



Course Catalog

Fall 2010

High School Courses

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Standard Program

Grammar and Composition

Language Arts

Prerequisites (Required): None

This course helps students master communication skills and fundamental principles of grammar and usage. Students' individual writing needs are diagnosed and targeted for improvement. The course presents grammar as a tool for improving communication rather than as a pure focus of study. Along with their writing skills, students also improve oral communication and research skills. Although the course includes some study of literature, it is not the focus.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

English 1: Survey of Literature

Language Arts

Prerequisites (Required): None

Students investigate the connections between literature, culture, and their own life experiences, and learn to clearly express their ideas and opinions. Reading selections include novels, short stories, and poetry representing a broad cross-section of American subcultures and literary traditions. The course also builds fundamental writing and communication skills as it introduces students to the writing process and the basic principles of academic research. The course gives students the tools to read and communicate with deep understanding, clarity, and conviction.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

English 2: World Literature

Language Arts

Prerequisites (Required): None

This course introduces students to major literary traditions from all corners of the globe. Reading selections include novels, short stories, epic poetry, drama, and mythology spanning the millennia of human history. In addition to evaluating the plots and characters of well-known writers, students learn to identify themes, create dialogue, and appeal to emotions. They study various forms of communication including oral, visual, electronic, and textual. As students explore various eras and cultures through literature, they also build proficiency in writing, literary analysis, and critical thinking. Students learn to communicate their own dreams, goals, and aspirations with clarity and conviction.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

English 3: American Literature

Language Arts

Prerequisites (Required): English 2

Is there a better way to learn about literature than going right to the source? The Virtual Times is a newspaper delivered straight from the American past to students' doorstep (or computer screen). Organized around the theme of this virtual paper, the course delivers novels, drama, poetry, short films, and nonfiction that students analyze in terms of theme, literary devices, historical context, and point of view. Students learn to appreciate audience and purpose in what they read and write, as well as draw inferences. They produce a variety of writings, including journals, creative pieces, and analytic, expository, persuasive, and research essays. Students expand their vocabulary, demonstrate advanced research skills, and improve their oral communications skills. As virtual reporters investigating classic works of literature, students gain exposure to American authors and learn to appreciate what literature teaches about the time in which it was written.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

English 4: Interacting with Literature

Language Arts

Prerequisites (Required): English 3

In English 4, students master the literary and reading skills needed for success in college or career. Students select the literature of most interest to them in the genres of novels, short stories, drama, poetry, and nonfiction. They learn to analyze literary works with a critical eye, forming opinions based on evidence and persuasively expressing their own ideas. Students produce a variety of writings, gaining the vocabulary, literary techniques, and research skills to communicate effectively. Students also explore options for the future, and build a project around their chosen path that provides them with a plan to achieve their post-high school goals.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Consumer Math

Mathematics

Prerequisites (Required): None

Understanding how to manage money and make responsible financial decisions are important skills that payoff for a lifetime. In this course, students learn about budgeting, saving, banking, investments, credit, insurance, preparing income tax returns, and paying taxes. The purpose of the course is to give students the knowledge and skills to manage secure financial futures. A thorough understanding of financial concepts, plus practical application through activities and projects, give students applicable, useful life skills.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Pre-Algebra

Mathematics

Prerequisites (Required): None

This course builds upon the essential skills of arithmetic as they apply to algebra. Topics include real numbers and linear equations, linear inequalities, exponents, functions, graphing, and some elements of geometry. Students gain a background in algebra that gives them the skills and confidence to be successful in high school mathematics courses.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Algebra 1A

Mathematics

Prerequisites (Required): None

Students review fundamental mathematics skills learned in middle school, and then get up to speed on the basic concepts of algebra. Students learn about integers, equations, graphs, and data analysis. This course connects algebra to the real world, making it easier to understand and master. The goal is to create a foundation in mathematics that will support students throughout high school. This two-part course is designed for students requiring additional algebra support; together, Algebra 1A and 1B meet students' Algebra 1 requirement.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Algebra 1B

Mathematics

Prerequisites (Required): Algebra 1A

This course continues where Algebra 1A left off, and reinforces that algebra is a great way to solve real problems. Students review basic algebra concepts and are introduced to new algebraic strategies and properties, including data analysis concepts and techniques. Numbers, equations, and graphs come alive on the screen while step-by-step instruction takes the struggle out of learning algebra. Students see how algebra connects with other subjects like geometry, statistics, and biology. Students gain a powerful tool for understanding how the world works, and how to make it work for them. This two-part course is designed for students requiring additional algebra support; together, Algebra 1A and 1B meet students' Algebra 1 requirement.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Algebra 1

Mathematics

Prerequisites (Required): None

Students gain the knowledge needed for success in their high school mathematics courses. The course emphasizes the use of algebra in everyday life—in sports, travel, business, and health—and students practice using algebra to solve real-world problems. The course presents algebra concepts in a user-friendly manner and gives students hands-on practice through animations, graphics, audio components, and interactive graphs. Students see problems solved step by step on their computer screens, while engaging labs make numbers, graphs, and equations come alive. This course gives students the skills, strategies, and confidence to solve all kinds of mathematical problems.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Algebra 2

Mathematics

Students continue to build skills and confidence in algebra. The course includes hands-on activities, applications, group interactions, and cutting-edge technology that keep students engaged. After a review of basic algebra, students learn how to work with polynomials, quadratic equations, exponential and logarithmic relations, probability, and statistics. To learn how algebra is used in the real world, students jump into roles as employees of a fictional corporation, working their way up the corporate ladder with each successful assignment. In Algebra 2, students gain the algebra needed for success in school and career.

Prerequisites (Required): Algebra 1

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Geometry

Mathematics

This course takes students on a mathematical highway illuminated by spatial relationships, reasoning, connections, and problem solving. Students develop geometric skills, learn geometry concepts, and practice constructing formal logical arguments and proofs. Through exploration of real-world examples, students see that geometry is all around them—engineers use it to bank highways and build bridges, artists use it to create perspective in their paintings, and mapmakers help travelers find locations using the points located on a geometric grid. The course provides students with basic tools for understanding and solving problems in the real world.

Prerequisites (Required): Algebra 1

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Pre-Calculus

Mathematics

Students acquire the skills needed to study calculus with confidence. The course is organized around the theme of national parks, and each student takes on the role of a mathematical analyst intent on solving park problems using mathematics concepts. In addition to covering functions and providing a foundation in calculus, the course also includes analytical geometry and trigonometry. As students apply what they learn to answer real-world questions, their knowledge of and skill in calculus increase.

Prerequisites (Required): Algebra 2, Geometry

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Calculus

Mathematics

This course takes a comprehensive look at differential and integral calculus. Students learn about the concepts of limits, derivative and integral computation, linearization, Riemann sums, the Fundamental Theorem of Calculus, and differential equations. Applications include graph analysis, linear motion, average value, area, volume, and growth and decay models.

Prerequisites (Required): Pre-Calculus

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Biology

Science

Students discover the nature of life through a study of matter, energy, chemical processes, genetics, DNA, and cells. They learn the scientific method and examine the traits and classifications of organisms from viruses and bacteria to plants and animals. Hands-on and virtual laboratory investigations enhance students' understanding of living things. The course covers some of the fastest growing areas of research in the biological sciences. By the end of the course, students will have developed a working definition of what constitutes life on Earth.

