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# GST BOCES VIRTUAL LEARNING CATALOG



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# HIGH SCHOOL COURSES

## Advanced Placement

### **Advanced Placement Art History—Florida Virtual**

Pre-Requisites: Due to the mature content, this course is recommended for students in grades 10, 11, and 12 in conjunction with or upon successful completion of World History.

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments / 32-36 weeks

Description: Within AP Art History, students will explore the interconnections between art, culture, and historical context using critical analysis through the critical lenses of artistic expression, cultural awareness, and purpose. Using a defined art historical skill set and reflective learning, students will analyze relationships across cultures with a global lens. The examination of how people have responded to and communicated their experiences through art will enable students to think conceptually about art ranging from prehistoric to contemporary. Students will be active participants, engaging with art and its context as they read, research, and collaborate to learn about art, artists, art making, and responses to and interpretations of art. Follow the link below for the College Board description of this course:

<https://apstudent.collegeboard.org/apcourse>

### **Advanced Placement Biology—Florida Virtual**

Pre-Requisites: Biology 1, Chemistry 1 and Algebra 1 recommended

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments / 32-36 weeks

Description: This challenging course is designed to provide a college-level experience and prepare students for the AP exam in early May. Over two semesters, students are engaged in a wide variety of activities, with substantial emphasis on interpreting and collecting data in virtual labs, writing analytical essays, and mastering biological concepts and connections. The key themes of the AP Biology course are the scientific processes, the effects of science on technology and society, the chemistry and make-up of living organisms, genetics, diversity, and evolution. Throughout this course, students are expected to answer questions, analyze data, discuss real-world connections, and complete lab activities. The primary emphasis is to develop an understanding of concepts rather than memorizing terms and technical details. Access the site link below to view the PDF of the course description from the College Board:

<http://apcentral.collegeboard.com/apc/public/repository/ap-biology-course-description.pdf>

### **Advanced Placement Calculus AB—Florida Virtual**

Pre-Requisites: Algebra I, Geometry, Algebra II, & Pre-Calculus or Trigonometry/Analytical Geometry

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments / 32-36 weeks

Description: Students in this course will walk in the footsteps of Newton and Leibnitz.

An interactive course framework combines with the exciting on-line course delivery to make calculus an adventure. The course includes a study of limits, continuity, differentiation, and integration of algebraic, trigonometric, and transcendental functions, and the applications of derivatives and integrals. An Advanced Placement (AP) course in calculus consists of a full high school year of work that is comparable to calculus courses in colleges and universities. It is expected that students who take an AP course in calculus will seek college credit, college placement, or both, from institutions of higher learning. Most colleges and universities offer a sequence of several courses in calculus, and entering students are placed within this sequence according to the extent of their preparation, as measured by the results of an AP examination or other criteria.

[http://apcentral.collegeboard.com/apc/public/repository/ap08\\_calculus\\_coursedescrip.pdf](http://apcentral.collegeboard.com/apc/public/repository/ap08_calculus_coursedescrip.pdf)

## **Advanced Placement Calculus BC—Florida Virtual**

Pre-Requisites: Algebra I, Geometry, Algebra II, & Pre-Calculus or Trigonometry/Analytical Geometry.

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments / 32-36 weeks

Description: Students in this course will walk in the footsteps of Newton and Leibnitz.

An interactive course framework combines with the exciting on-line course delivery to make calculus an adventure. The course includes a study of limits, continuity, differentiation, and integration of algebraic, trigonometric, and transcendental functions; the applications of derivatives and integrals; infinite series; parametric equations; and polar equations. An Advanced Placement (AP) course in calculus consists of a full high school year of work that is comparable to calculus courses in colleges and universities. It is expected that students who take an AP course in calculus will seek college credit, college placement, or both, from institutions of higher learning. Most colleges and universities offer a sequence of several courses in calculus, and entering students are placed within this sequence according to the extent of their preparation, as measured by the results of an AP examination or other criteria.

[http://apcentral.collegeboard.com/apc/public/repository/ap08\\_calculus\\_coursedescrip.pdf](http://apcentral.collegeboard.com/apc/public/repository/ap08_calculus_coursedescrip.pdf)

## **Advanced Placement Chemistry—APEX**

AP Chemistry builds students' understanding of the nature and reactivity of matter. After studying chemical reactions and electrochemistry, students move on to understand how the chemical and physical properties of materials can be explained by the structure and arrangements of the molecules and the forces between those molecules. Students will examine the laws of thermodynamics, molecular collisions, and the reorganization of matter in order to understand how changes in matter take place. Finally, students will explore chemical equilibria, including acid-base equilibria. The equivalent of an introductory college-level chemistry course, AP Chemistry prepares students for the AP exam and for further study in science, health sciences, or engineering. The AP Chemistry course provides a learning experience focused on allowing students to develop their critical thinking skills and cognitive strategies. Frequent no- and low-stakes assessments allow students to measure their comprehension and improve their performance as they progress through each activity. Students regularly engage with primary source materials, allowing them to practice the critical reading and analysis skills that they will need in order to pass the AP exam and succeed in a college chemistry course. Students perform hands-on labs that give them insight into the nature of science and help them understand chemical concepts, as well as how evidence can be obtained to support those concepts. Students also complete several virtual lab studies in which they form hypotheses; collect, analyze, and manipulate data; and report their findings and conclusions. During both virtual and traditional lab investigations and research opportunities, students summarize their findings and analyze others' findings in summaries, using statistical and mathematical calculations when appropriate. Summative tests are offered at the end of each unit as well as at the end of each semester, and contain objective and constructed response items. Robust scaffolding, rigorous instruction, relevant material, and regular active learning opportunities ensure that students can achieve mastery of the skills necessary to excel on the AP exam. This course has been authorized by the College Board® to use the AP designation.

## **Advanced Placement Computer Science A—Florida Virtual**

Pre-Requisites: Algebra I, Geometry, & Algebra II

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments/ 32-36 weeks

Description: Students must take the Advanced Placement Exam in order to receive Advanced Placement credit. The AP Computer Science A course is equivalent to the first semester of a college level computer science course. The course involves developing the skills to write programs or part of programs to correctly solve specific problems. AP® Computer Science A also emphasizes the design issues that make programs understandable, adaptable, and when appropriate, reusable. At the same time, the development of useful computer programs and classes is used as a context for introducing other important concepts in computer science, including the development and analysis of algorithms, the development and use of fundamental data structures, and the study of standard algorithms and typical applications. In addition an

understanding of the basic hardware and software components of computer systems and the responsible use of these systems are integral parts of the course. Access the site link below to view the course description from the College Board: <https://apstudent.collegeboard.org/apcourse/ap-computer-science-a>

## **Advanced Placement English Language and Composition—Florida Virtual**

Pre-Requisites: English I & II

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments / 32-36 weeks

Description: This course provides high school students with college-level instruction in studying and writing various kinds of analytic or persuasive essays on literary and nonliterary topics in language, rhetoric, and expository writing. Students become skilled readers of prose written in various periods, disciplines, and rhetorical contexts. Both reading and writing should make students aware of the interactions among a writer's purposes, audience expectations, and subjects as well as how writing conventions and language contribute to effectiveness in writing. This course will effectively prepare 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. Access the site link below to view the PDF of the course description from the College Board: <http://apcentral.collegeboard.com/apc/public/repository/ap-english-course-description.pdf>

## **Advanced Placement English Literature and Composition—Florida Virtual**

Pre-Requisites: English I, II, & III

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments/32-36 weeks

Description: Access the site link below to view the PDF of the course description from the College Board: <http://apcentral.collegeboard.com/apc/public/repository/ap-english-course-description.pdf>

## **Advanced Placement Environmental Science—Florida Virtual**

Pre-Requisites: Algebra I and two years of high-school science, with labs

Credits: 0.5 (per segment)

Estimated Completion Time: 2 Segments/ 32–36 weeks

Description: The goal of AP Environmental Science is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world and to identify and analyze environmental problems that are natural and human-made. Students will evaluate the relative risks associated with these problems and examine alternative solutions for resolving or preventing problems. Laboratories support student content mastery in both hands-on and virtual experiences. Access the site link below to view the PDF of the course description from the College Board: <http://apcentral.collegeboard.com/apc/public/repository/ap-environmental-science-course-description.pdf>

Note: This course meets one required science credit for high school graduation.

## **AP French Language and Culture (Provided by Middlebury)—FuelEd**

The AP French Language and Culture course is an advanced language course that prepares students for the AP French Language and Culture Exam. It uses as its foundation the three modes of communication: interpersonal, interpretive, and presentational. The course is conducted almost exclusively in French, and is based on the six themes required by the College Board: (1) global challenges, (2) science and technology, (3) contemporary life, (4) personal and public identities, (5) families and communities, and (6) beauty and aesthetics. The course teaches language structures in context and focuses on the development of fluency to convey meaning. Students should expect to listen to, read, and understand a wide variety of authentic French-language materials and sources; demonstrate proficiency in interpersonal, interpretive, and presentational communication using French; gain knowledge and understanding of the cultures of the Francophone world; use French to connect with other disciplines and expand knowledge in a wide variety of contexts; develop insight into the nature of the French language and its culture; and use French to participate in communities at home and around the world.

The AP French Language and Culture course is a college-level course. The intensity, quality, and amount of course material can be compared to that of a third-year college course. Prerequisites: Strong success in French III, or success in French IV (or equivalents), and teacher/school counselor recommendation.

## **Advanced Placement Human Geography—Florida Virtual**

Pre-Requisites: There are no required prerequisites, but strong reading and writing skills are recommended.

Credits: 0.5 (per segment)

Estimated Completion Time: 2 Segments/ 32–36 weeks

Description: The AP® Human Geography course is designed to provide college level instruction on the patterns and processes that impact the way humans understand, use, and change Earth's surface. Students use geographic models, methods, and tools to examine human social organization and its effect on the world in which we live. Students are challenged to use maps and geographical data to examine spatial patterns and analyze the changing interconnections among people and places. Access the site link below to view the PDF of the course description from the College Board: <http://apcentral.collegeboard.com/apc/public/repository/ap-human-geography-course-description.pdf>

## **Advanced Placement Macroeconomics—Florida Virtual**

Pre-Requisites:

Credits: 0.5 (per segment)

Estimated Completion Time: 1 segment / 16-18 weeks

Description: You have been called upon to assist the leader of the Macro Islands who is running for reelection next year. The economy is in shambles, and you need to come up with some feasible solutions. This will not only help the people of the Macro Islands but will also ensure a victory for your employer. You were hired through the Internet and are being invited to travel first class to the Macro Islands where you can learn firsthand about the situation. You arrive at Pineapple Airport in the middle of the day and are met by a man with a briefcase who is holding a sign with your name on it. You approach the man and introduce yourself. "I'm Mr. Scarcity," he says. "I'll be your guide as you learn about the economic situation of the islands. You need to learn everything you can about macroeconomics and the Macro Island's economy for your presentation to our island leader in May." (Your AP Exam) Access the site link below to view the PDF of the course description from the College Board: <http://apcentral.collegeboard.com/apc/public/repository/ap-economics-course-description.pdf> Note: This course meets the Economics high school graduation requirement.

## **Advanced Placement Microeconomics—Florida Virtual**

Pre-Requisites:

Credits: 0.5 (per segment)

Estimated Completion Time: 1 segment / 16-18 weeks

Description: You traveled to the Micro Islands to assist the leader in winning re-election. You came for a job, but you realized as you were working that you loved the islands and wanted to make your home there. Because you are adept at giving economic advice to the leader, you have been appointed as the new President of the Sunny Seas Shell Company. As part of your role in assuming the leadership duties of the company, you will need to brush up on microeconomics. The Board of Directors has appointed Ms. Equilibrium to act as your personal assistant and advisor as you transition into your new role. You will be learning all you can about microeconomics and will be required to exhibit your knowledge in May at the annual Board of Directors' meeting (the AP Exam). Access the site link below to view the PDF of the course description from the College Board: <http://apcentral.collegeboard.com/apc/public/repository/ap-economics-course-description.pdf>

## **Advanced Placement Psychology—Florida Virtual**

Pre-Requisites:

Credits: 0.5 (per segment)

Estimated Completion Time: 2 Segments / 32-36 weeks

Description: AP Psychology is a college-level course providing students an overview of the development of human behaviors and thoughts. Along with preparation for the AP Psychology exam, the goals of this course are to immerse students in modern psychological investigation techniques, to accentuate the ethics and morality of human and animal research, and to emphasize scientific critical thinking skills in application to the social sciences. Psychology is a diverse social and biological science with multiple perspectives and interpretations. The primary emphasis of this course is to help students develop an understanding of concepts rather than memorize terms and technical details; the ultimate goal is to prepare students to successfully take the AP Psychology examination offered in May. Access the site link below to view the PDF of the course description from the College Board: <http://apcentral.collegeboard.com/apc/public/repository/ap-psychology-course-description.pdf>

## **Advanced Placement Spanish Language—APEX**

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

\*Advanced Placement® and AP® are registered trademarks and/or owned by the College Board, which was not involved in the production of, and does not endorse this product.

## **Advanced Placement Statistics--Florida Virtual**

Pre-Requisites: Algebra II

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segment course/ 32 - 36

Description: This course is designed to provide college-level instruction on the concepts and tools for working with data. Students collect and analyze data and draw conclusions based on real-world information. The course challenges students to explore patterns, think critically, use a variety of tools and methods, and report their findings and conclusions.

Access the site link below to view the PDF of the course description from the College Board:

<http://apcentral.collegeboard.com/apc/public/repository/ap-statistics-course-description.pdf>

## **Advanced Placement United States Government and Politics—Florida Virtual**

Pre-Requisites: United States History recommended

Credits: 0.5 (per segment)

Estimated Completion Time: 1 segment / 16-18 weeks

Description: Lights, Camera, Action" ...Prepare to study the intricacies of the American Political Culture. The script is written and the actors participate daily in the drama of American politics. You will be "on location" to delve into primary source documents. You will go behind the scenes with stars such as the President, Congress people, and Supreme Court Justices. You will research the roles of the media, political parties, interest groups, states, candidates, bureaucracy, and the public in the governmental process. Finally, you will witness the large- scale production of policy building in the areas of economic/social policy, foreign policy and public administration. View the PDF of the course description from the College Board: <http://apcentral.collegeboard.com/apc/public/repository/ap-govt-politics-course-description.pdf>

## **Advanced Placement United States History—Florida Virtual**

Pre-Requisites: There are no required prerequisites, but strong reading and writing skills are highly recommended.

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments/32-36 Weeks

Description: Within AP U.S. History, students will develop and use historical thinking skills (chronological reasoning, comparison and contextualization, crafting historical arguments from historical evidence, and historical interpretation and synthesis) to examine the history of the United States from 1491 to the present. Students will learn through active participation as they analyze sources and collaborate to gain a conceptual understanding of U.S. history. The AP U.S. History course is structured around nine time periods outlined within the College Board Advanced Placement United States History Framework. Each time period is divided into key concepts meant to contextualize history and show continuity and well as change over time. The intention is for students to explore history, establishing economic, political, and social patterns. Follow the link below for the College Board description of this course:

[http://apcentral.collegeboard.com/apc/public/courses/teachers\\_corner/index.html](http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/index.html)

## **AP World History—FuelEd**

This course spans the Neolithic Age to the present in a rigorous academic format organized by chronological periods and viewed through fundamental concepts and course themes. Students analyze the causes and processes of continuity and change across historical periods. Themes include human–environment interaction, cultures, expansion and conflict, political and social structures, and economic systems. In addition to mastering historical content, students cultivate historical thinking skills that involve crafting arguments based on evidence, identifying causation, comparing and supplying context for events and phenomenon, and developing historical interpretation. This course prepares students for the AP World History Exam.

Prerequisites: Previous history course and teacher/school counselor recommendation

## **Electives & CTE**

### **Academic Skills—Advanced Academics**

If you want to learn to play guitar, you must learn chords and scales and put in a lot of time practicing. If you are interested in painting, you should learn color schemes and brushstroke techniques and practice often. Similarly, if you want to be a better learner, you should study techniques and methods to help you reach this goal. In Academic Skills, a one-semester course, you will learn how to study, identify and use your learning style, manage time, organize new information, research and write about your findings, and use effective test-taking skills.

These techniques are not only useful in high school and college but will also help you learn things throughout your life, especially work skills or hobbies. Of course, just like learning guitar or beginning to paint, you will need to practice these techniques often to become a better learner.

