baroque Music
* Classical Music
* Pre-Romantic Music
* Early Romantic Music
* Mid-Romantic Music
* Late Romantic Music
* Twentieth Century Music
* Collaborative Theatre (full year 1 credit) - course focuses on the network of art forms that all work together to tell a story on the stage. Students will examine the inception of theatre and its history as well as the tools and techniques of theatre artists, both onstage and backstage. They will also explore elements of design, including scenic and costume design. The course will conclude with a look at careers in the professional and academic theatre industry.

SOCIAL STUDIES

* US History A - 1877-1940 (one semester 0,5 credit) - is the first semester of a two-part series that delves into the history of the United States. Beginning with a review of the nation’s beginnings and the impact of the Enlightenment on U.S. ideals, this course studies events of significant historical importance that occurred from the period of reconstruction and industrialization up to World War II.
* US History B - 1940-21st Century (one semester 0,5 credit) - covers the development of the United States from the end of the Civil War through issues facing the country today. U.S. History II is the second in a two-part series that provides high school students with a good foundation in the history of this country.
* US History I - 1760-1877 (one semester 0,5 credit) - covers the development of the United States from the early settlement of the continent through the assassination of Abraham Lincoln and the end of the Civil War. U.S. History I is the first in a two-part series that provides high school students with a good foundation in the history of this country. Course topics include:
* Peopling the Americas — Three Worlds Meet
* The American Colonies Emerge
* Life in the American Colonies
* The War for Independence
* A New Nation
* Launching the New Nation
* Nationalism and Sectionalism
* Reforming American Society
* Expanding West
* The Union in Peril
* The Civil War
* US History II - 1877-21st Century (one semester 0,5 credit) - covers the development of the United States from the end of the Civil War through issues facing the country today. U.S. History II is the second in a two-part series that provides high school students with a good foundation in the history of this country. Course topics include:
* The Death of Lincoln Thru Reconstruction
* The End of the Western Frontier
* A New Industrial Age and the Immigration Boom
* The Progressive Era
* America Turns Imperialistic (Spanish American War)
* The First World War
* The Roaring Life of the 1920s
* The Great Depression and the New Deal
* World War II
* Post-War America and the Start of the Cold War
* Civil Rights
* The New Frontier and the Great Society
* The Vietnam War Years
* An Era of Social Change
* World History I (one semester 0,5 credit) - examines world civilizations from Pre-history through 1200 AD. Course topics include:
* Prehistory to Early Civilizations
* Nile River Civilizations
* Ancient India and China
* Classical Greece
* Ancient Rome
* Civilizations in the Americas
* Chinese and Indian Empires
* The Rise of Islam
* Ancient Africa
* East Asia
* World History II (one semester 0,5 credit) - examines world civilizations from 1200 AD to the present. Course topics include:
* Asian Empires 1200 – 1800
* Renaissance and Reformation 1300 – 1650
* Exploration and Expansion 1400 – 1700
* Enlightenment and Historic Revolutions 1550 – 1800
* European Monarchs 1500 – 1800
* Industrialization and Nationalism 1700 – 1900
* World War I: 1914 – 1918
* Post WWI and Through World War II: 1919 – 1945
* Contemporary Issues: 1945 – Present
* Epic Moments in World History (full year 1 credit) - will take students through the beginnings of civilization, to the present day, looking into just how our global society has evolved into the world we now live in.
* US Government and Civics (one semester 0,5 credit) - course introduces students to the fundamental principles the U.S. Constitution is based upon, and how our government is run today. Throughout this course, students will study the founding of our country, how and why the American Revolution began, and how the law of our land was formed. They will also learn about the rights and duties of American citizens.
* World Geography (full year 1 credit) - investigates the earth in which we live, providing an in-depth look at the physical attributes of its lands and oceans, as well as the how its climate and geographical features have shaped the culture and economy of the people that live in specific regions. Students will explore how people deal with difficult environments and how they use their environment to their advantage. They will investigate geography-related challenges that lie ahead, as well as physical resource management. This course provides high school students with a strong foundation in world geography helping them to better understand the world around them.
* Economics (full year 1 credit) - ​​provides students with an introduction to the foundational principles of the economics of the world. Instruction ranges from markets and demand, GDP, banking, policy, inflation, and unemployment, to trade, currency and competition.
* Psychology (full year 1 credit) - introduces students to the science of psych. Students learn foundational knowledge regarding the scientific method, and human anatomy, and apply this to the study of memory, learning, stress, thought and personality, and states of consciousness. Students also analyze common psychological disorders career paths within Psychology.
* Personal Finance (one semester 0,5 credit) - course is designed to prepare students with the skills and knowledge needed to shape their financial future. The course will provide a tool-kit of knowledge resources that will empower students to make informed financial decisions. The course covers real world topics including income, money management, credit, as well as saving and investing. Students will have the opportunity to explore concepts such as budgeting; checking and saving accounts; and investment options. The course also teaches sound practices in the areas of finance, debt, risk management, taxes, and credit management. Course topics include:
* Fundamental economic principles
* How to find a job, including resume preparation
* Factors that affect income
* Budgeting and spending
* Planning for taxes
* How to prepare a tax return and other tax forms
* Income vs. net worth
* Choosing a bank
* Debit cards and ATMs
* Insurance and risk management
* Credit management
* Interest rates
* Credit card management
* Loans and mortgages
* Credit laws that protect consumers
* Avoiding scams and identity theft
* Saving and investing