Prerequisites (Required): None

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Chemistry

Science

Prerequisites (Required): Algebra 1, Biology

Students embark on a virtual tour to see chemistry in action. They visit such places as a petroleum refinery, a water treatment plant, a hospital, and even a scuba dive shop. From the largest nuclear power plant to the tiniest atom, students learn the basic ways that chemistry works and how scientists use it to make our lives better. Stressing the practical application of chemistry and its everyday uses, the course shows students how atoms, molecules, and elements join to make the water we drink, the air we breathe, and the gas that powers our cars. Hands-on laboratory investigations make concepts come alive and give students the chance to think like scientists.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Earth Space Science

Science

Prerequisites (Required): None

Students explore the world and the universe. They journey from the sun and the moon across the oceans and continents down to the rocks and minerals and inside volcanoes and earthquakes. Students discover the history of the Earth, including fossils, the ice age, and glaciers. They learn about the weather and atmosphere and how winds and fronts work. Students explore space and the solar system and learn all about the Earth's water. The course engages students through hands-on activities, in which they gather data from their surrounding and interpret results like real scientists.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Marine Science

Science

Prerequisites (Required): None

Marine Science is a blend of biology and physical science. It incorporates topics such as ecology, chemistry, geology, technology, zoology, meteorology, botany, oceanography, and marine biology. Throughout this course, students explore the classification, anatomy, and physiology of organisms in the marine environment, as well as the ecological function of these organisms as members of complex biological communities. As students delve deeper into marine science, they understand the origin of the oceans, the geological aspects of the marine environment, and the ecology of various sea zones. Students also analyze characteristics of marine ecosystems while understanding and appreciating the relationship between people and the oceans.

Prerequisites (Recommended): Physical Science,
Biology

KVE Credits: 1

Level: HS

Physical Science

Science

Prerequisites (Required): None

Students enter the world of physical science. They journey from deep in the center of an atom to right outside their window, where the laws of physics dictate the behavior of cars and airplanes, light and music, and the planets themselves. This course introduces students to the concepts of matter, energy, electricity, and magnetism and how they apply to everyday life. Laboratory investigations incorporate the use of measurement, problem solving, laboratory apparatus, safety procedures, and experimental procedures and enable students to see concepts come to life before their very eyes.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Physics

Science

Prerequisites (Required): None

In this course, students enter "Physics World," inhabited by great minds like Galileo, Newton, and Einstein. Students witness how physics has progressed over time due to the observation, experimentation, and insights of these scientific geniuses. Students learn the concepts, theories, and laws that govern the interaction of matter, energy, and forces. From tiny atoms to galaxies with millions of stars, students observe the universal laws of physics and learn to apply such laws. Using laboratory activities, videos, software, and websites, students follow in the footsteps of some of the world's greatest thinkers.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Environmental Science

Science

Prerequisites (Required): None

In this course, students learn about the environment and environmental issues. By studying the ecological interactions between living things and the environment, students learn how pollution, the carbon cycle, and the food chain alter the Earth's processes. In addition, the systematic study of global realms such as the atmosphere, hydrosphere, lithosphere, and biosphere provides an understanding of natural processes. Students also learn about the various interest groups that influence government and policy and understand why environmental issues are so hotly debated today. Finally, students look to the future of energy resources, exploring farming, biofuels, and alternative energy sources.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

American History

Social Studies

Prerequisites (Required): None

Students investigate the history of the United States from the era of slavery to the present. The course takes students through a series of court cases that illuminate critical turning points and issues in American history. Students conduct research focused on the historical era in which the case occurred, and use primary and secondary sources to build persuasive arguments. As students consider questions about slavery, rights, regulation of business, religious freedom, and maintaining a stable world order, they begin to appreciate the complexity of the American story. The course also challenges students to apply their knowledge and perspective of history to interpret the events of today.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

World History

Social Studies

Prerequisites (Required): None

World History introduces students to the concept of a global community. Whether exploring ancient Egypt, medieval Europe, or post-war Japan, students learn the impact that ancient and modern civilizations have upon their own lives and current events. In the course, students act as curators of the "Windows of the World Museum." They design exhibits that highlight the development of different cultures in the areas of art, commerce, politics, geography, religion, and science. By exploring what various artifacts, data, and sources reveal about human activity, students make connections between the past, present, and future. Students also develop their research skills, and learn to effectively communicate their ideas in writing.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

American Government

Social Studies

Prerequisites (Required): None

From Washington and Jefferson to Obama and Bush, students explore the fascinating story of government in the United States. This in-depth study of the American political and legal systems begins with an examination of the U.S. Constitution and the intentions of the Founding Fathers. Students analyze the pivotal roles of legislative bodies, executive officials, and the courts in governmental decision-making. Students also explore the influence of political parties, public opinion, interest groups, and foreign governments upon American governmental processes.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Economics

Social Studies

Prerequisites (Required): None

In Economics, students learn how what people want and what they need influence the development of societies. They explore the limits that time, money, energy, and resources place upon satisfying the diverse needs and wants of a society. Students discover how economic systems manage these limitations by developing systems of exchange and balancing the use of scarce resources. Students also examine the local and global consequences of economic decisions, the role of technology in economics, and the function of government in shaping economic policy.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Geography

Social Studies

Prerequisites (Required): None

This course explores a broad range of geographical perspectives covering all of the major regions of the world. Students learn where each region is located along with its physical characteristics, location, climate, and geographical features. The course looks at each region from cultural, economic, and political perspectives, examining the human impact on each region as well as how human activities affect the environment.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Spanish 1

Foreign Language

Prerequisites (Required): None

Students embark on a whirlwind virtual tour of Spain, Cuba, Colombia, and Argentina. As they explore the unique characteristics and culture of each place, students learn to communicate in practical and useful ways. They learn basic vocabulary and grammar, and are able to introduce themselves and talk about their homes, families, schools, and communities. They also learn to converse about shopping, weather, sports, entertainment, and hobbies. New words and phrases are introduced with text, pictures, and audio clips that demonstrate proper pronunciation. Interactive games and activities provide students with engaging opportunities to practice the language. In Spanish 1, students acquire the skills to read, write, understand, and speak Spanish with a basic foundation in grammar.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Spanish 2

Foreign Language

Prerequisites (Required): Spanish 1

The adventure continues in Spanish 2, as students travel through Central America and the Caribbean, spending time in museums, traffic jams, and even in the hospital. They also encounter Spanish-speaking people from different parts of the United States. Throughout the course, students expand their vocabulary and knowledge of grammar, improving their ability to speak, write, listen, and read in Spanish. They also learn several new verb tenses, including the preterite, imperfect, future, present progressive, and past progressive. By experiencing the beauty and expressiveness of the Spanish language, students improve their skills in a language shared by many different people and cultures throughout the world.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Spanish 3

Foreign Language

Prerequisites (Required): Spanish 2

In Spanish 3, students meet four Spanish-speaking teens and accompany them on a virtual journey to several countries. Students improve their Spanish and learn about different cultures along the way. They practice speaking, listening, reading, and writing in Spanish as they expand their vocabulary, master new verb tenses, and learn to use idiomatic expressions. Through a virtual immersion in Spanish culture, students increase their knowledge of Spanish-speaking parts of the world and improve their ability to communicate fluidly in a language spoken by millions of people around the globe.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Spanish 4