### **Accounting—FuelEd**

In this introductory course, students gain a foundation in the skills needed for college accounting courses, office work, and managing their own small businesses. They also build an appreciation for the role of accounting in managing a profitable business. The course provides an overview of the three forms of accounting: financial, cost, and management accounting. Instructional material covers the basic concept conventions and rules of the double entry system—and includes techniques for analyzing ratios from a balance sheet. The concepts of ethics, integrity, confidentiality, and rigor are woven through all the units. Prerequisites: None



## **Astronomy (provided by eDynamic)--FuelEd**

Why do stars twinkle? Is it possible to fall into a black hole? Will the sun ever stop shining? Since the first glimpse of the night sky, humans have been fascinated with the stars, planets, and universe.

This course introduces students to the study of astronomy, including its history and development; basic scientific laws of motion and gravity; the concepts of modern astronomy; and the methods used by astronomers to learn more about the universe. Additional topics include the solar system; the Milky Way and other galaxies; and the sun and stars. Using online tools, students examine the life cycle of stars, the properties of planets, and the exploration of space.

Prerequisites: None

## **Business Applications—APEX**

Business Applications prepares students to succeed in the workplace. Students begin by establishing an awareness of the roles essential to an organization's success, and then work to develop an understanding of professional communications and leadership skills. In doing so, students gain proficiency with word processing, email, and presentation management software. This course allows students to explore careers in business while learning skills applicable to any professional setting. Through a series of hands-on activities, students will create, analyze, and critique reports, letters, project plans, presentations, and other professional communications. Regular engagement in active learning ensures students can continually refine the skills necessary to prepare them for work. In addition, students will evaluate the qualifications required for specific careers so they can identify opportunities that are of interest to them. Business Applications is an introductory level Career and Technical Education course applicable to programs of study in business, management, and administration; information technology; and other career clusters. This course is aligned with state and national standards. Students who successfully complete the course can go on to obtain the Microsoft® Office Specialist: Microsoft® Office Word certification.\*

\*Microsoft is a registered trademark of Microsoft Corporation in the United States and/or other countries.

## **Careers in Criminal Justice—FuelEd**

The criminal justice system may be a good career option for students who want to help prevent crime and maintain order in society. This course provides an overview of the wide range of career opportunities in the criminal justice system, from law enforcement to forensic scientists to lawyers and judges. Students will learn about the trial process, the juvenile justice system, and the correctional system. Students will explore careers in each area, including job expectations and training requirements. Prerequisites: None

## **Computer Fundamentals—FuelEd**

In this two-semester introductory course, students become familiar with the basic principles of a personal computer, including the internal hardware, the operating system, and software applications. Students practice using key applications such as word processors, spreadsheets, and presentation software, and examine social and ethical issues around the Internet, information, and security. In the first semester, the focus is on the fundamentals: learning and using applications and understanding the basic roles and responsibilities of software, hardware, and operating systems. In the second semester, the focus is on gathering and analyzing data, and using the right tools and methods to collect and present data. This course should not be taken if the student has already completed Computer Literacy. Prerequisites: None

## **Computer Literacy—FuelEd**

Students must be able to use technology effectively to research, organize, create, and evaluate information. In this introductory course, students become familiar with the basic principles of a personal computer, including the internal hardware, operating system, and software applications. Students practice using key applications such as word processing, spreadsheet and presentation software, and examine social and ethical issues around the Internet, information, and security. In the first part of the course, the focus is on the fundamentals: learning and using applications, and understanding

the basic roles and responsibilities of the software, hardware, and operating system. The second part of the course focuses on gathering and analyzing data, and using the right tools and methods to collect and present data.

## **Computer Science—FuelEd**

This course introduces students to computer science concepts such as computer architecture, networks, and the Internet. Students use object-oriented programming, event-driven processes, modular computer programming, and data manipulation algorithms to produce finished software programs. They use the design process to create many programs by determining specifications, designing the software, and testing and improving the product until it meets the specifications. By the end of this course, students will have a solid foundation for further study in this subject. Prerequisites: None

## **Criminology—FuelEd**

In the modern world, many citizens share a concern about criminal behaviors and intent. This course introduces students to the field of criminology, the study of crime. Students look at possible explanations for crime from psychological, biological, and sociological perspectives; explore the categories and social consequences of crime; and investigate how the criminal justice system handles criminals and their misdeeds. The course explores some key questions: Why do some individuals commit crimes while others do not? What aspects of culture and society promote crime? Why are different punishments given for the same crime? What factors—from arrest to punishment—help shape the criminal case process?

## **Early Childhood Education—FuelEd**

This course is for students who want to influence children during the most important years of human development—the first few years of life when they learn to walk, talk, run, jump, read, and write, among other milestones. The course focuses on how caregivers can help infants, toddlers, and children grow and develop in positive ways. Students learn how to create fun and educational environments for children; how to keep the environment safe for children; and how to encourage the health and well-being of infants, toddlers, and school-aged children. Prerequisites: None

## **Family and Consumer Science (provided by eDynamic)—FuelEd**

Student will develop skills and knowledge to help them transition into adult roles within the family. They learn to make wise consumer choices, prepare nutritious meals, contribute effectively as part of a team, manage a household budget, and balance roles of work and family. They gain an appreciation for the responsibilities of family members throughout the life span and the contributions to the well-being of the family and the community. Prerequisites: None

## **Forensic Science (provided by eDynamic)--FuelEd**

This one-semester course surveys key topics in forensic science, including the application of the scientific process to forensic analysis, procedures and principles of crime scene investigation, physical and trace evidence, and the law and courtroom procedures from the perspective of the forensic scientist. Through online lessons, virtual and hands-on labs, and analysis of fictional crime scenarios, students learn about forensic tools, technical resources, forming and testing hypotheses, proper data collection, and responsible conclusions. Prerequisites: Successful completion of at least two years of high school science, including Biology (Comprehensive); Chemistry (Comprehensive) is highly recommended; or equivalents.

## **Information Technology Applications—APEX**

Information Technology Applications prepares students to work in the field of Information Technology. Students will be able to demonstrate digital literacy through basic study of computer hardware, operating systems, networking, the Internet, web publishing, spreadsheets and database software. Through a series of hand-on activities, students will learn what to expect in the field of Information Technology and begin exploring career options in the field. Information Technology Applications is an introductory level Career and Technical Education course applicable to programs of study in information technology as

well as other career clusters. This course is aligned with state and national standards. Students who successfully complete the course will be prepared to pursue the Microsoft® Office Specialist certifications in Microsoft Word, Microsoft Excel and Microsoft Access, as well as IC3 certification.

### **International Business (provided by eDynamic)—FuelEd**

From geography to culture, global business is an exciting topic in the business community today. This course helps students develop the appreciation, knowledge, skills, and abilities needed to live and work in the global marketplace. It takes a global view of business, investigating why and how companies go international, and how they are more interconnected. Students gain an understanding of how economic, social, cultural, political, and legal factors influence both domestic and cross-border business. Business structures, global entrepreneurship, business management, marketing, and the challenges of managing international organizations are also explored. The course helps students cultivate a mindfulness of how history, geography, language, cultural studies, research skills, and continuing education are important in twenty-first century business activities. Prerequisites: None

### **Introduction to Entrepreneurship I—FuelEd**

In this introductory business course, students learn the basics of planning and launching their own successful business. Whether they want to start their own money-making business or create a non-profit to help others, this course helps students develop the core skills they need to be successful. They learn how to come up with new business ideas, attract investors, market their business, and manage expenses. Students hear inspirational stories of teen entrepreneurs who have turned their ideas into reality, and then they plan and execute their own business. Prerequisites: None

### **Introduction to Entrepreneurship II--FuelEd**

Students build on the business concepts they learned in Introduction to Entrepreneurship I. They learn about sales methods, financing and credit, accounting, pricing, and government regulations. They refine their technology and communication skills in speaking, writing, networking, negotiating, and listening. They enhance their employability skills by preparing job-related documents, developing interviewing skills, and learning about hiring, firing, and managing employees. Students develop a complete business plan and a presentation for potential investors. Prerequisites: Introduction to Entrepreneurship I (or equivalent)

### **Introduction to Marketing I--FuelEd**

Students find out what it takes to market a product or service in today's fast-paced business environment. They learn the fundamentals of marketing using real-world business examples. They learn about buyer behavior, marketing research principles, demand analysis, distribution, financing, pricing, and product management. Prerequisites: None

### **Introduction to Marketing II--FuelEd**

Students build on the skills and concepts learned in Introduction to Marketing I to develop a basic understanding of marketing principles and techniques. By the end of the course, they will have developed their own comprehensive marketing plan for a new business. Prerequisites: Introduction to Marketing I (or equivalent)

### **Life Skills—Advanced Academics**

No matter what you do, there is an essential set of skills that will help you to be successful in life's basic pursuits. Whether your future holds a college experience, technical school, the military, or a full-time career, Life Skills—a beginning-level, one semester course—will teach you the basic skills needed for life after high school. In addition to providing strategies for taking the ACT and SAT tests, this course will provide an informative timeline to help you stay on schedule with required tasks for graduating from high school and entering the outside world. This course will also cover important topics such as consumer protection, establishing credit, managing money, buying a car, and renting an apartment for the first time.

## **Philosophy (provided by eDynamic)—FuelEd**

This one-semester course takes students on an exciting adventure that covers more than 2,500 years of history! Along the way, they run into some very strange characters. For example, they read about a man who hung out on street corners, barefoot and dirty, pestering everyone he met with questions. They learn about another eccentric who climbed inside a stove to think about whether he existed. Despite their odd behavior, these and other philosophers of the Western world are among the most brilliant and influential thinkers of all time. As students learn about these great thinkers, they come to see how and where many of the most fundamental ideas of Western Civilization originated. Students also get a chance to ask themselves some of the same questions these great thinkers pondered. By the time they “close the book” on this course, students have a better understand themselves and the world around them—from atoms to outer space—and everything in between. Prerequisites: None

## **Principles of Information Technology—APEX**

Principles of Information Technology prepares students to succeed in the workplace. Students begin by establishing an awareness of the roles essential to an organization's success, and then work to develop an understanding of professional communications and leadership skills. In doing so, students gain proficiency with word processing, email, and presentation management software. Students will also be able to demonstrate digital literacy through basic study of computer hardware, operating systems, networking, the Internet, web publishing, spreadsheets and database software.

This course allows students to explore careers in information technology and business while learning skills applicable to any professional setting. Through a series of hands-on activities, students will create, analyze, and critique reports, letters, project plans, presentations, and other professional communications. Students will learn what to expect in the field of Information Technology and begin exploring career options in the field. Regular engagement in active learning ensures students can continually refine the skills necessary to prepare them for work. In addition, students will evaluate the qualifications required for specific careers so they can identify opportunities that are of interest to them.

Principles of Information Technology is a full-year introductory Career and Technical Education course applicable to programs of study in business, management, and administration; information technology; and other career clusters. This course is aligned with state and national standards. Students who successfully complete the course will be prepared to pursue the Microsoft® Office Specialist certifications in Microsoft Word, Microsoft Excel and Microsoft Access\*, as well as IC3 certification.\*Microsoft is a registered trademark of Microsoft Corporation in the United States and/or other countries.

## **Real World Parenting (provided by eDynamic)—FuelEd**

What is the best way to care for children and teach them self-confidence and a sense of responsibility? Parenting involves more than having a child and providing food and shelter. In this one-semester course, students learn what to prepare for, what to expect, and what vital steps parents can take to create the best environment for their children. Parenting roles and responsibilities, nurturing and protective environments for children, positive parenting strategies, and effective communication in parent–child relationships are some of the topics covered in this course. Prerequisites: None

## **Sports and Entertainment Marketing (provided by eDynamic)—FuelEd**

A career in sports and entertainment marketing may be just the thing for students who dream about playing sports professionally or becoming an agent for a celebrity entertainer. Although this particular form of marketing bears some resemblance to traditional marketing, there are many differences as well—including a lot more glitz and glamour! In this course, students explore basic marketing principles and delve deeper into the multibillion-dollar sports and entertainment marketing industry. Students learn how professional athletes, sports teams, and well-known entertainers are marketed as commodities, and how some of them become billionaires as a result. They also get a glimpse how things work behind the scenes of major sporting events like the Super Bowl, and how they can play a role in such an event. Prerequisites: None

## **Web Design—FuelEd**

This one-semester course introduces students to the mechanics and elements of web design and HTML, and the concepts of planning and organizing websites. Students engage in a variety of project-based assessments to evaluate their understanding and progress. After completing the course, students are able to understand the planning and organization of a website, the elements of design and HTML. Students also learn how to use a WYSIWIG editor and other online tools to create a website. Prerequisites: None

## **English Language Arts**

### **Creative Writing—APEX**

Creative Writing is an English elective course that focuses on the exploration of short fiction and poetry, culminating in a written portfolio that includes one revised short story and three to five polished poems. Students draft, revise, and polish fiction and poetry through writing exercises, developing familiarity with literary terms and facility with the writing process as they study elements of creative writing. Elements of fiction writing explored in this course include attention to specific detail, observation, character development, setting, plot, and point of view. In the poetry units, students learn about the use of sensory details and imagery, figurative language, and sound devices including rhyme, rhythm and alliteration. They also explore poetic forms ranging from found poems and slam poetry to traditional sonnets and villanelles. In addition to applying literary craft elements in guided creative writing exercises, students engage in critical reading activities designed to emphasize the writing craft of a diverse group of authors. Students study short stories by authors such as Bharati Mukherjee and Edgar Allan Poe, learning how to create believable characters and develop setting and plot. Likewise, students read poetry by canonical greats such as W. B. Yeats and Emily Dickinson as well as contemporary writers such as Pablo Neruda, Sherman Alexie, and Alice Notley. Studying the writing technique of a range of authors provides students with models and inspiration as they develop their own voices and refine their understanding of the literary craft. By taking a Creative Writing course, students find new approaches to reading and writing that can affect them on a personal level, as the skills they gain in each lesson directly benefit their own creative goals. Students who are already actively engaged writers and readers learn additional tools and insight into the craft of writing to help them further hone their skills and encourage their creative as well as academic growth. All English elective content is based on the National Council of Teachers of English (NCTE) standards. Course Materials: No required or optional materials.