SOCIAL EMOTIONAL LEARNING

* Social Emotional Learning - High School (full year 1 credit) - The course helps students explore their potential and the choices they have to make as they grow up. Students examine their ability to choose the person they want to become and learn to use skills such as goal setting to become that person. Students explore the personal aspects of their lives, as well as the relationships and potential they hold, to influence, inspire and guide others. Students continue Social and Emotional Learning (SEL) by exploring ways to make they're lives the best they can be and preparing themselves for a conscious and positive outlook on the future.

HEALTH

* High School Health (full year 1 credit) - course was developed in association with Children's Mercy Hospital and is aligned with the National Health Education Standards. Course topics include:
* Physical Fitness
* How your body works
* Understanding Disease
* Drugs and Medicines
* Adolescence
* First Aid
* Hygiene and Healthcare

ADVANCED PLACEMENT (AP)

Arts

* AP Music Theory (full year 1 credit) - provides students with an in-depth foundation of music theory, including the elements of musical composition. It is an excellent preparation for students desiring a music-related career and for those planning to take the AP Music Theory exam. Course topics include:
* Music theory foundations
* Compound Meters and Minor Tonality
* Intervals, Triads, and Seventh Chords
* Counterpoint – Connecting Melodic and Harmonic Intervals
* Establishing the Two-Voice Composition
* Eighteenth Century Counterpoint
* Harmonization
* Tones and Scales
* Diatonic Sequences
* Preparing for the AP Test
* AP Studio Art - Drawing (full year 1 credit) - provides students with a conceptual and visual foundation of the components of artistic drawing. It is an excellent foundation for students desiring a career in an art-related field, and gives guided preparation on preparing artwork for the AP exam.

Language Arts/Reading

* AP English Language and Composition (full year 1 credit) - is designed for students who have mastered the basic English curriculum and wish to be challenged by higher-level reading and analysis. Students analyze and interpret good writing and apply effective strategies in their own writing while also preparing for the AP Exam.
* AP English Literature and Composition (full year 1 credit) - is designed for students who have mastered the basic English curriculum and wish to be challenged by higher-level reading and analysis. It engages students in becoming skilled readers and writers of prose from a variety of rhetorical contexts. The course also includes AP Exam prep.

Social Studies

* AP European History (full year 1 credit) - students learn about the cultural, economic, political, and social developments that have shaped today’s world by studying European history from 1450 to the present. Students study the great awakening referred to as the Renaissance, as well as the reformations that took place during this critical time in history. They study the religious tensions and wars of this period, as well as revolutions, industrialization, liberalism, conservatism, and nationalism. They also learn about socialism and marxism, the second industrial revolution, and the World Wars. They go on to study Europe in the Twentieth Century, with its technology, its religious and social transformations, its feminism, its "modern" women, and its new political voices and social life.
* AP Psychology (full year 1 credit) - course introduces students to the systematic and scientific study of human behavior and mental processes. Topics discussed include:
* Biological bases of behavior
* Sensation and Perception
* Learning and Cognition
* Motivation
* Developmental Psychology
* Testing and Individual Differences
* Treatment of Abnormal Behavior
* Social Psychology
* AP United States History (full year 1 credit) - ​​In this course students not only learn the history of this great country, but take a thematic approach to the causes and effects of historical happenings in this great country.
* AP World History (full year 1 credit) - This course focuses on world history from 8000 BCE to present. Students investigate the content of world history for significant events, individuals, developments, and processes in six historical periods and develop the same thinking skills and methods employed by historians when they study the past.