Foreign Language

Prerequisites (Required): Spanish 3

In Spanish 4, students sharpen their listening, speaking, reading, and writing ability through a variety of stimulating activities. Building on earlier coursework, Spanish 4 students continue to develop new vocabulary as they apply previously learned grammatical constructions to new situations and scenarios. Grammar practice is innovative and interesting and accommodates individual student learning preferences. The course also focuses on the Spanish-speaking world and its many cultures, peoples, geographical locations, and histories.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

French 1

Foreign Language

Prerequisites (Required): None

This course immerses students in the French language through a mixture of reading, writing, listening, and speaking activities. Course strategies include interactive practice and games, discussions, oral and written assignments, and multimedia presentations. Students are acquainted with French-speaking cultures around the world on a virtual tour of France, Canada, Switzerland, and the Ivory Coast. Topics include greetings and introductions, numbers and the alphabet, dates and calendars, weather and time, and colors. This course meets the standards of the American Council on the Teaching of Foreign Languages (ACTFL).

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

French 2

Foreign Language

Prerequisites (Required): French 1

Students learn to communicate in French by speaking, writing, reading, and listening. This engaging and interactive course includes practice activities and games, discussions, oral and written assignments, and multimedia presentations. The course also provides a thorough grounding in French culture as students learn about various regions of France. Topics include telling time, animals, entertainment, body parts, sports, shopping, and clothing. Students learn to describe themselves and each other as they practice conversing about their daily routines. Their ability to communicate improves as students expand their knowledge of grammar. This course meets the standards of the American Council on the Teaching of Foreign Languages (ACTFL).

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

French 3

Foreign Language

Prerequisites (Required): French 2

Students improve their listening, speaking, reading, and writing skills through activities based on proven methods of foreign language instruction. They learn to express themselves using new vocabulary, verb tenses, and increasingly complex grammatical constructions. Topics include feelings, transportation, work, countries, future, health, home, measurements, professions, and personal history. Students practice grammar in innovative and interesting ways that appeal to a variety of learning styles. Students also learn about the French-speaking world and its cultures, peoples, and geographical locations. The course is aligned to national foreign language standards.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

French 4

Foreign Language

Prerequisites (Required): French 3

Students refine their French language skills through a combination of listening, speaking, reading, and writing activities. Students express themselves using an ever-expanding vocabulary and an improved grasp of increasingly complex grammatical structures. Topics include people, activities, celebrations, and the arts, and students learn how to communicate about the past, possibilities, and desires. The course presents grammar in innovative and interesting ways with a variety of learning styles in mind. Students learn about the French-speaking world and its cultures, peoples, geographical locations, and histories. French 4 is aligned to national foreign language standards.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Thinking and Learning Strategies

General Studies

Prerequisites (Required): None

Every student needs a toolbox full of success strategies. This course helps students develop the critical thinking, problem-solving, and test-taking skills essential for success in school, on standardized tests, and in other academic and vocational endeavors. The course also covers Bloom's Taxonomy; students learn to recognize tasks associated with the higher levels of the taxonomy, and understand how to attack those tasks.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Please discuss teaching options with your KVE representative.

Journalism

Language Arts

Prerequisites (Required): None

Extra, extra, read all about it! In this course, students learn the guidelines of good journalism. They gain the skills necessary to brainstorm, research, report, and publish news, features, and sports stories, as well as reviews and opinion/op-eds. Students study the evolution of American journalism from yellow journalism to today's multimedia journalism and its effect on war, politics, and American lifestyles. The course provides opportunities and directions for editors to publish an online newspaper.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Please discuss teaching options with your KVE representative.

Psychology

Social Studies

Prerequisites (Required): None

Students learn about the relationship between feelings, thoughts, and actions. They explore why they learn the way they do, how they forget, and what makes them remember. The course examines mental disorders and the traditional and non-traditional therapies used to treat them. Students learn more about themselves, including how to break habits and cope with stress. The purpose of this course is to introduce students to the psychological facts, principles, and phenomena associated with each of the subfields of psychology. This engaging course includes experimentation, role-playing, and dream interpretations.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Please discuss teaching options with your KVE representative.

Art History

Fine Arts

Prerequisites (Required): None

Students explore the role of art in the history of humankind and the development of culture. This course covers the elements, principles, disciplines, media, and processes of visual art. Students study everything from pottery and paintings to sculpture and architecture. As art critics, students take into account the viewpoints of historians while expressing their own opinions. The course includes pre-historic art, art of ancient Egypt and Greece, and Classical and Hellenistic styles. Students learn how the sensory qualities of art and its subject matter work together to give artwork its own unique expression. Finally, students consider the issue of society's ownership of art.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Computer Literacy 1

Tech & Careers

Prerequisites (Required): None

Students learn basic technology skills needed for success in school and career. Through hands-on projects, students gain experience in areas ranging from key-boarding to Internet research techniques, document creation, and digital citizenship. They improve their software skills with Microsoft Office tools like Word, Excel, and PowerPoint, and learn about email, the Internet, and effective digital communication. In the course, students join a virtual music band, through which they practice their computer skills by creating flyers and promotional materials, managing concerts and events, and fundraising. The course provides a foundation in the skills and concepts that define computer literacy in the 21st century.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Health

Health & PE

Prerequisites (Required): None

This course empowers students to make good, educated life decisions. The course covers issues that are critical in the lives of high school students. Topics include health and nutrition, mental health and stress, relationships and conflict resolution, and alcohol and drug use. Students learn skills to make personal decisions that support their health and wellbeing.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Personal Fitness

Health & PE

Prerequisites (Required): None

With a rise in both teenage obesity and eating disorders, an awareness of and responsibility for personal health and fitness is more important than ever. In this course, students study all elements of physical fitness, as well as a variety of health-related topics including nutrition, dieting, exercise, and the human body. Students learn good eating and exercise habits, and understand how to assess their own fitness levels.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Physical Education 1

Health & PE

Prerequisites (Required): None

Students learn a variety of physical skills, performing activities and completing written evaluations to demonstrate what they learn. The course covers aerobic and anaerobic fitness, as well as individual and team sports and other exercise routines that will help students maintain fitness throughout life. Topics include flexibility and strength training, yoga and racquet sports, and sports such as soccer and volleyball.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Physical Education 2

Health & PE

Prerequisites (Required): None

In this course, students acquire physical skills and strategies for fitness. Students perform activities and complete written evaluations to demonstrate what they learn. The course covers aerobic and anaerobic fitness, as well as individual and team sports and other exercise routines that will help students maintain fitness throughout life. Topics include cardio and weight training, Pilates and dance, and sports such as swimming, basketball, baseball, and even ultimate Frisbee.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Adaptive Physical Education

Health & PE

Prerequisites (Required): None

This course meets the needs of students with Individual Educational Plans or 504 Plans. Students set personal goals and achieve fitness objectives, while learning about proper weight, good diet, and stress management. They embark on a fitness journey through the virtual town of Wellville, developing a personal workout log to record cardiovascular, flexibility, strength, and endurance activities. As they develop healthy habits, students feel their energy levels and confidence increase. High teacher support helps students discover just how far they can go.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Web Design: KompoZer