### **English I A (Common Core)—Advanced Academics**

How can we use language to clarify our ideas and help others understand our meaning? The answer to this important question drives the content of your first high school level English course. English I A, the first of a two-semester course, is a rigorous online English course that initiates you into college preparatory work with the live support of certified and experienced English teachers. You will receive multimedia instruction in Common Core Standards-based units that develop critical thinking skills in the language arts—from vocabulary and language development to literary and media analysis—and the writing process. You will read and analyze a broad range of fiction and nonfiction, including self-selected novels and technical readings. Literature selections include Steinbeck's *The Pearl* and Homer's *The Odyssey*. The units begin with vocabulary development and end with the hero's quest. You will use this literature for analysis and also as a springboard for writing activities. You will use technology throughout the writing process for a variety of purposes, including informative, persuasive, and narrative essays. You will also have opportunities for creative writing and sharing ideas and strategies with other online students through the discussion assignments. This course requires one or more novels, which can be acquired at any public library. Pre-requisites: MS Language Arts 8 A&B

## **English I B (Common Core)—Advanced Academics**

The Greek philosopher Plato once said, “Rhetoric is the art of ruling the minds of men.” There are two reasons why you should know about rhetoric: first, because you might need to use it; second, because it is often used on you. The use of rhetoric drives the content of English I B, the second of a two semester course. English I B is a rigorous online English course that prepares you for academic work in upper-division courses and college with the live support of certified and experienced English teachers. You will receive multimedia instruction in Common Core Standards-based units that develop critical thinking skills in the language arts, such as vocabulary and language development, literary and media analysis, critical listening, and the writing process. Literature analysis units include a poetry unit and a deep study of *Romeo and Juliet*. You will also study rhetorical strategies and analyze a broad selection of speeches while practicing critical listening skills. You will conduct both short- and long-term research, with a culminating research project. Other written assignments include an argumentative speech, poetry analysis, an original poem, and your adaptation of a Shakespeare scene. You will develop your interpersonal communication skills through regular online chats with your teacher and through discussion assignments with other students. You will self-select material to read or view independently for both enjoyment and academic purposes. This course requires one or more novels, which can be acquired at any public library. Pre-requisite: English I A

## **English II A (Common Core)—Advanced Academics**

What do a teenaged princess named Antigone who lived thousands of years ago in ancient Greece and a Hispanic teenager named Esperanza who lived in 1960’s Chicago have in common? Dysfunctional families, for one thing. Reading ancient and modern literature and finding connections in them are just some of the ways English II A will help you understand and appreciate literature. English II A is the first part of a two semester course that builds upon the foundations of English I. This course will prepare you for the academic work in upper division courses and for college with the live support of certified and experienced English teachers. You will receive multimedia instruction in Common Core Standards-based units that develop critical thinking skills in language arts, such as vocabulary and language development, literature and media analysis, critical listening, and the writing process. You will read and analyze a broad selection of world literature, such as poetry, traditional stories of creation and destruction, *Antigone*, and *The House on Mango Street*, and use it as a springboard for your own writing. You will use technology through the writing process to produce papers for a variety of purposes. You will also produce real world items such as a résumé and business letter, as well as literary analyses and an argumentative essay. You will conduct a short research project and do a presentation with a speech component. You will continue to develop communication skills through regular online chats with your teacher and through discussion assignments with other students. This course requires one or more novels, which can be acquired at any public library. Pre-requisites: English I A&B

## **English II B (Common Core)—Advanced Academics**

How can reading literature help us to understand ourselves? Great literature is a mirror in which we see ourselves, as well as our society, reflected. Sometimes the mirror makes us uncomfortably aware of the shortcomings of our situation. Such is the literature that you will read in English II B. English II B, the second half of a two-semester course, is a rigorous online English course that will prepare you for the academic work in upper-division courses and for college. You will receive multimedia instruction in Common Core Standards-based units that develop critical thinking skills in the language arts, such as vocabulary and language development, literature and media analysis, critical listening, and the writing process. You will read a variety of world literature, such as *Metamorphosis* and *An Enemy of the People*, as well as self-select material to read or view independently. You will use the literature as a springboard for your own writing. You will write narrative, expository, and persuasive essays, as well as creative writing. A research unit will guide you through the research process, from narrowing a topic to selecting and citing credible sources. You will also continue to develop your interpersonal communication skills through online chats with your teacher, as well as discussion assignments with other students. This course requires one or more novels, which can be acquired at any public library. Pre-requisite: English II A

## **English III A (Common Core)—Advanced Academics**

The Russian writer Aleksandr Solzhenitsyn once said, “Literature becomes the living memory of a nation.” English III A, the first part of a two-semester course, uses American literature to explore ideas about the American Dream. This course will prepare you for college with the live support of certified and experienced English teachers. You will receive multimedia instruction in Common Core Standards-based units that explore the American experience. You will continue to develop your critical thinking skills in the language arts, such as vocabulary development, literature and media analysis, critical listening, and the writing process. You will read a wide variety of American literature, including short stories, poetry, sermons, letters, and *The Scarlet Letter*, as well as self-select material to read or view independently. You will analyze this literature and use it as a springboard for your own writing. You will use the writing process throughout the course to produce papers for a variety of purposes, such as persuasive, expository, and narrative essays, as well as creative papers and projects. You will continue to practice interpersonal communication skills through online chats with your teacher, as well as discussion assignments with other students. This course requires one or more novels, which can be acquired at any public library. Pre-requisites: English II A&B

## **English III B (Common Core)—Advanced Academics**

Ernest Hemingway once said, “All modern American literature comes from one book by Mark Twain called *Huckleberry Finn*.” Directly or indirectly, that book by Mark Twain has influenced all modern American writers since it first made the American scene in 1885. If you have read a story narrated by a young man who uses dialect instead of Standard English, who rebels against society instead of following its rules, or who suffers both internal and external conflicts, then you have read a story that was influenced by Twain’s great American novel. The study of *Huckleberry Finn* is a major element in English III B, the second part of a two-semester course. This rigorous online English course will prepare you for college with the live support of certified and experienced English teachers. You will gain instruction in Common Core Standards-based units that explore the American experience as you continue to develop critical thinking skills in the language arts, such as vocabulary development, literature and media analysis, critical listening, and the writing process. You will read a wide variety of American literature, including short stories, poetry, drama, as well as *The Adventures of Huckleberry Finn*. A research unit will guide you through the research process, from narrowing a topic to selecting and citing credible sources. You will continue to practice interpersonal communication skills through online chats with your teacher, as well as discussion assignments with other students. This course requires one or more novels, which can be acquired at any public library. Pre-requisite: English III A

## **English IV A (Common Core)—Advanced Academics**

What is a hero? From the epic Anglo-Saxon hero Beowulf to the beggar described by Orwell, English IV A, the first semester of a two-semester course, examines the heroic in fiction and nonfiction. English IV A is a rigorous online English course that will prepare you for college with the live support of certified and experienced English teachers. You will receive multimedia instruction in Common Core Standards-based units that explore the British literary tradition as you continue to develop critical thinking skills in the language arts, such as vocabulary development, literature and media analysis, critical listening, and the writing process. You will read and respond to a variety of British and world literature—with emphasis on the foundations of British Literature such as *Beowulf* and *The Canterbury Tales*— as well as self-select material to read or view independently. You will also study *Utopia* and *King Lear*. Your literature analysis will serve as a springboard for your own writing. You will use technology throughout the writing process to produce papers for a variety of purposes, such as narrative, argumentative, and analytical essays. You will produce a multimedia project analyzing the themes and motifs of *King Lear* and produce a satirical newspaper. You will continue to hone your interpersonal communication skills through online chats with your teachers, as well as discussion assignments with other students. This course requires one or more novels, which can be acquired at any public library. Pre-requisites: English III A&B

## **English IV B (Common Core)—Advanced Academics**

The struggle for rights and the determination of our own future has been an eternal struggle of humanity. In this final semester of high school English, you will explore this theme in several ways. English IV B, the second part of a two-semester course, will prepare you for college with the live support of certified and experienced English teachers. You will receive multimedia instruction in Common Core Standards-based units that explore the British literary tradition as you continue to develop critical thinking skills in the language arts, such as vocabulary development, literature and media analysis, critical listening, and the writing process. You will read and respond to a variety of British and world literature, including an in-depth study of *Macbeth*. You will choose from five novels for further research and analysis in a major research paper, as well as self-select material to read or view independently. Your analysis of literature will serve as a springboard for your own writing. You will use technology throughout the writing process to produce papers for a variety of purposes, such as narrative, argumentative, and analytical essays and creative writing. You will research the history of women's rights and produce a multimedia presentation with cited sources of information. You will continue to hone interpersonal communication skills through online chats with your teachers, as well as discussion assignments with other students. This course requires one or more novels, which can be acquired at any public library.

Pre-requisite: English IV A

## **Fundamentals of English Composition—Advanced Academics**

We've all been there. An empty page in front of us, the deadline for our three-page essay looming. Writing can be hard, but it's an essential skill for life—even after you've finished school. As a beginning writer, you will gain the tools you need to write effectively for school and life in *Fundamentals of English Composition*. In this one-semester course, you will explore not only how to write, but why. All writing serves a purpose. This course defines the characteristics of effective writing, identifies different purposes for writing, and teaches you strategies for achieving those purposes. The course also provides in-depth instruction on the writing process, focusing on prewriting and revision. In the last part of the course, you will evaluate your own work by looking at it through the eyes of a reader. When you finish the course, you will have written an analytical essay, a persuasive cover letter, and a personal narrative; you will also have been exposed to peer review practices and guidelines for accepting and offering constructive criticism.

## **Introduction to Gothic Literature—Advanced Academics**

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

## **Introduction to Grammar and Composition—Advanced Academics**

Before you can learn to write, you have to master the art of composing sentences and using the correct words. If you struggle with language and grammatical rules get in the way of your ability to write, *Introduction to Grammar and Composition* will be a great course for you. This one-semester course focuses on using words and sentences correctly while keeping the goal of your writing in mind. This course shows you how words, sentences, paragraphs, and essays help writers express their thoughts. You will be given tools to understand and apply language and writing skills from the ground up. You will learn about the writing process and practice your skills through a variety of writing exercises. The goal of this course is to give you the confidence and skills you need to write a polished essay.



## **Introduction to Mythology and Folklore—Advanced Academics**

Caught between a rock and a hard place, a Herculean effort, an Achilles heel. These phrases show that our language still echoes the stories from mythology and folklore. Since the first people gathered around fires, humans have told stories to entertain, instruct, and make sense of the world. Mythology and Folklore, a one-semester elective course, provides an overview of ancient mythology and various kinds of folklore. This course takes you on a journey with ancient heroes as they slay dragons and outwit gods. You will follow fearless warrior women into battle and watch as clever monsters conquer enemies stronger than themselves. You will explore the universality and social significance of myths and folklore and see how these ideas are still used to shape society today.

## **Journalism A—Advanced Academics**

In 2008, research conducted for the Newspaper Association of America found that student journalists earn better high school grades, perform at higher levels on college entrance exams, and receive higher grades in college writing and grammar courses than students who lack that experience. Journalism A is the first semester of a two-semester introduction to journalism. As a student journalist, you will ask probing questions, write in a clear and engaging style, and meet deadlines—all of which are important skills not only for journalists, but also for high school and college students. You will appreciate the history of journalism in the United States and realize its importance to an engaged and informed citizenship. You will differentiate among the different kinds of stories in a newspaper, magazine, or online publication and gain experience in creating stories of your own.

## **Journalism B—Advanced Academics**

Does anyone even read print newspapers anymore? In today's world, people are more and more turning to mass media outlets such as cable television news programs, online newspapers, and blogs for their information updates. Journalism B, the second course in a two-semester series, concentrates on non-traditional media after a short overview of newspapers and magazines. When you take Journalism B, you will consider the changing role of journalism and gain skills in conducting traditional jobs of journalists in more non-traditional ways.

For example, you will conduct email interviews. You will write a blog. You will create an “advertorial,” a hybrid of an ad and an editorial. Because the role of journalists in today's society is a more complicated one than in the past, you will focus on ethical issues such as accuracy and objectivity. Taking Journalism

B will help you practice and hone your observation and writing skills that are applicable to all your other subjects, as well as research and report on subjects that interest you. Basic writing skills such as paragraph development and good mechanics area pre-requisite. Pre-requisite: Journalism A

## **Media Literacy—APEX**

Media Literacy teaches students how to build the critical thinking, writing, and reading skills required in a media-rich and increasingly techno-centric world. In a world saturated with media messages, digital environments, and social networking, concepts of literacy must expand to include all forms of media. Today's students need to be able to read, comprehend, analyze, and respond to non-traditional media with the same skill level they engage with traditional print sources.

A major topic in Media Literacy is non-traditional media reading skills, including how to approach, analyze, and respond to advertisements, blogs, websites, social media, news media, and wikis. Students also engage in a variety of writing activities in non-traditional media genres, such as blogging and podcast scripting.

Students consider their own positions as consumers of media and explore ways to use non-traditional media to become more active and thoughtful citizens. Students learn how to ask critical questions about the intended audience and underlying purpose of media messages, and study factors which can contribute to bias and affect credibility.

The course content is based on The National Association for Media Literacy Education's Core Principles of Media Literacy Education, as well as aggregate state standards and research into best pedagogical practices. Course Materials: No required or optional materials.

## **Public Speaking—FuelEd**

Students are introduced to public speaking as an important component of their academic, work, and social lives. They study public speaking occasions and develop skills as fair and critical listeners, or consumers, of spoken information and persuasion. Students study types of speeches (informative, persuasive, dramatic, and special occasion), read and listen to models of speeches, and prepare and present their own speeches to diverse audiences. Students learn to choose speaking topics and adapt them for specific audiences, to research and support their ideas, and to benefit from listener feedback. They study how to incorporate well-designed visual and multimedia aids in presentations and how to maintain a credible presence in the digital world. Students also learn about the ethics of public speaking and about techniques for managing communication anxiety. Prerequisites: None

## **Speech and Debate—Advanced Academics**

In this course, the student will learn how to apply visuals, style, stories, organization, and nonverbal communication to speeches. The student will learn tactics to help overcome fear, participate in debates, and rehearse effectively. The student will also learn how to evaluate great speeches from history as well as more modern media messages. This Speech and Debate course was developed by Connections Academy with content and video excerpts provided by TJ Walker, Media Training Worldwide. Connections Academy's use of all content, including any video excerpts, is for educational purposes only, and specifically, for purposes of review, criticism, illustration or comment. All images, names, logos, and depictions belong to their respective parties.

## **Writing Skills and Strategies--APEX**

Writing Skills and Strategies develops key language arts skills necessary for high school graduation and success on high stakes exams through a semester of interactive instruction and guided practice in composition fundamentals. The course is divided into ten mini-units of study. The first two are designed to build early success and confidence, orienting students to the writing process and to sentence and paragraph essentials through a series of low-stress, high-interest hook activities. In subsequent units, students review, practice, compose and submit one piece of writing. Four key learning strands are integrated throughout: composition practice, grammar skill building, diction and style awareness, and media and technology exploration. Guided studies emphasize the structure of essential forms of writing encountered in school, in life, and in the work place. Practice in these forms is scaffolded to accommodate learners at different skill levels.

The content is based on the National Council of Teachers of English (NCTE) standards and aligned to state standards.

## **Fine Arts**

### **3D Art I: Modeling—FuelEd**

This course introduces students to 3D modeling tools and concepts. Using Blender, the popular open-source 3D modeling package, students learn the basics of creating shapes, adding textures and lighting, and rendering. By the end of the course, students produce a series of increasingly sophisticated projects for their 3D portfolio. This course is suitable for students with no prior experience in 3D game design or digital media authoring tools. Prerequisites: None

### **3D Art II: Animation—FuelEd**

In this advanced course, students build on the skills they developed in 3D Art I to learn 3D animation techniques. Using Blender, a powerful open-source modeling tool, students master the basics of animation—rigging, bones, and movement—while learning how to apply traditional animation techniques to their 3D models. Prerequisites: None

## **Art is World Culture (provided by eDynamic)—FuelEd**

Students will learn about some of the greatest artists while also creating art of their own, including digital art. The course explores the basic principles and elements of art, how to critique art, and how to examine some of the traditional art of the Americas, Africa, and Oceania in addition to the development of Western art. Prerequisites: None

## **Digital Arts I—FuelEd**

In this exploratory course, students learn the elements and principles of design as well as foundational concepts of visual communication. While surveying a variety of media and art, students use image editing, animation, and digital drawing to put into practice the art principles they've learned. They explore career opportunities in the design, production, display, and presentation of digital artwork. They respond to the artwork of others, and learn how to combine artistic elements to create finished pieces that effectively communicate their ideas. Prerequisites: None

## **Digital Arts II—FuelEd**

Students build on the skills and concepts they learned in Digital Arts I as they develop their vocabulary of digital design elements. By the end of the course, they will have created a collection of digital art projects for their digital design portfolio. Course Length: One semester Prerequisites: Digital Arts I (or equivalent)

## **Digital Photography—FuelEd**

This course focuses on the basics of photography, including building an understanding of aperture, shutter speed, lighting, and composition. Students are introduced to the history of photography and basic camera functions. They use the basic techniques of composition and camera functions to build a portfolio of images, capturing people, landscapes, close-ups, and action photographs. Prerequisites: None

## **Fundamentals of Art—Advanced Academics**

What words can you use to describe the parts that make up great art? What terms do artists apply to their creations in order to achieve intended results? Fundamentals of Art, an entry-level, one-semester course, introduces you to the theory and practice of art. You will begin your study with intensive vocabulary application of the terms of art to help you critically and insightfully discuss—and eventually write about—art. This course discusses and demonstrates the elements (line, color, shape/form, space, value, and texture) and principles of art (balance, harmony, unity, emphasis, repetition, rhythm, contrast, and composition) through the incorporation of famous works of art, as well as with the use of interactive graphics and activities. You will study classic representations of art that demonstrate particular elements and principles, such as paintings by Pissarro, da Vinci, Cimabue, Manet, Van Gogh, Gauguin, Renoir, and Monet. This course focuses on teaching you to analyze works of art rather than create art. Before enrolling in this course, you should have basic skills in analysis and writing about subjects using evidence to support your ideas.

## **Fundamentals of Art Appreciation—Advanced Academics**

Fine art doesn't just include paintings. Did you know that graphic art, crafts, and architecture all fall under this category, too? Fundamentals of Art Appreciation is an introductory, one semester course that explores various aspects of art to encourage you to develop an awareness of, and admiration for, fine art. This course focuses on teaching you to analyze works of art rather than create art. As you begin to examine the elements and principles of art in this course, you will study important works of art selected from various types of media, including painting, sculpture, architecture, printmaking, and photography. The course also explores crafts and graphic design and computer art. You will learn about various types of art media and techniques as you investigate the question of why art is created. This course provides you with a working knowledge of concepts and an enriched vocabulary so that you can become a more informed consumer of art.

