

# eCourses<sup>™</sup>



Dynamic online courses for virtual, blended, & traditional learning environments **catalog** 2016/17



# EdisonLearning's middle school and high school product offerings each contain a multitude of different activities for a student to complete.

In both high school and middle school core lessons, students will always encounter lesson content, videos, and an assessment. Other activities will vary depending on the grade level, course structure, and subject area.

### Middle School (6-8)

**Lesson Video** – The video contains information that will help to strengthen knowledge of the lesson content and focuses on key subject-specific information.

**MyBook** – The main content of the lesson is found here. Students are encouraged to complete the embedded exercises by using interactive drawing and text tools.

**Reteach** – The Reteach page clarifies and further explains the information found in the MyBook area.

**Enrichment** – The Enrichment page encourages students to take their thinking beyond the content of the lesson.

**Audio, Visual, and Kinesthetic Links** – Students are directed to resources that address the content using different modalities.

**Activities Workbook & Answer Key** – Workbooks contain Foundational activities and puzzles such as word searches, crosswords, and matching exercises related to the lesson's content.

**Assessments** – Students are delivered their daily assessments in an interactive, visually stimulating game format. Summative assessments, such as quizzes and exams, are given in a conventional test format.

**Instructor Guide** – Designed for the teacher, this document reviews all of the lesson elements and provides teachers with extended activities to complete with students.

### High School (9-12)

**Need to Know** – The Need to Know video presents and discusses any information needed to understand the given lesson.

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

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

**Reteach** – The Reteach page re-emphasizes the main points of the Essential Instruction page content and provides the student with practice activities that are not graded.

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

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

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

EdisonLearning is accredited as a Distance Education School by the Northwest Accreditation Commission (NWAC), an accreditation division of AdvancED. EdisonLearning is also accredited as a Learning Service Provider by the Middle States Association Commission on Elementary and Secondary Schools (MSA-CESS).

### **High School Course Types**

- Traditional The self-guided courses allow students to be in control of their own learning. The performance alert system will notify the instructor when it may be necessary to intervene or provide additional support. Students enrolled in traditional courses work at their own pace.
- Competency-Based Students must demonstrate mastery of the concepts of a lesson before they are able to progress to the next lesson. These courses provide a self-remediating performance monitoring system. The courses are delivered through the Course Player content delivery system in an interactive, game-like interface. Competency-Based courses are self-paced and are available for all high school courses.
- Foundation Each course is designed to ensure that students master the foundational skills and knowledge that are critical building blocks for upper-level courses. Foundation *eCourses* contain fewer lessons than both the Traditional and Competency-Based *eCourses*. There are over 30 Foundation *eCourse* offerings in the core subject areas of English Language Arts, Math, Science, and Social Studies. Foundation courses also utilize the Course Player content delivery system. This type of course prepares students to control their own learning.
- Credit Recovery Each Credit Recovery course is designed upon request. The scope and sequence is created in accordance with the requesting school's particular needs and standards. Credit Recovery *eCourses* can be delivered through Traditional view or Competency-Based Course Player view. These courses can be custom developed using lessons from an existing course.

### **Course Options**

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

#### **Middle School MyDay**

Developed for students in grades 6, 7, and 8, MyDay *eCourses* encourage students to interact with and respond to lesson content. Students can access drawing tools to underline, highlight, and circle key terms and important concepts. They can also use writing tools to respond to questions posed in lessons. Assessments, delivered as games, are visually stimulating and highly engaging. Supplemental materials, such as printable PDF workbooks, offer students opportunities to synthesize material from the lessons via fun, low-stress puzzles and activities.

MyDay *eCourses* are offered for the core areas of Language Arts, Math, Science, and Social Studies, as well as a variety of electives.

#### **Custom Course Builder Tool**

In addition to the full listing of preconfigured courses available, EdisonLearning's Custom Course Builder application allows schools and districts to build their own courses by choosing specific lessons from any of our existing off-the-shelf courses to match their desired scope and sequence. This allows the flexible content of *eCourses* to be adjusted to meet specific requirements of the learning environment.

Teachers and curriculum designers can search, view, preview, and select course components based on their specific achievement objectives to assemble custom courses easily and efficiently.

- Searching and selecting lessons can be done using lesson title, objectives, or location in other courses.
- The drag-and-drop interface allows the course creator to quickly and easily reorder the lessons to match the desired scope and sequence.
- EdisonLearning's repository of content, which includes pools of assessment items mapped to each lesson, contains tens of thousands of learning objects available for use in a custom course.
- The entire course structure can be customized, including creating the assessments and gradebook point values.
- Training for the Custom Course Builder tool is available upon request.