Tech & Careers

Prerequisites (Required): None

This course provides a comprehensive introduction to the essentials of Web design, from creating page layouts to coding with CSS and JavaScript to building a complete website. Through real-world design scenarios and hands-on projects, students create compelling, functioning websites using KompoZer, one of the Web's most user-friendly open-source (free) editing tools.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Digital Photography and Graphics

Tech & Careers

Prerequisites (Required): None

In this course, students master the fundamentals of GIMP, the world's most popular open source (free) software for editing digital photos and creating digital art. Using GIMP, students create stunning composite photos, captivating images, and even convincing photo hoaxes with brush and filter effects. This course is the perfect introduction to digital media tools; students can ask questions, get feedback, and share work with classmates. By the end of the course, students will have a collection of projects for their digital portfolios.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Digital Video Production

Tech & Careers

Prerequisites (Required): None

This course is an excellent introduction to the exciting field of digital video production. It touches on all phases of video production, from storyboarding scenes to creating shot lists to editing a finished, professional product. Throughout the course, students complete hands-on projects to master the essentials of recording, capturing, and editing video. By the end of the course, students will have two completed films for their portfolios.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Digital Arts 1

Tech & Careers

Prerequisites (Required): None

In Digital Arts 1, students learn the elements and principles of design, as well as foundational concepts of visual communication. Students get hands-on experience in image editing, animation, and digital drawing in a variety of media and art forms. Students combine artistic elements to create finished pieces that effectively communicate their ideas. They learn how to respond to the artwork of others and how to communicate their feedback and ideas. Students also explore career opportunities in the design, production, display, and presentation of digital artwork.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Audio Engineering

Tech & Careers

Prerequisites (Required): None

In this introductory course, students learn about the physics of sound and the history of recording technologies. They study the four stages of professional music projects: recording, editing, mixing, and mastering. Using Audacity, an open source recording and mixing program, students practice the techniques used by sound engineers to produce multi-track recordings. Through a series of engaging hands-on projects, students master the fundamental concepts of audio engineering.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

3D Art 1: Modeling

Tech & Careers

Prerequisites (Required): None

Students create their very own animated 3D characters in this hands-on course. They learn all about the mechanics of 3D modeling: primitives, textures, lighting, bones, and animation. The software of choice is Blender, the powerful, open source (free) modeling tool. Students pick up the tips, tricks, and shortcuts that speed development time. They learn essential geometry concepts, and then put them into practice by creating realistic models to import into 3D projects.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

3D Art 2: Animation

Tech & Careers

In 3D Art 2, students take their 3D modeling skills to the next level. They learn more about the basics of 3D animation, including rigging, bones, and movement. The course shows students traditional animation techniques that they can apply to their 3D models. They also learn basic motion capture techniques. Students continue to work with Blender, the free online animation software.

Prerequisites (Required): 3D Art 1: Modeling

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Computer Aided Design (CAD)

Tech & Careers

Students learn the basics of computer-aided design (CAD) in this hands-on, introductory-level course. They master the essentials of CAD software, creating points, lines, geometric forms, isometric drawings, and 3D models. Students learn how to translate initial concepts into functional designs and 3D walkthroughs. They create multiple views of architectural and machine parts models, as well as a bill of materials. Students also explore career options and learn how designers and manufacturers use CAD in various commercial industries.

Prerequisites (Required): None

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Green Design and Technology

Tech & Careers

This course examines the impact of human activities on sustainability and explores the basic principles and technologies that support sustainable design. Students learn about the potential for emerging energy technologies like water, wind, and solar power. They discover how today's businesses are adapting to the increased demand for sustainable products and services. By the end of this course, students will have a comprehensive understanding of this fast-growing field.

Prerequisites (Required): None

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Introduction to Entrepreneurship 1

Tech & Careers

In this course, budding entrepreneurs learn what it takes to start a successful business. Whether they want to launch their own moneymaking enterprise or create a non-profit to help others, this course shows students the basics of planning and managing their own company. Students learn how to come up with new business ideas, attract investors, market their business, and manage expenses. Real-life stories of teen entrepreneurs inspire students to plan and execute their own successful businesses.

Prerequisites (Required): None

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Introduction to Entrepreneurship 2

Tech & Careers

Students build on the business concepts covered in the first part of this two-course series. They learn about sales methods, financing and credit, accounting, pricing, and government regulations. Students refine their technology skills and build communication skills such as speaking, writing, networking, negotiating, and listening. They enhance their employability by preparing job-related documents, developing interviewing skills, and learning about hiring, firing, and managing employees. Students create a complete business plan and a presentation to potential investors. By the end of this course, students will have mastered the basics of entrepreneurship and have a plan for starting their own business.

Prerequisites (Required): None

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Introduction to Marketing 1

Tech & Careers

In this course, students discover what it takes to market a product or service in today's fast-paced business environment. Through real-world business examples, students learn the fundamentals of marketing as they study buyer behavior, marketing research principles, demand analysis, distribution, financing, pricing, and product management. Students work toward developing their own comprehensive marketing plan for a new business.

Prerequisites (Required): None

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Personal Finance

Mathematics

By teaching students about personal economics and finance, this course helps prepare them for life after high school. Students learn the basics of financial planning, money management, banking, credit, saving, and investing. The course also covers fundamental business finance—students explore what it takes to own and manage a business and learn how to create business plans and financial plans.

Prerequisites (Required): None

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Career Planning

Tech & Careers

Through an engaging, interactive process, students explore career and life options that fit their individual interests, needs, and skills. Students examine their own aptitudes, achievements, and personality styles. They explore potential career matches, reviewing job market information, conducting informational interviews, and plotting training and educational paths. Students learn to create a résumé, write a cover letter, and ace a job interview.

Prerequisites (Required): None

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Music Appreciation

Fine Arts

Rap, classical, hard rock, or pop—whatever their musical taste, students learn the history behind all types of music and see how music is influenced by time and place. From medieval music to popular music of today, students learn about the elements, instrumentation, and major historical periods of music. Students listen to and evaluate several types of music, and complete projects and presentations to display their knowledge and understanding of what they have learned.

Prerequisites (Required): None

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

ACT Online

Test Prep

This course provides Web-based, adaptive instruction based on individual learning that helps students successfully prepare for the ACT. Data-driven, dynamic lesson plans personalize the curriculum according to students' specific needs. Cutting-edge instruction includes multimedia activities and videos featuring expert instructors introducing new skills and strategies. Students benefit from two full-length practice tests and hundreds of practice questions. They complete assignments in each of the exam areas (Mathematics, Reading, Science, and Writing) and acquire problem-solving and test-taking strategies. Custom reports tell students how they are doing and analyze their strengths and weaknesses. The combination of direct video instruction, guided and independent practice, individualized feedback, and online support materials gives students the knowledge and confidence they need for success on the ACT.

Prerequisites (Required): None

Prerequisites (Recommended): None

KVE Credits: Per state regulations

Level: HS

Please discuss teaching options with your KVE representative.