## **Fundamentals of Art History—Advanced Academics**

Moments in time and place work to inspire our most treasured works of art. Can you imagine if Goya lived during the violence and revolution of 19th century Spain? How would Daguerre have expressed himself artistically if he had not invented photography? Each artist expresses his unique moment and place in history. Fundamentals of Art History is an introductory, one-semester course designed to develop your understanding and appreciation for the visual arts. This course focuses on teaching you to analyze works of art rather than create art. In this course, you will explore the arts, artists, and their cultures from prehistoric times through the present. You will begin to explore important works of art selected from various types of media, including painting, sculpture, architecture, and photography. As the course presents works of different periods, you will receive the historical and geographic context necessary for gaining a deeper appreciation of the pieces. This course provides you with a working knowledge of concepts and an enriched vocabulary so that you can become a more informed consumer of art.

## **Guitar 1—Florida Virtual**

Pre-Requisites: None

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments / 32-36 weeks

Description: Whether a student loves music, wants to play guitar for family and friends, or desires to be a music star, this course is a great place to start. No prior music experience is needed. Students learn the fundamentals of music and the basic skills necessary to play a wide variety of music styles. Student guides, Carlos and Ariel, guide students through each step of this journey toward becoming skilled guitarists and musicians. Each student needs a playable six-string guitar and a device that is capable of recording a video, including audio, to submit work to the teacher via computer as an attached file. The advice of an experienced guitarist, a guitar teacher, or a local music store is a great resource if the student does not already have a guitar. A guitar is “playable” if it is the correct size for the guitarist, is easy to press the strings down against the frets, and plays in tune up and down the fret board. There are three common types of six-string guitars: classical, steel string, and electric. Most guitars are built to be played right-handed, so that the right hand would pluck the strings and the left hand would press the strings down against the frets. Many left-handed guitarists play right-handed guitars. Many guitarists and teachers recommend that left-handed students try playing on a right-handed guitar when first learning. Some guitars are built to be played left-handed. This course is taught using a right-handed guitar. Students choosing to use left-handed guitars will need to adjust accordingly. Note: This course can be used as a performing/fine arts credit to meet the art requirement for high school graduation.

## **Image Design and Editing—FuelEd**

This introductory design course is for students who want to create compelling, professional looking graphic designs and photos. Students learn the basics of composition, color, and layout through the use of hands-on projects that allow them to use their creativity while developing important foundational skills. They use GIMP software to create a graphic design portfolio with a wide variety of projects involving the mastery of technical topics, such as working with layers and masks, adding special effects, and effectively using typefaces to create visual impact. The projects help students develop the skills they need to create and edit images of their own. Prerequisites: None

## **Introduction to Graphic Design A—Advanced Academics**

Designed to develop your understanding and appreciation for design, the Introduction to Graphic Design A course teaches you to interpret visual representations and to communicate your own ideas and information graphically. By raising your awareness of design, this intermediate-level course establishes a strong foundation in the basic principles of graphic design. This course, the first in a two-semester series, introduces you to scenarios that can be solved by applying creative techniques that yield innovative and effective design solutions. Though the course is structured around computer-assisted graphic design, you will examine other types of design as well. You will also learn to use Inkscape, an image-editing program that is provided for you, and will create several design compositions using this program.

## **Introduction to Graphic Design B—Advanced Academics**

In Introduction to Graphic Design B, the second course in a two semester series, you will be introduced to the history of design and how various design movements have contributed to the field of design. Understanding where the field of design comes from will help you to appreciate the aesthetics and purposes for design today. In addition, this course expands on your foundational knowledge in the basic principles of graphic design. You will learn to communicate visually through effective layout and interface design. You will also be introduced to appropriate techniques for the evaluation of art and design. Though the course is structured around computer-assisted graphic design, you will examine other types of design as well. You will learn to use Inkscape, an image-editing program that is provided for you, and will create several design compositions using this program.

## **Music Appreciation—APEX**

Music Appreciation is a streamlined course that introduces student to the history, theory, and genres of music, from the most primitive surviving examples, through the classical to the most contemporary in the world at large. The course is offered in a two-semester format: The first semester covers primitive musical forms, classical music, and American jazz. The second semester presents the rich modern traditions, including: gospel, folk, soul, blues, Latin rhythms, rock and roll, and hip-hop. The course explores the interface of music and social movements and examines how the emergent global society and the Internet is bringing musical forms together in new ways from all around the world.

## **Foreign Language**

### **Chinese 1—Florida Virtual**

Pre-Requisites:

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments/32-36 weeks

Description: Students join various native speakers of Mandarin Chinese as they give a lively introduction to the language and its rich culture. Set in their everyday environment, the native speakers take students through different daily scenarios and give them the necessary skills to read, write, and speak Chinese. In this course, students learn the basic Chinese language. At the very beginning, the course starts by introducing students to a general knowledge of Pinyin, Mandarin Chinese, Chinese dialects, and Chinese characters. After one semester, students will be able to engage in conversation in Chinese including greeting people, introducing themselves to others, and exchanging basic information with others. Students learn to count from 1 to 1000 and make simple sentences in both spoken and written Chinese. They also learn 160 "magical" Chinese characters and use them on a variety of topics. As students walk through the units step by step, they get to know not only the language itself, but also the culture in which the language takes place and keeps developing.

### **Chinese 2—Florida Virtual**

Pre-Requisites: Chinese I

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments/32-36 weeks

Description: Chinese II enables students to further develop the communicative skills of listening, speaking, reading, and writing Mandarin Chinese at a more advanced level. The course immerses students in Chinese culture as virtual exchange students in China. Virtual excursions from one Chinese city to another expand the students' vocabulary, helping them learn to interact with others and use appropriate terms to communicate in various everyday situations.

## **Chinese 3—Florida Virtual**

Pre-Requisites: Chinese I & II Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments/32-36 weeks

Description: In Chinese III, students continue to expand their abilities in various aspects of Chinese Mandarin. Students continue to build their knowledge of vocabulary, sentence patterns, and grammar points in communicative contexts. They also enhance their Chinese Mandarin listening and speaking skills, such as pronunciation and intonation. Students learn more in-depth Chinese reading and writing strategies and skills. The Chinese III course greatly improves students' reading abilities, and students are able to write in Chinese in various formats such as journal, letter, invitation, and essay. The course also enriches and fortifies the students' knowledge and skills in writing simplified Chinese characters. In this course, students learn more essential knowledge of Chinese culture, including the origins, histories, anecdotes, and etiquettes for various cultural settings, events, and occasions. Students also learn to compare and contrast the Chinese culture with their own cultures in many different aspects. Students who complete Chinese III earn Honors credit.

## **French I—APEX**

French I teaches students to greet people, describe family and friends, talk about hobbies, and communicate about other topics, such as sports, travel, and medicine. Each lesson presents vocabulary, grammar, and culture in context, followed by explanations and exercises. Vocabulary includes terms to describe school subjects, parts of the body, and people, as well as idiomatic phrases. Instruction in language structure and grammar includes the verb system, adjective agreement, formal and informal address, reflexive verbs, and past tense. Students also gain an understanding of the cultures of French-speaking countries and regions within and outside Europe, as well as insight into Francophone culture and people. The material in this course is presented at a moderate pace. Based on (ACTFL) standards.

## **French II—APEX**

French II teaches students to communicate more confidently about themselves, as well as about topics beyond their own lives - both in formal and informal address. Each lesson presents vocabulary, grammar, and culture in context, followed by explanations and exercises. Vocabulary includes terms in cooking, geography, and architecture. Instruction in language structure and grammar includes present- and past-tense verb forms and uses, negation, and direct and indirect objects. Students deepen their knowledge of French-speaking regions and cultures by learning about history, literature, culture, and contemporary issues. The material in this course is presented at a moderate pace. The content is based on the American Council on the Teaching of Foreign Languages (ACTFL) standards.

## **French III—FuelEd**

This course builds on knowledge that students acquired in the beginning-level courses, French I and II, and aligns with national ACTFL standards. Students learn to express themselves using present, past, future, and conditional tense verbs in increasingly complex grammatical constructions. They become familiar with idiomatic expressions common to daily French speaking and build vocabulary in order to be able to converse on a wider variety of themes in French. Instruction includes more material on French culture, geography, and history than in earlier courses, giving students the opportunity to learn about France and other francophone countries around the world. Prerequisites: French I & II

## **French IV—FuelEd**

Students complete their high school French language education with this two-semester course that, like all of its predecessors, conforms to the national standards of the ACTFL. The instructional material in French IV enables students to use the conditional and subjunctive tenses, and talk about the past with increasing ease, distinguishing which tense to use and when. It also helps students hone their listening skills to enhance their understanding of native speech patterns on familiar topics. Students expand their knowledge of French-speaking countries' culture, history, and geography and learn about francophone contributions in the arts. Prerequisites: French I, II & III

## **German I—APEX**

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

## **German II—APEX**

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

## **German III—FuelEd**

This course expands the scope of concepts and information that students mastered in the German I and II courses and aligns with national ACTFL standards. Students learn increasingly complex grammatical constructions such as present, imperfect, perfect, and future tenses; reflexive and modal verbs; prepositions; conjunctions; relative pronouns; and adjective endings. Unit themes in this two-semester course include vacations, travel, leisure time, healthy living, body parts and ailments, family members, rights and responsibilities, household chores, university study, military service, personal relationships, the importance of appearance, emotions, fairy tales, and animals. Unit activities blend different forms of communication and culture. Prerequisites: German I & II

## **German IV—FuelEd**

German IV builds on the foundation of the first three courses. Students continue to sharpen their speaking, listening, reading, and writing skills while also learning to express themselves on topics relevant to German culture. Authentic texts, current culture, and literature from Germany, Austria, and Switzerland all form part of the instructional material for this course. Each unit focuses on a particular region or city and includes such themes as culture, tourism, and current events. These units cover topics such as contemporary and classical music, expressing opinion, German history, transportation, family weekend travel, shopping, free-time activities, technology, multiculturalism, education, and careers.

Prerequisites: German I, II & III

## **Japanese I—FuelEd**

Students become familiar with the fundamental concepts and constructions of the Japanese language as well as the rich and ancient world of Japanese culture in this two-semester course. Japanese I has been designed to meet ACTFL standards. Unit topics consist of the alphabet and numbers; greetings; introductions; the calendar (days, months, and seasons); weather; time; colors; familiar objects and places; family; food; pastimes; and school objects and routine. Course strategies include warm-up activities, vocabulary study, reading, threaded discussions, multimedia presentations, self-checks, practice activities and games, oral and written assignments, projects, quizzes, and exams. Prerequisites: None

## **Japanese II—FuelEd**

In Japanese II, course content blends different forms of communication and culture via unit activities to ensure that students meet all ACTFL standards. These standards call for a focus on successful oral and written communication as well as a thorough grounding in Japanese culture. Unit themes for both semesters cover a broad range of useful everyday subjects, including daily routine, animals, entertainment, body parts, rooms and furniture, shopping and clothing, meals, sports and recreation, and transportation. Students must successfully complete Japanese I in order to enroll in this course. Prerequisites: Japanese I

## **Latin 1—Florida Virtual**

Pre-Requisites: None

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments/32-36 weeks

Description: There is a reason “all roads lead to Rome.” Maybe it is because Romans built much of the ancient world’s highway system. Maybe it is also because the Roman culture and Latin language laid the foundation for much of Western culture. In this course, students find out for themselves as they take their first steps on a lifelong journey of discovery. Students improve their command of the English language by studying Latin. Students also gain a better understanding of today’s laws and culture by getting into the Roman mind. Latin I is the most comprehensive way to begin. The purpose of this course is to give students a foundation in Latin grammar and vocabulary. This course also acquaints students with Olympic gods and with the everyday life of the typical Roman. The course sets the students’ feet on a journey as big as their imagination, with a passport to some of the world’s most exciting places.

## **Latin 2—Florida Virtual**

Pre-Requisites: Latin I

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments/32-36 weeks

Description: History-changing battles, great poets and statesmen, classic art and architecture, and a language that was heard throughout most of the known world. In Latin I, students read the opening credits of this epic movie. In Latin II, the plots and the characters that populated ancient Rome come alive. In this course, students build on their knowledge of Latin grammar and vocabulary. In the process, they sense the beauty of the language and the passion of those who spoke it. A clear, expressive, and flexible language—a language in which students can communicate—supports Roman engineering, art, commerce, and system of laws. This course gives students a solid grounding in the structure of the language. It also gives them a clear lens for looking into the heart and majesty of the Roman spirit.

## **Latin 3—FLVS**

Pre-Requisites: Latin I & II

Credits: 0.5 (per segment)

Estimated Completion Time: 2 segments/32-36 weeks

Description: In Latin III, students take their knowledge and appreciation of Latin to the next level. Students read some of the best Latin prose and poetry ever written or spoken. Caesar tells how he conquered the three parts of Gaul. Cicero reminds



Romans of the virtues that made their country great. Catullus shows how he could express the deepest human emotions in just a few, well-chosen words. In Latin III, students visit the library of great authors. The library card gives them access to the timeless words of the greatest Roman poets, storytellers, and orators. Students' skills with the Latin language give them direct access to the beauty and power of these great authors' thoughts. The purpose of this course is to strengthen students' Latin vocabulary as well as their appreciation for well-crafted writing. Students go directly to the source and recognize why Latin and those who spoke it are still relevant today. Students who complete Latin III earn Honors credit.

## **Spanish I—APEX**

Spanish I teaches students to greet people, describe family and friends, talk about hobbies, and communicate about other topics, such as home life, occupations, travel, and medicine. Each lesson presents vocabulary, grammar, and culture in context, followed by explanations and exercises. Vocabulary includes terms to describe school subjects, parts of the body, and people, as well as idiomatic phrases. Instruction in language structure and grammar includes the structures and uses of present-tense verb forms, imperatives, adjective agreement, impersonal constructions, formal and informal address, and reflexive verbs. Students explore words used in different Spanish-speaking regions and learn about the cultures of Spanish-speaking countries and regions within and outside Europe. The material in this course is presented at a moderate pace. The content is based on the American Council on the Teaching of Foreign Languages (ACTFL) standard

## **Spanish II—APEX**

Building on Spanish I concepts, Spanish II students learn to communicate more confidently about themselves, as well as about topics beyond their own lives - both in formal and informal situations. Each lesson presents vocabulary, grammar, and culture in context, followed by explanations and exercises. Students expand their vocabulary in topics such as cooking, ecology, geography, and architecture. Instruction in language structure and grammar includes a review of present-tense verb forms, an introduction to the past tense, the conditional mood, imperatives, impersonal constructions, and reported speech. Students deepen their knowledge of Spanish-speaking regions and cultures by learning about history, literature, culture, and contemporary issues. The material in this course is presented at a moderate pace. The content is based on the American Council on the Teaching of Foreign Languages (ACTFL) standards.

## **Spanish III—APEX**

In Spanish III, students build upon the skills and knowledge they acquired in Spanish I and II. The course presents new vocabulary and grammatical concepts in context while providing students with ample opportunities to review and expand upon the material they have learned previously. Students read and listen to authentic materials from newspapers, magazines, and television. The content is focused on contemporary and relevant topics such as urbanization and population growth in Latin American countries, global health concerns, jobs of the future, and scientific advancements. The materials engage students as they improve their command of Spanish. Students review the formation and use of regular and irregular verbs in the present and future tenses, as well as the use of reflexive particles and infinitives. They also expand their understanding of noun and adjective agreement, the comparative and superlative degree of adjectives, and the placement and use of direct and indirect objects and pronouns. Students expand their vocabulary through exposure to word roots and families, popular slang, the correct use of words that are often confused for one another, and review of concepts such as proper placement of accents and stress. Presentation of new materials is always followed by several interactive, online exercises, allowing students to master the material as they learn it. Teacher-scored activities provide students with opportunities to use their new Spanish skills both orally and in writing. Discussion activities allow students to interact with their peers in the target language. The content is based on the American Council on the Teaching of Foreign Languages (ACTFL) standards.