Math and Computer Science

* AP Calculus AB (full year 1 credit) - is a two-part advanced placement course providing students with the curriculum required by the College Board for AP Calculus AB and BC. Students completing this course will be able to take the AP Calculus exam, enabling them to earn college credit for taking this course while still in high school. Besides learning how to use the basic tools of Calculus, students completing this course learn on a deeper level what they are really doing and why it works. This provides insight few students experience in more conventional Calculus courses, empowering them with the knowledge required to solve real world problems.
* AP Calculus AB Exam Prep (full year 1 credit) - was designed for students to quickly and efficiently review many concepts typically covered on the AP Calculus AB Exam. After being shown step-by-step how to solve several carefully selected exam-like problems on a particular topic, students are given similar problems to cement their understanding. Two videos are provided for each lesson, giving students a "fast track" option as well as additional, more detailed instruction. The AP Calculus AB Exam Prep course:
* Consists of short, concise lessons
* Presents problems modeled after those given in previous AP Calculus AB Exams
* Provides may different types of problems, some requiring an analytical (algebraic) approach, others requiring numerical analysis or a graphical solution
* Covers both multiple choice and free-response types of problems
* Incorporates both calculator active and non-calculator active types of problems
* Provides helpful strategies to be used when taking the AP Calculus AB Exam
* Includes information on exam grading
* Contains suggestions on how to make final preparations prior to taking the exam
* Gives students extra confidence going into the exam
* AP Calculus BC (full year 1 credit) - is a two-part advanced placement course providing students with the curriculum required by the College Board for AP Calculus AB and BC. Students completing this course will be able to take the AP Calculus exam, enabling them to earn college credit for taking this course while still in high school. Besides learning how to use the basic tools of Calculus, students completing this course learn on a deeper level what they are really doing and why it works. This provides insight few students experience in more conventional Calculus courses, empowering them with the knowledge required to solve real world problems.
* AP Computer Science Principles (full year 1 credit) - course introduces students to the creative aspects of programming, abstractions, algorithms, big data, the Internet, cybersecurity concerns, and computing impacts. Students will learn to create and implement computer programs using current technologies for both self-expression and problem solving. Through hands-on application and examples, students will also explore career options while addressing ethical and relevant issues for today's world.
* AP Computer Science (full year 1 credit) - This course instructs students on core aspects of computer science. Students will learn to create and implement computer programs that solve problems relevant to today's society, as well as deploy programming tools and effectively deal with complex problems through hands-on application and examples.
* AP Statistics (full year 1 credit) - In this course, students learn about the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students should successfully complete Algebra II prior to taking this course.

Sciences

* AP Biology (full year 1 credit) - is an introductory college-level biology course. It is recommended that students complete Honors Biology and Honors Chemistry prior to taking AP Biology. Students cultivate their understanding of biology through inquiry-based investigations by exploring topics in the following areas:
* Evolution Drives the Diversity and Unity of Life
* Water Potential
* Cell Structure
* Cellular Respiration
* Pigments and Photosynthesis
* The Cell Cycle
* Mitosis and Meiosis
* History of Genetics
* Human Genetics
* Chromosomal Alterations
* DNA and Genes
* Viruses and Bacteria
* Classifications
* Animalia
* Ecosystems, Population Growth, and Interaction
* AP Chemistry (full year 1 credit) - course gives students a college-level foundation on which to build more advanced course work in chemistry. Students expand their understanding of chemistry through inquiry-based investigations, as they delve deeper into the following topics:
* atomic structure
* intermolecular forces and bonding
* chemical reactions
* kinetics
* thermodynamics
* equilibrium
* AP Environmental Science (full year 1 credit) - course encourages students to engage with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. Throughout the course and its lab sessions, students will analyze environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. This interdisciplinary course, embraces topics from geology, biology, environmental studies, environmental science, chemistry, and geography. It is recommended for students who have completed Algebra I and two years of high school laboratory science.
* AP Physics 1 (full year 1 credit) - is an algebra-based, introductory college-level physics course. It is recommended that students complete Honors Physics prior to taking this Algebra-based course. Students expand their understanding of Physics through inquiry-based investigations as they explore topics such as:
* Kinematics
* Dynamics
* Circular Motion and Gravitation
* Energy
* Momentum
* Rotational Motion
* Simple Harmonic Motion
* Mechanical Waves
* Electrostatics
* Circuits
* Problem Solving
* AP Physics C: Electricity and Magnetism (one semester 0,5 credit) - the student will explore the invisible fields and forces of electricity and magnetism; will study the electrical circuit and the relationship between magnetic fields and current.
* AP Physics C: Mechanics (one semester 0,5 credit) - The student will explore kinematics, Newton's laws of motion, work, energy and power, particle systems and momentum, circular motion and rotation, and oscillation and gravity, and will learn why the universe works this way.

World Languages

* AP Spanish (full year 1 credit) - course is conducted almost exclusively in Spanish. Students are expected to communicate in Spanish using the three modes of communication (Interpersonal, Interpretive, and Presentational) defined in the Standards for Foreign Language Learning in the 21st Century. These three modes of communication are the foundation of the AP® Spanish Language and Culture course. Students in the AP Spanish Language and Culture course should be able to make connections, draw comparisons, move fluidly between their native language and the target language (Spanish), and use Spanish in simulations of real-life settings. Assignments are meant to prepare students for, and emulate, the actual AP exam that they are likely to take upon successful completion of this class. The themes for this course are: global challenges, contemporary life, personal and public identities, families and communities, beauty and aesthetics, science and technology, and writing in Spanish.
* AP French (full year 1 credit) - is designed to enhance students’ knowledge of the French language through the development of reading, writing, listening, speaking, and expanding cultural knowledge. The course is conducted almost exclusively in French. Students are expected to communicate in French using the three modes of communication (Interpersonal, Interpretive, and Presentational) defined in the Standards for Foreign Language Learning in the 21st Century. These three modes of communication are the foundation of the AP® French Language and Culture course.
* AP German (full year 1 credit) - is designed to enhance students’ knowledge of the German language through the development of reading, writing, listening, speaking, and expanding cultural knowledge. The course is conducted almost exclusively in German. Students are expected to communicate in German using the three modes of communication (Interpersonal, Interpretive, and Presentational) defined in the Standards for Foreign Language Learning in the 21st Century. These three modes of communication are the foundation of the AP® German Language and Culture course.