SAT Online

Test Prep

Prerequisites (Required): None

This course provides Web-based, adaptive instruction based on individual learning that helps students successfully prepare for the SAT. Data-driven, dynamic lesson plans personalize the curriculum according to students' specific needs. Cutting-edge instruction includes multimedia activities and videos featuring expert instructors introducing new skills and strategies. Students benefit from two full-length practice tests and hundreds of practice questions. They complete assignments in each of the exam areas (Mathematics, Reading, Science, and Writing) and acquire problem-solving and test-taking strategies. Custom reports tell students how they are doing and analyze their strengths and weaknesses. The combination of direct video instruction, guided and independent practice, individualized feedback, and online support materials gives students the knowledge and confidence they need for success on the SAT.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Please discuss teaching options with your KVE representative.

ESL Reading Smart

ESL

Prerequisites (Required): None

This course supports students' English Language Development. Students engage in accessible and motivating course activities, reading high-interest, multi-genre, culturally relevant materials. Activities support the four modalities of language learning and encourage higher-level thinking through application, synthesis, and evaluation. The course includes vocabulary development, reading comprehension, grammar activities, and writing opportunities. Students benefit from an innovative, standards-based English language-learning program founded on a unique instructional design.

Prerequisites (Recommended): None

KVE Credits: Per state regulations

Level: HS

Please discuss teaching options with your KVE representative.

Smart Track Reading

Language Arts

Prerequisites (Required): None

This intensive reading remediation program offers adaptive instruction based on initial and ongoing assessment. Smart Track Reading teaches skills including basic decoding, vocabulary and word analysis, reading strategies, and comprehension using a variety of fiction and nonfiction texts. Students focus on reading for meaning as they expand their vocabulary, read across content areas, and build critical-thinking skills. The course engages students through high-interest reading passages, interactive features, and game-like activities.

Prerequisites (Recommended): None

KVE Credits: Per state regulations

Level: HS

Please discuss teaching options with your KVE representative.

Mathematics Readiness

Mathematics

Prerequisites (Required): None

This intensive math remediation program is for students who have struggled in previous math courses or have demonstrated a lack of proficiency in foundational mathematics concepts. The program supports the development of a carefully selected subset of fundamental concepts necessary for success in high school mathematics courses, including algebra. All instruction is delivered in a live, synchronous format. Students participate regularly in live teacher-led online sessions, working alongside their peers to master the concepts, procedures, and language that are the foundation for all mathematics. Each lesson is presented on an interactive whiteboard with clear and accessible text, supporting graphics, modeled example problems, and many opportunities to apply new concepts and practice new skills.

Prerequisites (Recommended): None

KVE Credits: Per state regulations

Level: HS

Please discuss teaching options with your KVE representative.

Foundations Program

English 1: Survey of Literature

Language Arts

Prerequisites (Required): None

Students investigate the connections between literature, culture, and their own life experiences, and learn to clearly express their ideas and opinions. Reading selections include novels, short stories, and poetry representing a broad cross-section of American subcultures and literary traditions. The course also builds fundamental writing and communication skills as it introduces students to the writing process and the basic principles of academic research. The course gives students the tools to read and communicate with deep understanding, clarity, and conviction.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

English 2: World Literature

Language Arts

Prerequisites (Required): None

This course introduces students to major literary traditions from all corners of the globe. Reading selections include novels, short stories, epic poetry, drama, and mythology spanning the millennia of human history. In addition to evaluating the plots and characters of well-known writers, students learn to identify themes, create dialogue, and appeal to emotions. They study various forms of communication including oral, visual, electronic, and textual. As students explore various eras and cultures through literature, they also build proficiency in writing, literary analysis, and critical thinking. Students learn to communicate their own dreams, goals, and aspirations with clarity and conviction.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

English 3: American Literature

Language Arts

Prerequisites (Required): English 2

Is there a better way to learn about literature than going right to the source? The Virtual Times is a newspaper delivered straight from the American past to students' doorstep (or computer screen). Organized around the theme of this virtual paper, the course delivers novels, drama, poetry, short films, and nonfiction that students analyze in terms of theme, literary devices, historical context, and point of view. Students learn to appreciate audience and purpose in what they read and write, as well as draw inferences. They produce a variety of writings, including journals, creative pieces, and analytic, expository, persuasive, and research essays. Students expand their vocabulary, demonstrate advanced research skills, and improve their oral communications skills. As virtual reporters investigating classic works of literature, students gain exposure to American authors and learn to appreciate what literature teaches about the time in which it was written.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

English 4: Interacting with Literature

Language Arts

Prerequisites (Required): English 3

In English 4, students master the literary and reading skills needed for success in college or career. Students select the literature of most interest to them in the genres of novels, short stories, drama, poetry, and nonfiction. They learn to analyze literary works with a critical eye, forming opinions based on evidence and persuasively expressing their own ideas. Students produce a variety of writings, gaining the vocabulary, literary techniques, and research skills to communicate effectively. Students also explore options for the future, and build a project around their chosen path that provides them with a plan to achieve their post-high school goals.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Pre-Algebra

Mathematics

Prerequisites (Required): None

This course builds upon the essential skills of arithmetic as they apply to algebra. Topics include real numbers and linear equations, linear inequalities, exponents, functions, graphing, and some elements of geometry. Students gain a background in algebra that gives them the skills and confidence to be successful in high school mathematics courses.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Algebra 1

Mathematics

Prerequisites (Required): None

Students gain the knowledge needed for success in their high school mathematics courses. The course emphasizes the use of algebra in everyday life—in sports, travel, business, and health—and students practice using algebra to solve real-world problems. The course presents algebra concepts in a user-friendly manner and gives students hands-on practice through animations, graphics, audio components, and interactive graphs. Students see problems solved step by step on their computer screens, while engaging labs make numbers, graphs, and equations come alive. This course gives students the skills, strategies, and confidence to solve all kinds of mathematical problems.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Algebra 2

Mathematics

Prerequisites (Required): Algebra 1

Students continue to build skills and confidence in algebra. The course includes hands-on activities, applications, group interactions, and cutting-edge technology that keep students engaged. After a review of basic algebra, students learn how to work with polynomials, quadratic equations, exponential and logarithmic relations, probability, and statistics. To learn how algebra is used in the real world, students jump into roles as employees of a fictional corporation, working their way up the corporate ladder with each successful assignment. In Algebra 2, students gain the algebra needed for success in school and career.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Geometry

Mathematics

Prerequisites (Required): Algebra 1

This course takes students on a mathematical highway illuminated by spatial relationships, reasoning, connections, and problem solving. Students develop geometric skills, learn geometry concepts, and practice constructing formal logical arguments and proofs. Through exploration of real-world examples, students see that geometry is all around them—engineers use it to bank highways and build bridges, artists use it to create perspective in their paintings, and mapmakers help travelers find locations using the points located on a geometric grid. The course provides students with basic tools for understanding and solving problems in the real world.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Biology

Science

Prerequisites (Required): None

Students discover the nature of life through a study of matter, energy, chemical processes, genetics, DNA, and cells. They learn the scientific method and examine the traits and classifications of organisms from viruses and bacteria to plants and animals. Hands-on and virtual laboratory investigations enhance students' understanding of living things. The course covers some of the fastest growing areas of research in the biological sciences. By the end of the course, students will have developed a working definition of what constitutes life on Earth.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Chemistry