## **Spanish IV—FuelEd**

Fourth-year Spanish expands on the foundation of Spanish grammar and vocabulary that students acquired in the first three courses. As with all the earlier offerings, this culminating level Spanish language course conforms to ACTFL standards. Students continue to sharpen their speaking, listening, reading, and writing skills while also learning to express themselves on topics relevant to Spanish culture. The two-semester course is divided into ten units whose themes include people, achievements, wishes and desires, activities, celebrations, possibilities, the past, the arts, current events, and wrap up and review. Prerequisites: Spanish I, II & III

## **Health & Physical Education**

### **Nutrition and Wellness—FuelEd**

This one-semester elective course provides students with an overview of good nutrition principles that are necessary for physical and mental wellness and a long, healthy life. Instructional materials include discussions of digestion, basic nutrients, weight management, sports and fitness, and life-span nutrition. The Nutrition and Wellness course emphasizes an understanding of today's food and eating trends and gives students the capacity to intelligently evaluate all available sources of nutrition information and make informed decisions. The course is organized in six units: Course Introduction; Wellness and Food Choices in Today's World; Digestion and Major Nutrients; Body Size and Weight Management; Physical Fitness, Sports Nutrition, and Stress; and Life Cycle Nutrition. Prerequisites: None

### **Personal Health and Safety with Sex Education—Advanced Academics**

Being healthy is not just about eating right and exercising— although those are important to your health, too. Your health includes your physical well-being as well as your mental and social welfare. Personal Health and Safety is an introductory, one-semester course that examines three aspects of health— mental, physical, and social—in order to help you live a healthy, informed, and balanced life. Mental health topics include self-esteem, stress reduction, and depression. The course covers the social health topics of conflict management and communication skills. You will be equipped with ways to resist peer pressure when faced with unhealthy and destructive behaviors, including smoking, drinking alcohol, and drug abuse. The course also reviews the physical aspects health: wellness, exercise, first aid, and healthy habits. In addition, this course conveys the risks of sexual activity, including unplanned pregnancy and sexually transmitted diseases. It also presents options for eliminating these risks. As part of this discussion, the course includes an overview of infectious and noninfectious diseases, how they affect the body, and how they can be prevented.

### **Physical Education I A—Advanced Academics**

We all know that exercise makes you feel better. It gives you more energy and makes you stronger. However, exercise benefits more than just the body. It improves your self-esteem and helps you manage stress. It releases endorphins, which create a feeling of happiness and euphoria. Physical Education I

A is a one-semester course that introduces topics to help you understand the importance and meaning of true physical fitness. You will learn how to apply different approaches to help you achieve a healthy weight and keep your bones and muscles strong. At the beginning of the course, your lessons will focus on providing you with the tools and knowledge you need to design, maintain, and build a fitness routine. To support your fitness routine and safety, you will learn about the proper exercise techniques for aerobic conditioning, strength training, and flexibility. The course fitness tests and logs will help determine your baseline fitness level and track your progress as you improve in all areas of physical fitness. Toward the end of the course, you will receive an overview of several different types of fitness careers, learn how to locate fitness resources in your community, and discover the social, mental, and physical benefits of exercise. Most of your grade will come from assignments and logs that track your exercise activity, but you will also complete unit tests and a final exam. This course requires a minimum enrollment term of 16 weeks.

## **Physical Education I B—Advanced Academics**

What does it mean to be physically fit? Generally, people think about going to the gym or attending a workout class, but being fit also includes eating nutritional foods, maintaining a healthy weight, and keeping your bones and muscles strong. Physical Education I B is a one-semester course that helps you understand your baseline fitness level, track your progress as you improve your physical fitness, and recognize the tools and knowledge that you will need to design, maintain, and build your own fitness routine. You will complete a series of activity logs and learn about how to prevent injuries while you perform the exercises. This course presents information about cycling, gymnastics, and track and field to provide you with different exercise options. In addition to completing fitness logs, you will learn about the importance of nutrition by evaluating your current eating habits, planning healthy meals, and keeping nutritional logs. Most of your grade will consist of fitness tests and logs, but you will also complete unit tests and a final exam. These activities are designed to teach you how to value physical fitness and health throughout your life to keep you strong and healthy. This course requires a minimum enrollment term of 16 weeks.

## **Physical Education II A—Advanced Academics**

Did you know that strength training and flexibility should be included in your exercise program? To participate in a balanced exercise routine, you should perform cardio exercises such as running and aerobics, but you also need to work on your flexibility and strengthen your muscles. Many fitness experts recommend a balanced approach to exercise, which includes cardio, stretching, and strength training. Physical Education II A is a one-semester course that aims to provide you with the tools and knowledge you need to design, maintain, and build a balanced fitness routine. The course discusses the proper form for different types of exercise, including aerobic conditioning, strength training, and flexibility, along with general safety guidelines for working out. These topics will help you understand the importance and meaning of true physical fitness and apply different methods for achieving healthy weight, bones, and muscles. Fitness tests and logs allow you to determine your baseline fitness level and track your progress as you improve in all areas of physical fitness. Most of your grade will come from completing fitness logs, but you will also participate in chat sessions, take unit tests, and complete a final exam. This course requires a minimum enrollment term of 16 weeks.

## **Physical Education II B—Advanced Academics**

Have you ever gone snow skiing or snowboarding, or gone to the lake with your family to water ski? Winter and water activities are a fun way to be physically active outside in both winter and summer. This course introduces you to a variety of exercises to help broaden your exercise horizon. It also presents ways to benefit from team sports and how to be a valuable team player. Physical Education II B is a one-semester course that provides you with the tools and knowledge you need to design, maintain, and build on your own fitness routine. The course discusses proper form for different types of exercise, along with general safety guidelines for working out. You will learn about the importance of nutrition by evaluating personal eating habits and planning healthy meals. Most of your grade will come from fitness tests and logs, but you will also develop your own fitness plan and participate in chat sessions. All of the activities and assignments will help you understand your baseline fitness level and help you track progress as you improve in all areas of physical fitness. This course requires a minimum enrollment term of 16 weeks.

## **Physical Education III A—Advanced Academics**

Have you ever worked out one day and the next day your muscles feel sore? Feeling sore after a workout usually means that you changed the intensity or did an activity you are not used to doing during your exercise routine. One of the topics you will learn about in this course is exercise safety so you can avoid injuries before, during, and after your workout. Physical Education III A is a one-semester course that provides you with the tools and knowledge you need to design, maintain, and build a fitness routine. The course discusses the proper form for different types of exercise, including aerobic conditioning, strength training, and flexibility. It also provides instructions for goal setting and time management. You will also learn about how exercise helps your mental and physical well-being. The course topics will help you understand the importance and meaning of true physical fitness and apply different methods for achieving healthy weight, bones, and

muscles. Fitness tests and logs allow you to determine your baseline fitness level and track your progress as you improve in all areas of physical fitness. Most of your grade will come from completing fitness logs, but you will also take unit tests and complete a final exam. This course requires a minimum enrollment term of 16 weeks.

## **Physical Education III B—Advanced Academics**

Do you know what it means to be a team player? Have you encountered stressful situations playing team sports where you wished you knew how to handle the situation? This course focuses on fitness and nutritional concepts and introduces you to different coaching styles and presents information about reasonable and unreasonable expectations in team relationships. Physical Education III B is a one-semester course that provides students with the tools and knowledge they need to design, maintain, and build on their own fitness routine. In addition to creating an individualized fitness plan, you will be introduced to techniques for losing, gaining, and maintaining a healthy weight. Lessons introducing stretching techniques and balancing exercises will help you create a balanced fitness plan that includes more than just playing sports or visiting the gym. The course discusses proper form for different types of exercise, along with general safety guidelines for working out. You will learn about the importance of nutrition by evaluating your eating habits, planning healthy meals, and completing nutritional logs. Fitness tests and logs allow you to understand your baseline fitness level and track progress as you improve in all areas of physical fitness. Most of your grade will come from assignments, activities, and completing fitness logs, but you will also write a paper about the benefits of nutrition as it relates to performance. This course requires a minimum enrollment term of 16 weeks.

## **Running—Advanced Academics**

You already know that running is a great way to stay in shape, but did you also know that it helps your body in other ways? Running can increase your confidence level, boost your immune system, relieve stress, and lower your risk for disease. This one semester course is suitable for beginning, intermediate, and advanced runners and offers a variety of training schedules for each. At the beginning of the course, you will learn about setting goals, staying motivated, different levels of training, and the mechanics of running. Later in the course, you will study safety and injury prevention. Since running is often an outside activity, you will learn about choosing appropriate attire and explore guidelines for running in different weather conditions. In addition to reviewing the fundamental principles of fitness, you will also learn how to stay healthy by viewing guidelines for good nutrition, hydration, and how to engage in an effective cross-training program. While this course focuses mainly on running for fun and fitness, it also briefly explores the realm of competitive racing. Throughout this course, you will participate in a weekly fitness program that involves running. You will also be expected to record your weekly activities and heart rate. Coupled with a minimum requirement of physical activity, which includes cardio, strength training, and flexibility, the course provides opportunities for you to complete written assignments, journal entries, and team huddle discussions. This course provides activities to cover a minimum of 120 days.

## **Math**

### **Algebra I Common Core—APEX**

Algebra I builds students' command of linear, quadratic, and exponential relationships. Students learn through discovery and application, developing the skills they need to break down complex challenges and demonstrate their knowledge in new situations. Course topics include problem-solving with basic equations and formulas; measurement; an introduction to functions and problem solving; linear equations and systems of linear equations; exponents and exponential functions; sequences and functions; descriptive statistics; polynomials and factoring; quadratic equations and functions; and function transformations and inverses. This course supports all students as they develop computational fluency, deepen conceptual understanding, and apply Common Core's eight mathematical practice skills. Students begin each lesson by discovering new concepts through guided instruction, and then confirm their understanding in an interactive, feedback-rich environment. Modeling activities equip students with tools for analyzing a variety of real-world scenarios and mathematical ideas. Journaling activities allow students to reason abstractly and quantitatively, construct arguments, critique reasoning, and

communicate precisely. Performance tasks prepare students to synthesize their knowledge in novel, real-world scenarios and require that they make sense of multifaceted problems and persevere in solving them. Throughout the course students are evaluated through a diversity of assessments specifically designed to prepare them for the content, form, and depth of the Common Core assessments. This course is aligned with the Common Core State Standards for Mathematics.

## **Algebra II Common Core—APEX**

Algebra II introduces students to advanced functions, with a focus on developing a strong conceptual grasp of the expressions that define them. Course topics include quadratic equations; polynomial functions; rational expressions and equations; radical expressions and equations; exponential and logarithmic functions; trigonometric identities and functions; modeling with functions; probability and inferential statistics; probability distributions; and sample distributions and confidence intervals. This course supports all students as they develop computational fluency, deepen conceptual understanding, and apply Common Core's eight mathematical practice skills. Students begin each lesson by discovering new concepts through guided instruction, and then confirm their understanding in an interactive, feedback-rich environment. Modeling activities equip students with tools for analyzing a variety of real-world scenarios and mathematical ideas. Journaling activities allow students to reason abstractly and quantitatively, construct arguments, critique reasoning, and communicate precisely. Performance tasks prepare students to synthesize their knowledge in novel, real-world scenarios and require that they make sense of multifaceted problems and persevere in solving them. Throughout the course students are evaluated through a diversity of assessments specifically designed to prepare them for the content, form, and depth of the Common Core assessments. This course is aligned with the Common Core State Standards for Mathematics.

## **Calculus A—Advanced Academics**

Calculus is arguably the most important mathematical tool of our time. Our technology, economy, medicine, and military, to name a few, have been revolutionized with the application of calculus. In Calculus A, the first course in a two-semester series, you will explore this revolutionary tool firsthand. The course begins by introducing the concept of a limit, including notation, properties, and evaluation. You will also study continuity, derivatives, basic computation rules, graph behavior and analysis, and applications of derivatives. *Pre-requisites: Algebra I A&B, Geometry A&B, Algebra II A&B, Trigonometry or Pre-Calculus*

## **Calculus B—Advanced Academics**

Engineers in the automobile industry use calculus to analyze a vehicle's stability limitations to ensure its design meets safety specifications. Financial analysts use multivariate calculus to determine a minimum monthly payment due on a credit card. Calculus affects nearly every part of our lives. In Calculus B, the second course in a two-semester series, you will examine how biologists use calculus to determine bacterial growth rates under various conditions. This course begins with a unit on antidifferentiation and progresses to definite integrals, applications of integrals, area and volume, and differential equations. *Pre-requisite: Calculus A*

## **Consumer Math A—Advanced Academics**

Math students often ask their teachers, "Why do I need to know this?" You can find the answer to that question in Consumer Math A, the first course in a two-semester series. This course, geared toward helping you become an intelligent consumer, focuses on the basic math skills you use every day. You will learn a variety of practical applications of math skills, such as creating personal and household budgets, setting financial goals, and using checking and savings accounts. Through real-life examples, you will also learn the basics of personal earnings, benefits, taxes, credit, life insurance, and other real world topics. *Pre-requisites: Algebra I A&B*

## **Consumer Math B—Advanced Academics**

You'd be surprised at how much adults use math in daily life. As a savvy consumer, you are expected to have usable math skills that allow you to bank, pay taxes, and take out loans. When you buy a car, for example, being informed about how loans work and possible hidden fees will help ensure that you get a fair deal. Consumer Math B, an extension of Consumer Math A, continues the focus on practical applications of math in real-world situations. This one-semester course covers topics such as income taxes, investment, insurance, buying a car, and buying a house. Pre-requisite: Consumer Math A

## **Financial Literacy—APEX**

Financial Literacy helps students recognize and develop vital skills that connect life and career goals with personalized strategies and milestone-based action plans. Students explore concepts and work toward a mastery of personal finance skills, deepening their understanding of key ideas and extending their knowledge through a variety of problem-solving applications. Course topics include career planning; income, taxation, and budgeting; savings accounts, checking accounts, and electronic banking; interest, investments, and stocks; cash, debit, credit, and credit scores; insurance; and consumer advice on how to buy, rent, or lease a car or house. These topics are solidly supported by writing and discussion activities. Journal activities provide opportunities for students to both apply concepts on a personal scale and analyze scenarios from a third-party perspective. Discussions help students network with one another by sharing personal strategies and goals and recognizing the diversity of life and career plans within a group. To assist students for whom language presents a barrier to learning or who are not reading at grade level, Financial Literacy includes audio resources in English. This course is aligned with state standards as they apply to Financial Literacy and adheres to the National Council of Teachers of Mathematics' (NCTM) Problem Solving, Communication, Reasoning, and Mathematical Connections Process standards.

## **Geometry Common Core—APEX**

Geometry builds upon students' command of geometric relationships and formulating mathematical arguments. Students learn through discovery and application, developing the skills they need to break down complex challenges and demonstrate their knowledge in new situations. Course topics include reasoning, proof, and the creation of sound mathematical arguments; points, lines, and angles; triangles and trigonometry; quadrilaterals and other polygons; circles; congruence, similarity, transformations, and constructions; coordinate geometry; three-dimensional solids; and applications of probability. This course supports all students as they develop computational fluency, deepen conceptual understanding, and apply Common Core's eight mathematical practice skills. Students begin each lesson by discovering new concepts through guided instruction, and then confirm their understanding in an interactive, feedback-rich environment. Modeling activities equip students with tools for analyzing a variety of real-world scenarios and mathematical ideas. Journaling activities allow students to reason abstractly and quantitatively, construct arguments, critique reasoning, and communicate precisely. Performance tasks prepare students to synthesize their knowledge in novel, real-world scenarios and require that they make sense of multifaceted problems and persevere in solving them. Throughout the course students are evaluated through a diversity of assessments specifically designed to prepare them for the content, form, and depth of the Common Core assessments. This course is aligned with the Common Core State Standards for Mathematics.