Science

Prerequisites (Required): Algebra 1, Biology

Students embark on a virtual tour to see chemistry in action. They visit such places as a petroleum refinery, a water treatment plant, a hospital, and even a scuba dive shop. From the largest nuclear power plant to the tiniest atom, students learn the basic ways that chemistry works and how scientists use it to make our lives better. Stressing the practical application of chemistry and its everyday uses, the course shows students how atoms, molecules, and elements join to make the water we drink, the air we breathe, and the gas that powers our cars. Hands-on laboratory investigations make concepts come alive and give students the chance to think like scientists.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Earth Space Science

Science

Prerequisites (Required): None

Students explore the world and the universe. They journey from the sun and the moon across the oceans and continents down to the rocks and minerals and inside volcanoes and earthquakes. Students discover the history of the Earth, including fossils, the ice age, and glaciers. They learn about the weather and atmosphere and how winds and fronts work. Students explore space and the solar system and learn all about the Earth's water. The course engages students through hands-on activities, in which they gather data from their surrounding and interpret results like real scientists.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

American History

Social Studies

Prerequisites (Required): None

Students investigate the history of the United States from the era of slavery to the present. The course takes students through a series of court cases that illuminate critical turning points and issues in American history. Students conduct research focused on the historical era in which the case occurred, and use primary and secondary sources to build persuasive arguments. As students consider questions about slavery, rights, regulation of business, religious freedom, and maintaining a stable world order, they begin to appreciate the complexity of the American story. The course also challenges students to apply their knowledge and perspective of history to interpret the events of today.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

World History

Social Studies

Prerequisites (Required): None

World History introduces students to the concept of a global community. Whether exploring ancient Egypt, medieval Europe, or post-war Japan, students learn the impact that ancient and modern civilizations have upon their own lives and current events. In the course, students act as curators of the "Windows of the World Museum." They design exhibits that highlight the development of different cultures in the areas of art, commerce, politics, geography, religion, and science. By exploring what various artifacts, data, and sources reveal about human activity, students make connections between the past, present, and future. Students also develop their research skills, and learn to effectively communicate their ideas in writing.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

American Government

Social Studies

Prerequisites (Required): None

From Washington and Jefferson to Obama and Bush, students explore the fascinating story of government in the United States. This in-depth study of the American political and legal systems begins with an examination of the U.S. Constitution and the intentions of the Founding Fathers. Students analyze the pivotal roles of legislative bodies, executive officials, and the courts in governmental decision-making. Students also explore the influence of political parties, public opinion, interest groups, and foreign governments upon American governmental processes.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Economics

Social Studies

Prerequisites (Required): None

In Economics, students learn how what people want and what they need influence the development of societies. They explore the limits that time, money, energy, and resources place upon satisfying the diverse needs and wants of a society. Students discover how economic systems manage these limitations by developing systems of exchange and balancing the use of scarce resources. Students also examine the local and global consequences of economic decisions, the role of technology in economics, and the function of government in shaping economic policy.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Honors Program

English 1: Survey of Literature

Language Arts

Prerequisites (Required): None

Students investigate the connections between literature, culture, and their own life experiences, and learn to clearly express their ideas and opinions. Reading selections include novels, short stories, and poetry representing a broad cross-section of American subcultures and literary traditions. The course also builds fundamental writing and communication skills as it introduces students to the writing process and the basic principles of academic research. The course gives students the tools to read and communicate with deep understanding, clarity, and conviction.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

English 2: World Literature

Language Arts

Prerequisites (Required): None

This course introduces students to major literary traditions from all corners of the globe. Reading selections include novels, short stories, epic poetry, drama, and mythology spanning the millennia of human history. In addition to evaluating the plots and characters of well-known writers, students learn to identify themes, create dialogue, and appeal to emotions. They study various forms of communication including oral, visual, electronic, and textual. As students explore various eras and cultures through literature, they also build proficiency in writing, literary analysis, and critical thinking. Students learn to communicate their own dreams, goals, and aspirations with clarity and conviction.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

English 3: American Literature

Language Arts

Prerequisites (Required): English 2

Is there a better way to learn about literature than going right to the source? The Virtual Times is a newspaper delivered straight from the American past to students' doorstep (or computer screen). Organized around the theme of this virtual paper, the course delivers novels, drama, poetry, short films, and nonfiction that students analyze in terms of theme, literary devices, historical context, and point of view. Students learn to appreciate audience and purpose in what they read and write, as well as draw inferences. They produce a variety of writings, including journals, creative pieces, and analytic, expository, persuasive, and research essays. Students expand their vocabulary, demonstrate advanced research skills, and improve their oral communications skills. As virtual reporters investigating classic works of literature, students gain exposure to American authors and learn to appreciate what literature teaches about the time in which it was written.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

English 4: Interacting with Literature

Language Arts

Prerequisites (Required): English 3

In English 4, students master the literary and reading skills needed for success in college or career. Students select the literature of most interest to them in the genres of novels, short stories, drama, poetry, and nonfiction. They learn to analyze literary works with a critical eye, forming opinions based on evidence and persuasively expressing their own ideas. Students produce a variety of writings, gaining the vocabulary, literary techniques, and research skills to communicate effectively. Students also explore options for the future, and build a project around their chosen path that provides them with a plan to achieve their post-high school goals.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Algebra 1

Mathematics

Prerequisites (Required): None

Students gain the knowledge needed for success in their high school mathematics courses. The course emphasizes the use of algebra in everyday life—in sports, travel, business, and health—and students practice using algebra to solve real-world problems. The course presents algebra concepts in a user-friendly manner and gives students hands-on practice through animations, graphics, audio components, and interactive graphs. Students see problems solved step by step on their computer screens, while engaging labs make numbers, graphs, and equations come alive. This course gives students the skills, strategies, and confidence to solve all kinds of mathematical problems.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Algebra 2

Mathematics

Students continue to build skills and confidence in algebra. The course includes hands-on activities, applications, group interactions, and cutting-edge technology that keep students engaged. After a review of basic algebra, students learn how to work with polynomials, quadratic equations, exponential and logarithmic relations, probability, and statistics. To learn how algebra is used in the real world, students jump into roles as employees of a fictional corporation, working their way up the corporate ladder with each successful assignment. In Algebra 2, students gain the algebra needed for success in school and career.

Prerequisites (Required): Algebra 1

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Geometry

Mathematics

This course takes students on a mathematical highway illuminated by spatial relationships, reasoning, connections, and problem solving. Students develop geometric skills, learn geometry concepts, and practice constructing formal logical arguments and proofs. Through exploration of real-world examples, students see that geometry is all around them—engineers use it to bank highways and build bridges, artists use it to create perspective in their paintings, and mapmakers help travelers find locations using the points located on a geometric grid. The course provides students with basic tools for understanding and solving problems in the real world.

Prerequisites (Required): Algebra 1

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Biology

Science

Students discover the nature of life through a study of matter, energy, chemical processes, genetics, DNA, and cells. They learn the scientific method and examine the traits and classifications of organisms from viruses and bacteria to plants and animals. Hands-on and virtual laboratory investigations enhance students' understanding of living things. The course covers some of the fastest growing areas of research in the biological sciences. By the end of the course, students will have developed a working definition of what constitutes life on Earth.

Prerequisites (Required): None

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Chemistry

Science

Students embark on a virtual tour to see chemistry in action. They visit such places as a petroleum refinery, a water treatment plant, a hospital, and even a scuba dive shop. From the largest nuclear power plant to the tiniest atom, students learn the basic ways that chemistry works and how scientists use it to make our lives better. Stressing the practical application of chemistry and its everyday uses, the course shows students how atoms, molecules, and elements join to make the water we drink, the air we breathe, and the gas that powers our cars. Hands-on laboratory investigations make concepts come alive and give students the chance to think like scientists.

Prerequisites (Required): Algebra 1, Biology

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Earth Space Science

Science

Students explore the world and the universe. They journey from the sun and the moon across the oceans and continents down to the rocks and minerals and inside volcanoes and earthquakes. Students discover the history of the Earth, including fossils, the ice age, and glaciers. They learn about the weather and atmosphere and how winds and fronts work. Students explore space and the solar system and learn all about the Earth's water. The course engages students through hands-on activities, in which they gather data from their surrounding and interpret results like real scientists.

Prerequisites (Required): None

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Physics

Science

Prerequisites (Required): None

In this course, students enter "Physics World," inhabited by great minds like Galileo, Newton, and Einstein. Students witness how physics has progressed over time due to the observation, experimentation, and insights of these scientific geniuses. Students learn the concepts, theories, and laws that govern the interaction of matter, energy, and forces. From tiny atoms to galaxies with millions of stars, students observe the universal laws of physics and learn to apply such laws. Using laboratory activities, videos, software, and websites, students follow in the footsteps of some of the world's greatest thinkers.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

American History

Social Studies

Prerequisites (Required): None

Students investigate the history of the United States from the era of slavery to the present. The course takes students through a series of court cases that illuminate critical turning points and issues in American history. Students conduct research focused on the historical era in which the case occurred, and use primary and secondary sources to build persuasive arguments. As students consider questions about slavery, rights, regulation of business, religious freedom, and maintaining a stable world order, they begin to appreciate the complexity of the American story. The course also challenges students to apply their knowledge and perspective of history to interpret the events of today.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

World History

Social Studies

Prerequisites (Required): None

World History introduces students to the concept of a global community. Whether exploring ancient Egypt, medieval Europe, or post-war Japan, students learn the impact that ancient and modern civilizations have upon their own lives and current events. In the course, students act as curators of the "Windows of the World Museum." They design exhibits that highlight the development of different cultures in the areas of art, commerce, politics, geography, religion, and science. By exploring what various artifacts, data, and sources reveal about human activity, students make connections between the past, present, and future. Students also develop their research skills, and learn to effectively communicate their ideas in writing.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

American Government

Social Studies

Prerequisites (Required): None

From Washington and Jefferson to Obama and Bush, students explore the fascinating story of government in the United States. This in-depth study of the American political and legal systems begins with an examination of the U.S. Constitution and the intentions of the Founding Fathers. Students analyze the pivotal roles of legislative bodies, executive officials, and the courts in governmental decision-making. Students also explore the influence of political parties, public opinion, interest groups, and foreign governments upon American governmental processes.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

Economics

Social Studies

Prerequisites (Required): None

In Economics, students learn how what people want and what they need influence the development of societies. They explore the limits that time, money, energy, and resources place upon satisfying the diverse needs and wants of a society. Students discover how economic systems manage these limitations by developing systems of exchange and balancing the use of scarce resources. Students also examine the local and global consequences of economic decisions, the role of technology in economics, and the function of government in shaping economic policy.

Prerequisites (Recommended): None

KVE Credits: 0.5

Level: HS

AP Program

AP English Literature and Composition

Language Arts

Prerequisites (Required): English 3

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

AP English Literature and Composition engages students in the careful reading and critical analysis of imaginative literature. The course invites students to the "AP Dinner Party," where menu items include reading, analyzing, rewriting, and discussing the poetry, novels, short stories, drama, and expository prose written by renowned authors. Through close reading of the works of these authors, students discover the various ways writers use language to provide meaning and pleasure for their readers. The course requires intensive concentration on composition skills (of both student and author) in the areas of structure, style, and theme. Students analyze authors' narrative techniques, including the use of figurative language, imagery, symbolism, and tone. Students choosing this course should be interested in studying literature of various periods and genres and using this wide reading knowledge in discussions of literary topics. The course equips students with the reading, writing, and analytical skills needed for success in college, in career, and on the AP exam.

AP English Language and Composition

Language Arts

Prerequisites (Required): English 2

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Is there a better way to learn about language and writing than going right to the source? The Virtual Times is a newspaper delivered straight from the past to students' doorstep (or computer screen). Organized around the theme of this virtual paper, the course covers studying and writing analytic and persuasive essays on topics in language, rhetoric, and expository writing. Students become skilled readers of prose written in various periods, disciplines, and rhetorical contexts. Both their reading and writing help make students aware of the interactions among a writer's purposes, audience expectations, and subjects, as well as the way writing conventions and language contribute to effectiveness in writing. Fiction and poetry are included in order to help students understand rhetorical and linguistic devices. Students choosing this course should be interested in studying and writing various kinds of analytic or persuasive essays on nonliterary topics. This course effectively prepares students for the AP Exam by enabling them to read, comprehend, and write about complex texts, while developing further communication skills on a college level.

AP Statistics

Mathematics

Prerequisites (Required): Algebra 2

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

In this course, students learn the vocabulary, method, and meaning in the statistics that exist in the world around them. General themes of study include exploring data, planning and designing a study, anticipating patterns, and statistical inference. Rather than simply memorizing information, students investigate real-world examples and develop a deep understanding of the methods, interpretation, communication, and application of statistics. They complete several open-ended performance tasks that require them to connect multiple statistical topics together. Students use the TI83+/84 OR 89 calculator and computers to explore the world of data, patterns, and statistical relationships. The course prepares students for the AP Exam by introducing them to the concepts and tools for collecting, analyzing, and drawing conclusions from data.

AP Calculus AB

Mathematics

Prerequisites (Required): Geometry, Algebra 2,
Pre-Calculus or Trigonometry

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Students develop an understanding of the concepts of calculus and gain experience with its methods and applications. Through a multi-representational approach, students work with concepts, results, and problems represented graphically, numerically, analytically, and verbally, and they learn the importance of connections among these representations. Major topics include graphs, limits, derivatives, and integrals. Students learn how calculus is applied to a variety of functions such as increasing and decreasing functions, transcendental functions like logarithmic and exponential functions, and trigonometric functions. Students develop facility with the technology used to solve problems, conduct experiments, interpret results, and support conclusions. This course prepares students to take the AP Exam and is the equivalent of a college-level course in calculus.

AP Calculus BC

Mathematics

Students develop an understanding of the concepts of calculus and gain experience with its methods and applications. Interactive text, graphing software, mathematics symbol software, and hands-on activities create a stimulating and engaging learning environment. Through a multi-representational approach, students work with concepts, results, and problems represented graphically, numerically, analytically, and verbally, and they learn the importance of connections among these representations. Major topics include graphs, limits, derivatives, integrals, and infinite sequences and series. The course also covers parametric, polar, and vector functions and derivatives, applications of integrals, and supplementary detail in the study and application of derivatives and anti-derivatives. Students develop facility with the technology used to solve problems, conduct experiments, interpret results, and support conclusions. This course prepares students to take the AP Exam and is the equivalent of a college-level course in calculus.