## **Introduction to Probability and Statistics (Common Core)—Advanced Academics**

What do casinos and insurance companies have in common? These businesses are able to make money only because they trust the mathematical principles of probability. For example, casinos use probability to determine how much money is rewarded for hitting a jackpot, and insurance companies use probability to determine how likely you are to wreck your car or get an illness. In Introduction to Probability and Statistics, a one-semester course, you will learn the basics of theoretical and experimental probability. The first part of this course contains units on statistics, including representing statistical data, population and measures of central tendency, collecting statistical data, and uses of statistical data. The latter part of the course focuses on probability and includes lessons on simple events, permutations and combinations, Venn diagrams, compound events, joint and conditional probabilities, and distribution models. Pre-requisites: Algebra II A&B

## **Mathematics of Personal Finance—APEX**

Mathematics of Personal Finance focuses on real-world financial literacy, personal finance, and business subjects. Students apply what they learned in Algebra I and Geometry to topics including personal income, taxes, checking and savings accounts, credit, loans and payments, car leasing and purchasing, home mortgages, stocks, insurance, and retirement planning. Students then extend their investigations using more advanced mathematics, such as systems of equations (when studying cost and profit issues) and exponential functions (when calculating interest problems). To assist students for whom language presents a barrier to learning or who are not reading at grade level, Mathematics of Personal Finance includes audio resources in both Spanish and English. This course is aligned with state standards as they apply to Mathematics of Personal Finance and adheres to the National Council of Teachers of Mathematics' (NCTM) Problem Solving, Communication, Reasoning, and Mathematical Connections Process standards. Semesters 1 and 2: Required

## **Pre-Algebra A—Advanced Academics**

Did you know that some of the world's tallest buildings have foundations that reach farther than 20 stories below ground? In fact, the taller a building is, the larger its foundation must be. Foundations are also very important in mathematics. Foundations of Pre-Algebra A, the first course in a two semester series, places an emphasis on providing a firm knowledge base for learning Algebra I. This course begins with an exploration of real numbers, variables, exponents, Order of Operations, absolute value, operations with integers, and the coordinate plane. Throughout this course, you will explore other foundational topics, including equations, inequalities, decimals, factors, measurement, fractions, ratios, proportions, and percentages. The completion of this course will prepare you for Foundations of Pre-Algebra B, the remaining component of a complete algebraic foundation.

## **Pre-Algebra B—Advanced Academics**

Can you imagine trying to create a painting on a puddle of water? How about building a house on a swamp? One reason this seems senseless is because these projects are not beginning with the correct foundations. You will be more successful to create a painting on a canvas and build a house on solid ground. Foundations of Pre-Algebra B, the second course in a two semester series, is intended to give you the proper foundation for learning Algebra I. This course begins by introducing you to writing and solving equations and inequalities, which are extremely important skills when learning Algebra I. Next, you will explore relations, functions, linear equations, graphing, basics of geometry, introductory data analysis, and probability. Upon completion of this course, you will have a strong foundation and be well prepared for Algebra I.

*Pre-requisite: Foundations of Pre-Algebra A*

## **Pre-Calculus—APEX**

Pre-Calculus is a course that combines reviews of algebra, geometry, and functions into a preparatory course for calculus. The course focuses on the mastery of critical skills and exposure to new skills necessary for success in subsequent math courses. The first semester includes linear, quadratic, exponential, logarithmic, radical, polynomial, and rational functions; systems of equations; and conic sections. The second semester covers trigonometric ratios and functions; inverse trigonometric functions; applications of trigonometry, including vectors and laws of cosine and sine; polar functions and notation; and arithmetic of complex numbers. Within each Pre-Calculus lesson, students are supplied with a post-study Checkup activity that provides them the opportunity to hone their computational skills by working through a low-stakes problem set before moving on to formal assessment. Unit-level Pre-Calculus assessments include a computer-scored test and a scaffolded, teacher-scored test. The content is based on the National Council of Teachers of Mathematics (NCTM) standards and is aligned with state standards.

# **Science**

## **Anatomy & Physiology—Florida Virtual**

Pre-Requisites: Biology 1 recommended, but not required

Credits: 1.0

Estimated Completion Time: 2 segments/32-36 weeks

Description: In this course students explore the organization of the human body and how it works. They will acquire knowledge necessary to understand what the body is doing and how they can help the body cope with many different situations. Body systems will be studied in order to understand how their structure, location, and function allow for interaction with other parts of the body.

## **Biology—APEX**

Biology focuses on the mastery of basic biological concepts and models while building scientific inquiry skills and exploring the connections between living things and their environment. The course begins with an introduction to the nature of science and biology, including the major themes of structure and function, matter and energy flow, systems, and the interconnectedness of life. Students then apply those themes to the structure and function of the cell, cellular metabolism, and biogeochemical cycles. Building on this foundation, students explore the connections and interactions between living things by studying genetics, ecosystems and natural selection, and evolution. The course ends with an applied look at human biology. Scientific inquiry skills are embedded in the direct instruction, wherein students learn to ask scientific questions, form and test hypotheses, and use logic and evidence to draw conclusions about the concepts. Lab activities reinforce critical thinking, writing, and communication skills and help students develop a deeper understanding of the nature of science. The content is based on the National Science Education Standards (NSES) and is aligned with state standards.

## **Chemistry—APEX**

Chemistry offers a curriculum that emphasizes students' understanding of fundamental chemistry concepts while helping them acquire tools to be conversant in a society highly influenced by science and technology. The course provides students with opportunities to learn and practice critical scientific skills within the context of relevant scientific questions. Topics include the nature of science, the importance of chemistry to society, atomic structure, bonding in matter, chemical reactions, redox reactions, electrochemistry, phases of matter, equilibrium and kinetics, acids and bases, thermodynamics, quantum mechanics, nuclear reactions, organic chemistry, and alternative energy. Scientific inquiry skills are embedded in the direct instruction, wherein students learn to ask scientific questions, form and test hypotheses, and use logic and evidence to draw conclusions about concepts. Lab activities reinforce critical thinking, writing, and communication skills and help students develop a deeper understanding of the nature of science. Throughout this course, students are given an opportunity to understand how chemistry concepts are applied in technology and engineering. Journal and Practice activities provide additional opportunities for students to apply learned concepts and practice their writing skills. The content is based on the American Association for the Advancement of Science (AAAS) Project 2061 benchmarks and the National Science Education Standards and is aligned with state standards.

## **Earth Science—APEX**

Earth Science offers a focused curriculum that explores Earth's composition, structure, processes, and history; its atmosphere, freshwater, and oceans; and its environment in space. Course topics include an exploration of the major cycles that affect every aspect of life, including weather, climate, air movement, tectonics, volcanic eruptions, rocks, minerals, geologic history, Earth's environment, sustainability, and energy resources. Optional teacher-scored labs encourage students to apply the scientific method. The content is based on the National Science Teachers Association (NSTA) standards and is aligned with state standards.



## **Environmental Science A—Advanced Academics**

Everything you do has an effect on the environment around you. Environmental Science A, the first course of a two-semester series, is an introductory class that explores the nature of science, the natural world, and the ways in which you interact with it. You will examine environmental issues and learn to make informed decisions using scientific problem solving. Some specific topics include ecological interactions, matter and energy flow in ecosystems, and biogeochemical cycles. You will explore how humans have changed the earth and vice versa by studying biodiversity, evolution, succession, and the characteristics and growth of populations. Finally, you will learn about safe and efficient ways to use the earth as a resource through the study of soil and land resources, agriculture, waste management, and characteristics of terrestrial biomes. Pre-requisites: Living Environment A&B

## **Environmental Science B—Advanced Academics**

Recycling, minimizing the use of electricity and gas, and buying organic produce. How else can you help the environment? Environmental Science B, the second course of a two-semester series, continues the study of the natural world. You will explore aquatic biomes and learn about the management of water resources. You will learn how we use mineral resources and what effects mining has on the environment. You will also learn about atmospheric cycles and climate change. You will explore renewable and nonrenewable energy resources and learn about sustainability, which refers to the things you can do to help the environment. Pre-requisite: Environmental Science A

## **Great Minds in Science—FuelEd**

Is there life on other planets? What extremes can the human body endure? Can the global warming problem be solved? Today, scientists, explorers, and writers are working to answer all of these questions. Like Edison, Einstein, Curie, and Newton, the scientists of today are asking questions and working on problems that may revolutionize our lives and world. This course focuses on ten of today's greatest scientific minds. Each unit takes an in-depth look at one of these individuals, and shows how their ideas may help to shape tomorrow's world. Prerequisites: None

## **Living Environment A—Advanced Academics**

How do our genes determine how we look, act, and even when we get sick? Living Environment A, the first course of a two-semester series, introduces you to life sciences, the scientific method, and inquiry processes. The course explains proper lab techniques and safety procedures and methods for conducting scientific experiments and communicating their results. You will begin your study with an overview of what constitutes a living organism, followed by an in-depth study of the components that make up a healthy cell. You will examine the structures and processes that occur in different types of cells. Other topics in this course include biochemistry, cellular activities, genetics, human heredity, evolution, and genetic engineering. This course is aligned to Common Core literacy standards. Co-requisite: Algebra I A

## **Living Environment B—Advanced Academics**

Did you know that Earth is a living thing and that our ecosystems sustain it? Living Environment B, the second course of a two-semester series, provides you with an overview of classifying organisms and examining human body systems. You will explore the dynamics within ecosystems and how the classification of organisms was developed. You will analyze organisms in the six kingdoms by examining their anatomical and physiological characteristics. Students will also learn about the major systems of the human body and how bacteria and viruses cause disease. This course is aligned to Common Core literacy standards. Co-requisite: Algebra I B; Pre-requisite: Biology A

## **Marine Science—Florida Virtual**

Pre-Requisites:

Credits: 1.0

Estimated Completion Time: 2 segments / 32-36 weeks

Description: As our amazing planet continues to change over time, it becomes increasingly apparent how human activity has made environmental impacts. In the marine science course, students will delve deep into Earth's bodies of water and study geologic structures and how they impact the oceans. Students will investigate characteristics of various populations, patterns of distribution of life in our aquatic systems, and ongoing changes occurring every day in our precious ecosystems. Students will be amazed and enlightened at just how much our oceans and lakes affect climate, weather, and seasonal variations. They will have the opportunity to explore the relationships among living organisms and see how they are affected by our oceans currents, tides, and waves. Hold on, it is one amazing journey.

## **Physical Science—APEX**

Physical Science offers a focused curriculum designed around the understanding of critical physical science concepts, including the nature and structure of matter, the characteristics of energy, and the mastery of critical scientific skills. Course topics include an introduction to kinematics, including gravity and two-dimensional motion; force; momentum; waves; electricity; atoms; the periodic table of elements; molecular bonding; chemical reactivity; gases; and an introduction to nuclear energy. Teacher-scored labs encourage students to apply the scientific method. The content is based on the National Science Teachers Association (NSTA) standards and is aligned with state standards.

LAB REQUIREMENTS WILL NEED TO BE FULFILLED BY THE DISTRICT IN-HOUSE. NY STATE DOES NOT RECOGNIZE OR ACCEPT ONLINE LABS.

## **Physics—APEX**

Physics offers a curriculum that emphasizes students' understanding of fundamental physics concepts while helping them acquire tools to be conversant in a society highly influenced by science and technology. The course provides students with opportunities to learn and practice critical scientific skills within the context of relevant scientific questions. Topics include the nature of science, math for physics, energy, kinematics, force and motion, momentum, gravitation, chemistry for physics, thermodynamics, electricity, magnetism, waves, nuclear physics, quantum physics, and cosmology. Scientific inquiry skills are embedded in the direct instruction, wherein students learn to ask scientific questions, form and test hypotheses, and use logic and evidence to draw conclusions about the concepts. Lab activities reinforce critical thinking, writing, and communication skills and help students develop a deeper understanding of the nature of science. Throughout this course, students are given an opportunity to understand how physics concepts are applied in technology and engineering. Journal and Practice activities provide additional opportunities for students to apply learned concepts and practice their writing skills. The content is based on the American Association for the Advancement of Science (AAAS) Project 2061 benchmarks and the National Science Education Standards and is aligned with state standards.

LAB REQUIREMENTS WILL NEED TO BE FULFILLED BY THE DISTRICT IN-HOUSE. NY STATE DOES NOT RECOGNIZE OR ACCEPT ONLINE LABS.

## **Social Studies**

### **Anthropology--Advanced Academics**

Have you ever wondered what it would be like to live during a different time in history? What would it have been like to live as a caveman? How about during the Ice Age or severe droughts and famines? Thanks to archaeologists, forensic scientists, and other experts in anthropology, we know a lot about what our ancestors' lives would have been like—even before written history. Introduction to Anthropology, a beginner-level, one semester course, focuses on humanity's past, present, and future by exploring the evolution, similarities, and diversity of humankind through time. The course considers

how humans evolved from a biologically and culturally weak species to a more powerful one that has the ability to cause catastrophic change. Ultimately, you will be asked to consider the problems humans face in biological, social, and cultural life. Exciting online videos lead you through journeys to different areas of the world throughout the course, giving you insight into other cultures and your own place in the world.

## **Archaeology (provided by eDynamic)—FuelEd**

George Santayana once said, “Those who cannot remember the past are condemned to repeat it.” The field of archaeology helps us better understand the events and societies of the past that have helped shape our modern world. This course focuses on the techniques, methods, and theories that guide the study of the past. Students learn how archaeological research is conducted and interpreted as well as how artifacts are located and preserved. Students also learn about the relationship of material items to culture and what we can learn about past societies from these items. Prerequisites: None

## **Civics—FuelEd**

Civics is the study of citizenship and government. This one-semester course provides students with a basic understanding of civic life, politics, and government, and a short history of government’s foundation and development in this country. Students learn how power and responsibility are shared and limited by government, the impact American politics has on world affairs, the place of law in the American constitutional system, and which rights the American government guarantees its citizens. Students also examine how the world is organized politically and how civic participation in the American political system compares to that in other societies around the world today.

Prerequisites: None

## **Current Events—Advanced Academics**

How can you discuss the important issues of our day in a meaningful way? Current Events is an introductory, one semester, elective course structured to increase your understanding of current issues in areas of politics, society, and economics. This course emphasizes research, and the topics you will encounter are broad in nature to allow for fluctuation in media coverage on common topics. You will engage in discussion of issues with your peers, including long-standing, complex issues of debate in our country such as capital punishment, genetic engineering, censorship, prayer in schools, gun control, affirmative action, immigration, and global warming. You will express your viewpoints on these subjects using the text of your research to support your statements. Upon completing this course, you will have a greater understanding of some of the political, social, and economic issues that have dominated the news in recent years. You will distinguish between objective and subjective thought in your thinking and sources’ reasoning and will learn to make educated decisions as to whether the sources present biased or unbiased coverage. For each content unit, you will write essays that demonstrate your research efforts, integrating current viewpoints with the background conversation about issues. Basic writing skills such as paragraph development and good mechanics are a pre-requisite.

## **Economics—Advanced Academics**

How much are you willing to pay for a toothbrush? Why would one toothbrush cost \$1.29 while a similar one costs \$3.19? In Economics, a one-semester course, you will study how resources are produced, consumed, and exchanged. The course presents a broad view of how money affects people’s daily lives by outlining the relationships among companies, customers, governments, and multinational organizations. The course also introduces micro- and macroeconomics, which explain how prices are set and how people make decisions about buying and selling resources. Key topics include the law of supply and demand, saving, borrowing and spending, the Federal Reserve System, and the role of government in an open market economy. By taking this course, you will learn how to make financial decisions, start a company, and even buy a toothbrush.

## **Global History and Geography 9 A—Advanced Academics**

Have you ever heard of the ancient Egyptian Book of the Dead? This book contained instructions for those in the afterlife and was found in many excavated tombs. In Global History and Geography 9 A, the first course in a two-semester series, you will have the opportunity to learn much about how the ancient Egyptians viewed the afterlife and their many rituals associated with death. You will examine the beginnings of the ancient Near East and Nile civilizations; Greek and Roman societies; the Americas; Muslim, African, and Asian cultures; and the European Middle Ages. When you finish the course, you will be able to identify socioeconomic, political, and ideological characteristics of many historical cultures.

## **Global History and Geography 9 B—Advanced Academics**

Who was the first person to ever see into outer space? How was this accomplished? What was seen? The answer to these questions and many more interesting inquiries are found in Global History and Geography 9 B, the second course in a two-semester series. In this course, you will acquire the skills necessary to understand world culture by studying life in the Middle Ages, the Crusades, the Renaissance, and the Reformation. You will interact with animation that brings history to life and explains some of the most interesting events to ever occur. *Pre-requisites: Global History and Geography 9 A*

## **Global History and Geography 10 A—AAI**

Did you know the submarine was invented in Germany and first used in World War I? It was originally called the U-boat, which was short for untersee or “under the sea.” In Global History and Geography 10 A, the first course in a two semester series, you will learn about the submarine’s role in World War I and the use of many more interesting tactics. The course also provides engaging narratives of revolutionary Europe, the Industrial Revolution, nationalism, and imperialism. By the end of the course, you will be able to identify political, economic, and social effects of war; understand the effects of interaction between humans and the environment; and apply critical thinking skills to organize and use information acquired from a variety of sources.

## **Global History and Geography 10 B—AAI**

In 1942, 60 countries from 6 continents were involved in World War II. What could cause such a huge war? What was the outcome? In Global History and Geography 10 B, the second course in a two-semester series, you will take an in-depth look at World War II and how it shaped today’s world. The course also focuses on the causes and circumstances of the Cold War and other events that shaped the modern age. By the end of the course, you will be able to identify political, economic, and social effects of war; understand the effects of interaction between humans and the environment; and apply critical thinking skills to organize and use information acquired from a variety of sources. *Pre-requisites: Global History and Geography 10 A*

## **History of the Holocaust (provided by eDynamic)—FuelEd**

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

Prerequisites: None

## **Multicultural Studies—APEX**

Multicultural Studies is a one-semester elective history and sociology course that examines the United States as a multicultural nation. The course emphasizes the perspectives of minority groups while allowing students from all

backgrounds to better understand and appreciate how race, culture and ethnicity, and identity contribute to their experiences. Major topics in the course include identity, immigration, assimilation and distinctiveness, power and oppression, struggles for rights, regionalism, culture and the media, and the formation of new cultures.

In online Discussions and Polls, students reflect critically on their own experiences as well as those of others. Interactive multimedia activities include personal and historical accounts to which students can respond using methods of inquiry from history, sociology, and psychology. Written assignments and Journals provide opportunities for students to practice and develop skills for thinking and communicating about race, culture, ethnicity, and identity. The content and skill focus of this interdisciplinary course is based on the National Council for the Social Studies (NCSS) Expectations of Excellence: Curriculum Standards for Social Studies as well as the National Standards for History published by the National Center for History in Schools (NCHS). Course Materials: No required or optional materials.

## **Psychology—Advanced Academics**

A long-standing debate around whether or not psychology is a true science opens this one-semester elective. Introduction to Psychology challenges you to look closely at the field of psychology and take your own stance in the argument. In this entry-level course, you will explore the research methods employed in psychological study, compare these methods to those used in other branches of science, and discover the reasons for studying human behavior. You will then design and implement your own behavior-modification experiment as you learn about the mechanics behind human learning. The course also delves into specific areas of the field, such as development, memory, and psychological disorders.

## **Sociology—APEX**

Sociology examines why people think and behave as they do in relationships, groups, institutions, and societies. Major course topics include individual and group identity, social structures and institutions, social change, social stratification, social dynamics in recent and current events, the effects of social change on individuals, and the research methods used by social scientists. In online discussions and polls, students reflect critically on their own experiences and ideas, as well as on the ideas of sociologists. Interactive multimedia activities include personal and historical accounts to which students can respond, using methods of inquiry from sociology. Written assignments provide opportunities to practice and develop skills in thinking and communicating about human relationships, individual and group identity, and all other major course topics. The course content is based on the National Council for the Social Studies (NCSS) Expectations of Excellence: Curriculum Standards for Social Studies.

## **U.S. Government—AAI**

Why would a government official stand before the U.S. Senate and read from a phone book? Senators sometimes prolong speeches to prevent a vote on a particular bill. This tactic is called a filibuster, which is from a Dutch word meaning “pirate.” The senator is required to stay on topic for the first three hours but can speak about anything for the remainder of the speech, including reading from a phone book. U.S. Government, a one-semester course, details many interesting components of the history, principles, and institutions of the U.S. government. You will also be introduced to many forms of government and explore the governments of other countries. The course provides a basic understanding of the origins and importance of the U.S. Constitution. By the end of the course, you will understand how the legislative, executive, and judicial branches of government operate. You will also understand the processes and motivations for political participation.

## **United States History and Government A—AAI**

Did you know the Boston Massacre started with a snowball fight? On March 5, 1770, in Boston, Massachusetts, a mob of about 60 Bostonians began throwing snowballs at British soldiers who were guarding the Custom House. Tensions escalated and when fighting ended, five Bostonians lay dead in the streets. In United States History and Government A, the first course in a two-semester series, you will learn how events like this led to American independence. The course begins with a thorough study of North America, which includes physical and political geography, resources, culture, human impact on the environment, and the effects of human migration. You will also learn about the foundations of American society, the

Civil War, industrialization, Reconstruction, westward expansion, the Progressive movement, and America's growth into a world power. By the end of this course, you will be able to analyze the political, economic, and social impact of historical events like the Boston Massacre, while applying critical thinking skills to process information from a variety of sources.

## **United States History and Government B—Advanced Academics**

Picture this: it's Christmas. Hundreds of soldiers in trenches are separated by a large field called "no man's land." Several German soldiers begin setting up Christmas trees and singing carols. Slowly, the opposing British and French soldiers begin to meet German soldiers in the field to exchange gifts, sing, and play soccer. This brief, spontaneous truce, the only one of its kind in recorded history, happened during World War I. In United States History and Government B, the second course in a two-semester series, you will explore this unusual event and many other important events from World War I. Following this, you will be introduced to the Roaring Twenties and the subsequent Great Depression. Next, you will study World War II, the Cold War, and the civil rights movement. The course concludes by exploring the impact of recent presidents and current affairs that have shaped present-day America. The course aims to provide you with the skills necessary to analyze the impact of various historical events and to apply critical thinking skills to process information from a variety of sources.

*Pre-requisite: United States History and Government A*

## **U.S. Law and Politics—Advanced Academics**

Treason is the only crime specifically defined in the U.S. Constitution. Why did the Constitution's framers think it was so important to define it? In U.S. Law and Politics, a one-semester course, you will learn the answer. This course begins by discussing types of courts and laws, including property law, school law, juvenile law, and even laws about automobiles. You will also learn about the judicial branch of government, public opinion and political behavior, political parties and interest groups, the electoral process, and the executive branch of government. Most Americans will vote in an election or participate in a court trial at some point in their lives. This course will help you become a responsible, well-informed U.S. citizen.

## **World Religions (provided by eDynamic)—FuelEd**

Throughout the ages, religions from around the world have shaped the political, social, and cultural aspects of societies. This course focuses on the major religions that have played a role in human history, including Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism, Shintoism, and Taoism. Students trace the major developments in these religions and explore their relationships with social institutions and culture. The course also looks at some of the similarities and differences among the major religions and examines the connections and influences they have. Prerequisites: None

## **Test Prep**

### **Advanced Placement REVIEW COURSES—APEX**

Receive individualized prep for success on AP® exams.

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AP Exam Review is available for the following courses:

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| • AP Calculus AB                      | • AP Macroeconomics                     | • AP Statistics                   |
| • AP Chemistry                        | • AP Microeconomics                     | • AP U.S. Government and Politics |
| • AP English Language and Composition | • AP Psychology                         | • AP U.S. History                 |

## **Tutorials for Review and Test Prep—APEX**

- English 9
- English 10
- English 11
- English 12
- Algebra I
- Algebra II
- Geometry
- US History and Government

## **MIDDLE SCHOOL COURSES:**

### **MS Electives**

#### **Computer Literacy A—Advanced Academics**

Most children can read and write for a while before they are literate. Once they learn to put their skills to work, though, they acquire literacy. It's the same thing with computer literacy. You may know how to do some things on the computer—but to be computer literate, you have to make those skills work for you. That's what you will learn in Computer Literacy A, a one semester course. You will develop your overall understanding of computers and enhance your technical skills in both basic computer functions and in the use of various types of software. After completing this course, you will be able to recognize computer hardware and use Windows XP and Mac OS operating systems. You will learn to use various software applications (word processing, spreadsheet, and presentation software), which are based on Open Office programs unless otherwise noted. You will also learn to navigate the Internet and use e-mail and FTP. When studying word processing software, you will write a letter and format documents, create tables and charts, and use other advanced tools. You will learn how to format and use the basic tools and formulas of spreadsheet software. You will also create an animated, interactive project using presentation software

#### **Family and Consumer Science (FACS)—FuelEd**

In this course, students develop skills and knowledge to help them transition into adult roles within the family. They learn to make wise consumer choices, prepare nutritious meals, contribute effectively as part of a team, manage a household

budget, and balance roles of work and family. They gain an appreciation for the responsibilities of family members throughout the life span and the contributions to the well-being of the family and the community.

## **Life Skills—Advanced Academics**

No matter what you do, there is an essential set of skills that will help you to be successful in life's basic pursuits. Whether your future holds a college experience, technical school, the military, or a full-time career, Life Skills—a beginning-level, one semester course—will teach you the basic skills needed for life after high school. In addition to providing strategies for taking the ACT and SAT tests, this course will provide an informative timeline to help you stay on schedule with required tasks for graduating from high school and entering the outside world. This course will also cover important topics such as consumer protection, establishing credit, managing money, buying a car, and renting an apartment for the first time.

## **MS Study Skills—Advanced Academics**

In middle school, it's important for you to start thinking about how you learn. Knowing your own learning styles will help you to be a more successful student. In MS Study Skills, a one semester introductory course, you will discover your own learning styles and how to use them to your advantage. You will also learn skills such as planning, time management, active listening, note-taking, test-taking, and writing. Skills learned in this course will not only help you to be successful in school, but will apply to other areas of life as well.

## **MS English Language Arts**

### **MS Language Arts 6 A—Advanced Academics**

Have you ever been asked to write a report over something you didn't know very much about? Or read a story that you didn't understand? Did you ever have to write a story as you sat looking at your computer screen without a single idea? These things have happened to everyone at some point. MS Language Arts 6 A is the first semester of an introductory-level English language arts course that will help you gain and develop skills in reading and writing. These skills will help you succeed in all your courses in school. This course will also help you read and analyze both fiction and nonfiction texts. You will practice your language skills of spelling, grammar, and vocabulary. You will respond to different kinds of literature and communicate with the teacher and other students through chat and discussion assignments. You will read *Hatchet* by Gary Paulsen and have options to self-select other texts and media items. This course requires one or more novels, which can be acquired at any public library.

### **MS Language Arts 6 B—Advanced Academics**

If you like to read, then you will love MS Language Arts 6 B. This is the second semester of the introductory-level language arts course. Whether it is short poetry, drama, mythology, or a longer work of fiction, this course will have something to appeal to the young reader. If you would rather write, there are many different kinds of writing assignments with which to express yourself as well. Now, if you can think of all kinds of reasons for believing or doing something and can come up with convincing arguments to prove your point, then the unit on persuasion and argumentation might be more to your taste. If you like to watch television and movies, or if surfing the web is what you enjoy, then the unit on media literacy could be your favorite part of the course. No matter your preference, you will have a wide variety of language arts to sample in the course as you continue to practice and improve your grammar and vocabulary skills. This course requires one or more novels, which can be acquired at any public library.

*Pre-requisite: MS Language Arts 6 A*

### **MS Language Arts 7 A—Advanced Academics**

The act of writing is a mysterious process to many students, so don't feel alone if this is the case for you. Fortunately, MS Language Arts 7 A will teach you the skills to master the process. In fact, the writing process is what the first unit is all



about. You will learn and practice the different steps of prewriting, drafting, revising, and editing. You will discover the tricks to writing for different purposes and occasions, as well as how to meet the needs of your audience. MS Language Arts 7 A is the first semester of a two-semester series that builds upon prior knowledge and skills to strengthen your reading, writing, speaking, and listening skills. The course covers traditional literature such as folk tales, myths, and legends, as well as more modern literature such as science fiction stories and drama. You will select texts for independent reading and will learn the steps for writing and delivering an effective speech. You will also practice your interpersonal communication through chats and discussions with the teacher and other students. This course requires one or more novels, which can be acquired at any public library.

*Pre-requisites: MS Language Arts 6 A&B*

## **MS Language Arts 7 B—Advanced Academics**

Do you ever feel left out and lonesome? Do you ever think that other kids have it better than you? Well, “Things are rough all over.” So says Cherry Valance, a pretty and popular girl to Ponyboy Curtis, the narrator of *The Outsiders* by S. E. Hinton. MS Language Arts 7 B is the second semester of the two semester course and it begins with an in-depth study of *The Outsiders*, one of the best and most-beloved YA (young adult) novels ever written. While reading *The Outsiders*, you will continue to develop your writing skills by practicing the writing process covered in the previous semester. You will also study vocabulary, including analogies and the use of context clues. You will develop skills in grammar, critical thinking, and literature appreciation. You will self-select different kinds of texts and conduct research in an independent project. MS Language Arts 7 B has plenty of variety to appeal to all of your language interests and needs. This course requires one or more novels, which can be acquired at any public library.

*Pre-requisite: MS Language Arts 7 A*

## **MS Language Arts 8 A—Advanced Academics**

MS Language Arts 8 A, the first course in a two-semester series, gets back down to basics. How basic? As basic as “Where do words come from?” After a study of word origins and word parts, you will continue vocabulary and language development throughout the course with further lessons in parts of speech and correct usage. Sprinkled throughout the course are wonderful examples of fiction and non-fiction texts, such as short stories, poems, and even a YA (young adult) novel called *The Giver*. You will analyze literature at a beginner’s level and write a critical review of the book. You will have the choice to self-select other texts and media for your enjoyment and for academic purposes. You will stay in contact with your teacher and other students through regular chats and discussions. This course requires one or more novels, which can be acquired at any public library.

*Pre-requisites: MS Language Arts 7 A&B*

## **MS Language Arts 8 B—Advanced Academics**

“In spite of everything, I still believe that people are really good at heart.” One of the most famous Holocaust victims, Anne Frank, was only 15 when she died in a concentration camp in 1945. In MS Language Arts 8 B, the second part of the two semester course, you will use Anne’s diary and the play and movie based on it to learn about her personal story. You will then use this material to complete a research project about the ties between history and literature. You will also read a novel of your own choice and other texts and media for both your enjoyment and for academic purposes. You will continue to develop your English language skills through short activities and longer essays, such as a personal narrative and a how-to essay. As always in your online courses, you will maintain contact with your teacher and other students through online chats and discussions interspersed regularly throughout the course. This course requires one or more novels, which can be acquired at any public library.

*Pre-requisite: MS Language Arts 8 A*

## **MS Journalism--FuelEd**

Who? What? When? Where? Journalism provides us with the answers to these questions for the events that affect our lives. In this course, students will learn how to gather information, organize ideas, format stories for different forms of news media, and edit their stories for publication. The course will also examine the historical development of journalism and the role of journalism in society.

## **MS Fine Arts**

### **MS Art Appreciation 6—Advanced Academics**

The earliest humans expressed themselves through art. They used it to tell stories and remember events long before writing was invented. MS Art Appreciation 6 is a one-semester course that exposes you to the world of art through a historical study of ancient civilization's powerful expressions. The course starts with an examination of the cave art painted thousands of years ago, the first expressions of creative activity demonstrated by early people. You will explore the art from Mesopotamia, where the Sumerians gave birth to the first written language known as cuneiform. You will continue the journey through art history with a study of ancient China and Japan, ancient Greece and Rome, and finally to the ancient Americas. Other exciting studies include the ancient Egyptians who designed and built the Pyramids of Giza. You will learn the value of natural history museums and the importance of conserving the history of mankind that has been documented through art.

### **MS Art Appreciation 7—Advanced Academics**

You may think that art and science are opposites, but a study of medieval and Renaissance art will demonstrate that artists were eager to incorporate new technology into their art. When you examine the art and architecture of the time period between 800 and 1520 AD, you will appreciate the desire for innovation and the dedication of people to work a lifetime on great cathedrals. MS Art Appreciation 7 is a one-semester course that details the mission of art museums and offers reasons for the great value that we place on artwork. You will explore artifacts from the medieval period of history, including the Romanesque cathedrals and the revolutionary change in architectural design that was exhibited in the construction of Gothic cathedrals in Europe. You will become immersed in the technology advances of architecture and the invention of oil paint, which gave us the rich and vibrant colors of the Italian Renaissance master artists such as Leonardo da Vinci, Michelangelo, and Botticelli. The course exhibits artwork from Vermeer, Durer, and Rembrandt, demonstrating activity in the North and in Spain as well. You will also study the art of Africa and Islamic regions, such as African ancestral masks. The course examines art and architectural achievement from around the world, including the Taj Mahal in India, the Forbidden City in China, and the artwork of the Americas before European explorations. You will learn how to place these artworks and others into historical, social, and cultural context. This course includes art projects and paper assignments as well as other assessment types.