Prerequisites (Required): Geometry, Algebra 2, Pre-Calculus or Trigonometry

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

AP Chemistry

Science

Through fascinating, elaborative lessons and lab work, students attain a deep understanding of chemistry fundamentals and learn how to solve chemical problems. The course covers topics such as the structure of matter, states of matter, chemical reactions, kinetic theory of gases, chemical equilibria, chemical kinetics, and thermodynamics. In hands-on lab experimentation, students learn to make observations of chemical reactions and substances; record data; and calculate, interpret, and communicate results. They explore how chemistry is involved in environmental and social issues in the world around them. Students gain the skills to arrive at conclusions based on informed judgment and express their ideas in persuasive essays with clarity and logic. This course effectively prepares students to take the AP Exam.

Prerequisites (Required): Algebra 2, Biology, Chemistry

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

AP Physics B

Science

This course offers a non-calculus survey covering five general areas: Newtonian mechanics, thermal physics, electricity and magnetism, waves and optics, and atomic and nuclear physics. Students learn to think like scientists—making predictions based on observations, writing hypotheses, designing and completing experiments, and reaching conclusions based on the analysis of data derived from these experiments. Students apply the concepts of physics to their everyday experiences and learn to use the principles of physics to solve real-life problems. They learn about matter, energy, and how the universe is put together. The course prepares students to take the AP Exam by providing a systematic development of the main principles of physics and developing a deep understanding of physics concepts. This course provides a strong foundation for those students interested in pursuing the life sciences, premedicine, and other applied sciences; it is not typically appropriate for students interested in engineering or physical sciences at the college level.

Prerequisites (Required): Physics, Algebra 2, Trigonometry or Pre-Calculus

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

AP Biology

Science

Students prepare for the AP Exam through this hands-on, interactive exploration of the nature of life. They engage in a wide variety of activities with substantial emphasis on interpreting and collecting data in virtual labs, writing analytical essays, and mastering biology concepts and connections. The major themes of the course are organisms and populations, molecules and cells, and heredity and evolution. Key topics include scientific processes; the effects of science on technology and society; the chemistry and make up of living organisms; and genetics, diversity, and evolution. The course stresses concepts over facts, making this college-level study of biology not only less overwhelming, but also more meaningful and engaging.

Prerequisites (Required): Biology, Chemistry, Algebra 1

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

AP Microeconomics

Social Studies

Prerequisites (Required): None

In AP Microeconomics, students learn about the economic principles that govern individual producers and consumers within an economic system. The course covers product markets, factor markets, market failure, and the role of government in a country's economy. To give them a first-hand look at economics in action, students take on the role of president of a company in the "Macro Islands." In order to run the company effectively, they must learn all about supply and demand, production costs, public goods, labor, competition, and more. The course prepares students for success on the AP Exam and is the equivalent of a college-level course in microeconomics.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

AP Macroeconomics

Social Studies

Prerequisites (Required): None

AP Macroeconomics provides students with a thorough understanding of the economic principles that apply to an economic system as a whole. Students learn about scarcity, national income, price determination, economic performance measures, the financial sector, stabilization policies, inflation, unemployment, economic growth, and international economics. To give them a first-hand look at economics in action, the course engages students as financial advisors hired to turn around a crumbling economy in the "Macro Islands." The course prepares students for success on the AP Exam and is the equivalent of a college-level course in macroeconomics.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

AP United States Government and Politics

Social Studies

Prerequisites (Required): None

Students study the intricacies of American political culture, gaining an analytical perspective on government in the United States. Course content is organized around a movies motif—the drama of American politics unfolds as students get a behind-the-scenes glimpse into America's political arena. Students delve into primary documents and go "on location" with government leaders such as the President, members of Congress, and Supreme Court justices. They research the roles of the media, political parties, interest groups, states, candidates, bureaucracy, and the public in the governmental process. Finally, students witness the large-scale production of policy building in the areas of economic and social policy, foreign policy, and public administration. The course prepares students for the AP Exam by covering important facts; patterns of political processes; analysis of relevant data; and critical analysis, application, and comparisons of theories and concepts.

Prerequisites (Recommended): American History

KVE Credits: 1

Level: HS

AP United States History

Social Studies

Prerequisites (Required): None

From pre-Columbian societies to America's role in today's post-Cold War world, this course gives students the factual knowledge and analytical skills needed to work critically with the problems, events, and materials in U.S. history. The course presents the study of U.S. history through the motif of a historical/news magazine: students are historical researchers and aspiring writers intent on investigating and reporting on the issues and events in America's past. As they conduct their research, students evaluate and compare the importance, relevancy, and biases of both primary and secondary documentation, and use these sources to support their own arguments. Students develop the skills necessary to arrive at conclusions based on informed judgment and to present their reasons and evidence in persuasive essays. With substantial emphasis on interpreting documents, writing analytical essays, mastering factual content, and comparing trends and developments over time, this course effectively prepares students for the AP Exam.

Prerequisites (Recommended): World History

KVE Credits: 1

Level: HS

AP World History

Social Studies

Prerequisites (Required): None

From 8000 BCE to the turn of the second millennium, this course highlights the nature of change in global frameworks and comparisons among major societies. As curators for the "Windows of the World Museum," students design virtual exhibits to demonstrate their understanding of world events and cultures. Reviewing historical evidence as a historian would, students learn to analyze and interpret primary sources and data. Students develop greater understanding of the evolution of global processes and contacts in different types of human societies. The course offers balanced world coverage, with Africa, the Americas, Asia, Europe, and Oceania all represented. This course prepares students for the AP Exam by emphasizing relevant factual knowledge, leading interpretive issues, and college-level analytical skills.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

AP Spanish

Foreign Language

Prerequisites (Required): Spanish 3

This course develops students' interpersonal communication skills in Spanish and prepares them for the AP Spanish Language Exam. Through continuous integration of language skills (reading, writing, listening, and speaking) with a rigorous review of grammatical structures, students develop a strong command of the language. Highly engaging course content, aural materials, and interactive simulations give students extensive opportunities to integrate reading, writing, and speaking. Students are exposed to the literature, history, and current events of Spanish-speaking countries through newspapers, magazines, music, movies, radio and television productions, literary texts, and virtual field trips. Students use Spanish to access information and to compare cultural elements of Spanish-speaking countries with their own. The course is conducted almost exclusively in Spanish, and students regularly interact with each other and the teacher in Spanish.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

AP Environmental Science

Science

Prerequisites (Required): Algebra 1, Biology, Chemistry

AP Environmental Science provides students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. Through engaging, hands-on laboratory experimentation and field investigation, students learn to appreciate the real-world applications of what they are learning. The course explores the following major themes: the scientific process, energy conversion, the Earth as an interconnected system, the human impact on natural systems, the cultural and social context of environmental issues, and the achievement of sustainable systems as a requisite for human survival. Students learn to identify and analyze environmental problems both natural and human-made, evaluating related risks and examining alternative solutions for resolving or preventing them. Students attain the factual knowledge, lab experience, and analytical skills required for success on the AP Exam.

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS

Prerequisites (Required): None

Prerequisites (Recommended): None

KVE Credits: 1

Level: HS