### **MS Art Appreciation 8—Advanced Academics**

Art is universal. It is not something that is limited to art galleries and museums; it is a vibrant form of expression that is ever-changing. MS Art Appreciation 8 is a one-semester course that guides you through the art of the modern world, which roughly spans from the year 1700 to today. You will explore artistic movements such as impressionism and expressionism, which began in the art power-houses of Paris and New York City. The course presents examples of artwork displayed in museums such as the Guggenheim in Spain. This course guides you through the progression of artistic expression and the themes that emerged as art moved into the modern era. Your study will take you to regions around the world, and you will examine the role of art within a culture. You will learn about careers in art, online resources, art associations, and how art historians and critics judge artwork using critical analysis and formalistic terminology. You will also study other art forms, such as advertising, graphic design, crafts, film, and television. This course includes hands-on art activities and paper assignments as well as other assessment types.

## **MS Music 6—FuelEd**

In this one-semester music appreciation course for sixth-graders, students learn foundational skills such as performing, listening, analyzing, and responding to music. They are exposed to fundamentals of music, such as rhythm, harmony, form, and texture. They learn to read and write music notation and to create and arrange music within specified guidelines. Integrated assignments incorporate other areas of study, such as science, social studies, and math. Students are exposed to a wide variety of musical styles, including classical, jazz, blues, rock, pop, and bluegrass. They also learn about the use of technology in music, including MIDI, interactive programs, audio equipment, mixers, and recording equipment

## **MS Music 7—FuelEd**

After students complete this one-semester music appreciation course, which is a follow-up to Music 6, they will be able to analyze and evaluate music. The course begins with a study of the fundamentals of music, such as musical notation, composition, harmony, rhythm, duration, and intensity. It then covers the role of technology, genre and style, social and cultural impact, and geographic diversity. Students complete activities that require higher critical thinking skills and integrate other areas of study, such as math, social studies, and science. They learn to understand music's role in history, make critical judgments and informed music choices, and reflect on musical periods and styles.

## **MS Music 8—FuelEd**

Music 8 is a one-semester music appreciation course for eighth-grade students that teaches them how to critically analyze music, use proper music terminology to describe musical concepts, and create music. The course includes fundamentals such as musical notation; the concepts of melody, harmony, tone, and pitch; the various families of musical instruments; and the function and benefits of rehearsal and practice sessions. Students learn about different genres of music, including classical, country, blues, Latin, and gospel. Integrated assignments incorporate other content areas of study, such as social studies, science, and math. Students learn to relate music to geographic regions, such as Africa, Asia, Central America, Europe, and North and South America.

## **MS Health & Physical Education**

### **MS Health with Sex Education A—Advanced Academics**

Did you know that lack of sleep can cause you to be overweight? In some ways, your health is out of your control. For example, heredity plays a significant part in determining whether you develop vision problems or heart disease. However, even if these things do not run in your family, your lifestyle choices can cause you to develop them. In MS Health A, the first course in a two-semester series, you will learn many ways to improve your health and prevent health problems. You will explore health basics, emotional health, stress, mental disorders, and suicide. You will also learn how relationships impact health and ways to deal with conflict and violence. This course also contains a unit on sexual health, which is intended to help you make informed choices when making decisions about intimacy or sex. While some of these topics are very difficult to discuss, the knowledge you will gain from this course will help you live the healthy life that you desire.

### **MS Health with Sex Education B—Advanced Academics**

Have you ever heard that knowledge is power? When it comes to leading a healthy lifestyle, this is certainly true. There are many misconceptions associated with healthy eating and nutrition. When trying to eat a healthy diet, it is important to learn about how your body interacts with food. In MS Health B, the second course in a two-semester series, you will learn about the roles that nutrients, vitamins, minerals, carbohydrates, fats, and proteins play in your body. The course covers additional topics related to living a healthy life, including steps to plan a healthy diet, the benefits of physical activity, the risks of drugs and alcohol, behaviors that help with healthy pregnancy, and a study of the immune system. The course also contains information about risky behaviors and treatments for sexually transmitted infections and changes to the body that occur

during adolescence. Because eating a healthy diet is only one part of being healthy, this course will help you understand how to keep your whole body healthy.

### **MS Physical Education 6 A—Advanced Academics**

Have you ever wondered about your fitness level, or thought about how to exercise safely at school or in the gym? MS Physical Education 6A introduces you to the basics of a healthy lifestyle that forms the foundation for lifetime fitness. This course presents fundamental fitness concepts, including target heart rate, fitness testing, goal setting, and exercise safety. You will discover essential information about your personal fitness level and learn the importance of setting healthy goals. Popular exercise and lifetime activity options include hip-hop, folk dance, aerobic dance, and rhythmic gymnastics. Most of your grade will come from assignments and activities, but you will also participate in a few class discussions and participate in the President's Challenge fitness test.

### **MS Physical Education 6 B—Advanced Academics**

Do you participate in sports after school or attend a yoga class? If so, then you are doing a great job maintaining a healthy lifestyle. MS Physical Education 6B will teach you how to apply the proper form as you participate in a variety of sports activities designed to promote overall fitness. You will also be introduced to a variety sports such as basketball, golf, and badminton and learn how to exercise through activities such as walking for fitness, flexibility training, and yoga. As you work through the course, you will learn the importance of conflict resolution and learn how to make smart choices for wellness and nutrition. Most of your grade will come from assignments and activities, but you will also participate in class discussions and complete a series of activity logs.

### **MS Physical Education 7 A—Advanced Academics**

Have you ever wondered how science and fitness work together, or why it is so important to monitor your heart rate while exercising? You will find the answers to these questions in MS Physical Education 7A. This one-semester course will introduce you to fitness components such as cardio endurance and muscular strength and endurance, as well as help you understand the importance of developing flexibility. Through personal fitness testing, setting specific long- and short-term goals, and self-evaluation, you will learn about the foundations of a lifetime fitness plan. Most of your grade will come from assignments and activities, but you will also participate in class discussions, complete a series of activity logs, and write a research paper.

### **MS Physical Education 7 B—Advanced Academics**

Consider your own fitness level. It's likely that you already participate in activities that promote fitness. Weekend basketball games with friends, short walks with your dog, and going for a swim at the neighborhood pool are all ways to be active. However, it's also important to develop a formalized workout plan that will ensure that you are getting the exercise you need to maintain a healthy, fit lifestyle. Physical Education 7B, a one semester course, introduces you to a variety of fitness concepts, activities, and workout methods such as cross training, Pilates, yoga, and kickboxing. In addition to learning about workout methods, you will also learn how to read a compass and how to participate in a treasure hunt activity called orienteering. As you work through the course, you will complete assignments, develop workout routines, participate in class discussions, and write papers to demonstrate your understanding of the course topics.

### **MS Physical Education 8 A—Advanced Academics**

When you exercise, your body and your mind work together. In this course, you will learn a variety of techniques that form the foundation for biomechanics, which is the science of how to improve performance in sports, dance, and other physical activities. MS Physical Education 8A is the first part of a two semester course. In this course, you will participate in activities designed to help you maximize your overall fitness. At the beginning of the course, you will learn about finding your target heart rate and setting fitness goals and will complete a personal fitness test. Later in the course, you will learn about how the body responds to exercise, how to exercise safely, and how to use the FITT formula to get the best results while

exercising. You will explore concepts such as static and dynamic balance and learn how movement plays a role in exercise. Most of your grade will come from assignments and activities, but you will also participate in class discussions and complete a series of activity logs.

## **MS Physical Education 8 B—Advanced Academics**

If exercise is so good for us then why do we find it so hard to exercise regularly? When you were in grade school, you probably could not wait for recess. It was a time to get outside and walk, run, jump, and have fun. Exercise seemed enjoyable. As you get older, you might find it more challenging to find time to get physically fit. However, it does not have to be that way if you focus on activities you enjoy and create a routine that is tailored to your needs. MS Physical Education 8B is the second part of a two-semester course that provides an opportunity for you to create a personalized fitness program and learn about the benefits of weight and strength training for overall fitness.

You will be introduced to important techniques such as stress management and deep breathing exercises for relaxation. This course also provides opportunities for you to participate in sports and non-sports related activities such as cycling, tennis, wall ball, and line dancing. You will also have the opportunity to learn about yoga and Pilates and demonstrate your understanding by writing a paper about the health benefits of the two exercises. Most of your grade will come from activities and assignments, but you will also participate in classroom discussions and complete a multimedia research project.

## **MS Math**

### **MS Math 6 A—Advanced Academics**

Math is such an important skill to have; it is used every day in all types of situations. MS Fundamentals of Math 6 A, the first of a two-semester series, offers a solid overview of fundamental math skills and a brief introduction into algebraic concepts—focusing on the foundational skills needed to be effective in everyday situations. In this course, you will review the basic operations of whole numbers. You will also be introduced to algebraic concepts such as variables and expressions. In order to solve simple equations, you will learn about decimals, fractions, integers, mixed numbers, and the order of operations.

### **MS Math 6 B—Advanced Academics**

Math is used every day when you calculate tips and discounts, evaluate your average course grade, or determine which products are better buys. MS Fundamentals of Math 6 B, the second in a two-semester series, builds upon foundational math skills. In this course, you will expand your geometry and measurement skills by learning to classify triangles and find the perimeter, circumference, area, surface area, volume, and sum of the interior angles of a polygon. You will also learn to convert both customary and metric units of measurement. Next, you will explore the best methods for collecting and displaying data and begin to recognize bias in data samples. The course ends with solving and graphing inequalities, investigating functions, and learning how to graph functions on the coordinate plane.

*Pre-requisite: MS Fundamentals of Math 6 A*

### **MS Math 7 A—Advanced Academics**

Math skills are used in every career. Beauticians must measure ingredients to create their hair dyes. Architects work with very detailed measurements to ensure that their buildings will withstand the fiercest weather conditions. Video game designers use mathematical functions in the code they write. MS Fundamentals of Math 7 A, the first course of a two-semester series, will offer you a foundation on which you can build more sophisticated math skills. In this course, you will study integers, exponents and factors, operations with fractions, ratios and proportions, and expressions and equations. This knowledge will prepare you for success in higher-level math classes, which will enable you to work in almost any field.

*Pre-requisites: MS Fundamentals of Math 6 A&B*

## **MS Math 7 B—Advanced Academics**

Having a solid foundation of basic math skills is essential to being successful in future math courses—and for a variety of tasks in the real world. MS Fundamentals of Math 7 B, the second course of a two-semester series, continues to build your foundation of math skills. You will learn about functions and inequalities, data, statistics and probability, the basics of geometry, and two- and three-dimensional geometry. You will solve and graph inequalities, linear equations, and linear functions. You will also plot, describe, and find data using several methods to figure outcomes and probabilities. Using basic geometry techniques, you will classify and find shapes and angles. You will also find area, learn to apply the Pythagorean Theorem, and find volume and surface area for different shapes.

*Pre-requisite: MS Fundamentals of Math 7 A*

## **MS Introduction to Probability and Statistics—Advanced Academics**

If you have ever watched commercials on television, there is a 99% chance that you've been lied to. If you read that sentence carefully, you know that you were lied to just now. Businesses and individuals use statistics to influence people all of the time. Sometimes, they omit important numbers or purposely focus on data that support a particular perspective. In MS Introduction to Probability and Statistics, a one semester course, you will be introduced to the concept of data bias. Through learning about how data is properly analyzed, you will gain the tools necessary to avoid being deceived. You will also explore interesting analysis tools used in nearly every industry, including representing statistical data, interpretation of data, collection of data, uses of data, probability, and probability models. By completing this course, you will be able to make sound decisions based on accurate interpretation of data.

*Pre-requisites: Algebra I A&B*

## **Pre-Algebra A (Common Core) —Advanced Academics**

Did you know that the sum of the squares of the leg lengths of any right triangle is equal to the square of the length of its hypotenuse? Of course you did! This is the Pythagorean theorem, possibly the most famous mathematical theorem of all time. In Pre-Algebra A, the first course in a two-semester series, you will explore the Pythagorean theorem and interesting ways that it is used. This course focuses on preparing you for Algebra I by exploring introductory algebraic topics, such as real numbers, exponents, Order of Operations, variables, expressions, equations, basics of geometry, triangles, and geometric transformations. This course is followed by Pre-Algebra B, which is intended to complete your preparation for Algebra I.

## **Pre-Algebra B (Common Core) —Advanced Academics**

If we are incapable of seeing into the future, how do meteorologists predict weather conditions seven days in advance? Their predictions are made using a mathematical technique called trend analysis. In fact, this technique is used in many industries, including beauty products, financial analysis, business management, marketing, and sports analysis. In Pre-Algebra B, the second course in a two-semester series, you will have the opportunity to learn about trend analysis and how to make accurate predictions about the future! You will explore topics that are important in preparing for Algebra I, such as solving equations, functions, graphing linear equations, and systems of linear equations. This course concludes with an overview of basic statistical analysis, including the study of trends. When you've completed this course, you will be well prepared to study Algebra I.

*Pre-requisite: Pre-Algebra A*

## **MS Science**

### **MS Earth Science 6 A—Advanced Academics**

We all have at least one thing in common: we all live on Earth. The more we understand about our planet, the smarter the decisions we'll be able to make regarding our lifestyles since what we do today affects the earth and our futures. MS Earth

Science A, the first course in a two-semester series, introduces you to scientific investigation and experimentation and describes the methods and tools scientists use to study the earth. You will learn to read geologic and topographic maps and various types of graphs for information. Types of energy and concepts of density, heat, and heat transfer are explored. You will examine the roles of these concepts in Earth's processes. The course concludes by examining Earth's layered structure and the transfer of heat from Earth's interior through its layers.

### **MS Earth Science 6 B—Advanced Academics**

The earth is a powerful place; it created its own mountains, earthquakes, icebergs, and volcanoes. Plate tectonics and the movement of plates result in these amazing geological events. MS Earth Science B, the second course in a two-semester series, examines how scientists use direct and indirect evidence to learn about Earth's interior to better understand such events. Basic ecological concepts are introduced, including interactions in ecosystems, matter and energy flow, and populations. You will also survey Earth's biomes in this course. Finally, the course concludes with an introduction to space science. You will explore the origin and structure of the universe, characteristics of the solar system, and motions of the planets and other celestial objects.

*Pre-requisite: MS Earth Science A*

### **MS Life Science 7 A—Advanced Academics**

In order to improve our lives in the areas of medicine, nutrition, and agriculture, it is vital that we study living organisms. In MS Life Science A, the first course in a two-semester series, you will be introduced to basic biological concepts and the use of the scientific method in the study of life. Specific topics include characteristics of life; classification of living organisms; and characteristics of bacteria, protists, fungi, plants, and animals. In addition, you will study evolutionary theory, ecology, and effects of resource use and pollution on ecosystems.

### **MS Life Science 7 B—Advanced Academics**

How much do you really understand about how your body works? MS Life Science B, the second course in a two-semester series, begins with an exploration of cell structure and function and organization of tissues, organs, and systems. You will then examine the following body systems: muscular, skeletal, digestive, excretory, reproductive, circulatory, respiratory, immune, nervous, and endocrine. For each body system, you will explore structure, function, related diseases, and disease prevention factors. The course also includes an introduction DNA structure, principles of inheritance, and genetic engineering.

*Pre-requisite: MS Life Science A*

### **MS Physical Science 8 A—Advanced Academics**

MS Physical Science A, the first course in a two-semester series, introduces you to topics focusing on scientific process skills, motion, forces, energy, behavior of matter, waves, machines and work, and electricity and magnetism. You will also learn the mathematical relationships between physical measurements.

### **MS Physical Science 8 B—Advanced Academics**

MS Physical Science B, the second course in a two-semester series, explores the following topics of study: properties of matter, elements, and compounds; chemical bonds and reactions; the importance of nuclear power; and careers and technology in the physical sciences. *Pre-requisite: MS Physical Science A*

## **MS Social Studies**

### **MS Civics—Advanced Academics**

Picture this: a ragged band of farmers, angry about high taxes and the lack of a voice in their government, defies the British Empire. Soldiers are sent to intimidate them, but the farmers will not back down. With a “shot heard ‘round the world,” the American Revolution erupts, and the United States is born. Inspired by America’s example, people from all over the world begin to embrace a new kind of democracy. MS Civics, a one semester course, provides an in-depth look at the origins of American democracy from the influence of philosophers to the Declaration of Independence and the framing of the Constitution. The course also explores federalism, civil liberties, and the three branches of government. You will gain an understanding of how the government functions, the duties of your elected officials, and your own rights and responsibilities as a U.S. citizen. The course concludes by examining state and local governments and discussing how to get involved in shaping policies that affect your community.

### **MS Social Studies 6—Advanced Academics**

### **MS Social Studies 7—Advanced Academics**

### **MS Social Studies 8—Advanced Academics**