# **High School** *eCourses*<sup>--</sup> **Options & Details**

		Length		Info		Available Options			
	Course Name		Semester	Year	Credit Recovery	NCAA Initial-Eligibility*	Foundation Version	Diagnostic Test	Progress Test
	English 1		~	*	<b>v</b>	>	~		~
	World Literature 1		>	<		>			K
	English 2		~	~	¥	<b>~</b>	<b>&gt;</b>		~
	World Literature 2		>	>		>			>
hsi	English 3		~	~	<b>v</b>	>	>		~
Engl	American Literature (Grade 11)		>	<		>			<
	English 4		~	~	×	>	>		<b>~</b>
	British Literature (Grade 12)		~	~		>			<b>v</b>
	SAT <sup>®</sup> Critical Reading and Writing	<b>~</b>							
	Research Paper Writing	<b>v</b>							
	Creative Writing		<b>~</b>						
	Gothic Literature: Monster Stories		<b>~</b>						
Engl	Mythology & Folklore: Legendary Tales		~						
	Public Speaking		<b>v</b>						
	Common Core Algebra 1		~	<b>&gt;</b>	<b>~</b>	>		<b>v</b>	<b>v</b>
	Common Core Geometry		<b>&gt;</b>	*	<b>v</b>	>		~	~
	Common Core Algebra 2		>	*	<b>v</b>	>		~	~
	Common Core Mathematics 1		>	*	<b>~</b>	>		>	~
	Common Core Mathematics 2		>	<b>&gt;</b>	<b>~</b>	>		<b>~</b>	<b>~</b>
<u>.</u>	Common Core Mathematics 3		>	>	<b>~</b>	>		<b>~</b>	<b>&gt;</b>
mat	Common Core Mathematics 4		~	<b>~</b>	<b>v</b>	>		¥	¥
the	General Math		<b>~</b>	<b>v</b>				¥	<b>v</b>
Mai	Pre-Algebra		<b>~</b>	<b>v</b>	×		<b>v</b>	¥	¥
<	Algebra 1		<b>~</b>	<b>~</b>	<b>~</b>	×	<b>v</b>	¥	¥
	Geometry		<b>~</b>	<b>~</b>	<b>~</b>	>	×	¥	×
	Algebra 2		~	~	×	<b>&gt;</b>	>	×	~
	Trigonometry		<b>~</b>			×		<b>~</b>	<b>~</b>
	Pre-Calculus		<b>~</b>	<b>~</b>	×	<b>v</b>		<b>~</b>	<b>~</b>
	Calculus		>	>	<b>~</b>	>		×	>
	Probability	<b>v</b>				<b>&gt;</b>			
	Statistics	<b>~</b>				>			
	SAT <sup>®</sup> Mathematics	~							

Course Name		Length		Info	D	Available Options			
		9-Week	Semester	Year	Credit Recovery	NCAA Initial-Eligibility*	Foundation Version	Diagnostic Test	Progress Test
	Physical Science		~	~	<b>&gt;</b>	<b>~</b>	<b>~</b>	<b>&gt;</b>	~
	Earth Science		~	~	<b>v</b>	¥	×	×	<b>~</b>
	Biology		~	~	<b>v</b>	¥	×	×	<b>~</b>
	Chemistry		~	~	<b>v</b>	¥	×	×	<b>~</b>
	Physics		~	~	<b>v</b>	¥			
	Astronomy	×				¥			
	Life Science		~			<b>~</b>			
	Superstars of Science	×							
ื่อ	Environmental Science		~			×			
enc	Epidemiology	<b>v</b>							
SCI.	Anatomy and Physiology		~	K	<b>~</b>	<b>~</b>			
	Natural Disasters	<b>&gt;</b>				×			
	Forensics	×				¥			
	Genetics	>				<b>~</b>			
	Stem Cells	<b>v</b>				×			
	Biotechnology	>				<b>~</b>			
	Introduction to Technological Sciences	<b>&gt;</b>							
	Sports Medicine	×							
	Sports Science	<b>&gt;</b>							
	Archeology: Detectives of the Past		~						
	Astronomy: Exploring the Universe		~						
	Biotech: Unlocking Nature's Secrets		~						
S	Criminology: Inside the Criminal Mind		~						
ectiv	Forensic Science I: Secrets of the Dead		~						
nce El	Forensic Science II: More Secrets of the Dead		~						
Sciel	Great Minds in Science: Ideas for a New Generation		~						
	Health Science I: The Whole Individual		~						
	Health Science II: Patient Care and Medical Services		~						
	Introduction to AgriScience		~						
	Veterinary Science: The Care of Animals		~						

# **High School** *eCourses*<sup>--</sup> **Options & Details**

	Course Name		Length		Info		Available Options		
			Semester	Year	Credit Recovery	NCAA Initial-Eligibility*	Foundation Version	Diagnostic Test	Progress Test
	Early World History	<b>~</b>				<ul> <li></li> </ul>		>	×
	World History		>	~	<b>v</b>	×	>	×	~
Ś	Early American History	>				>		>	>
die	American History		>	>	>	>	>	>	>
Stu	US Government		>	<	<b>&gt;</b>	>	>	>	>
<u>n</u>	World Geography		<b>&gt;</b>	×	<b>~</b>	×		<b>&gt;</b>	×
З	Macroeconomics		¥			<b>~</b>			
S	Microeconomics		<b>&gt;</b>			<ul> <li></li> </ul>			
	Psychology		<b>~</b>			×			
	Sociology		<b>~</b>			×			
	Anthropology 1: Uncovering Human Mysteries		~						
	Anthropology 2: More Human Mysteries Uncovered		×						
	Entrepreneurship 1: Starting Your Business			*					
	History of the Holocaust		<b>&gt;</b>						
	Human Geography: Our Global Identity		<b>~</b>						
tives	Intro to Women's Studies: A Personal Journey Through Film		<b>~</b>						
s Elec	Law & Order: Introduction to Legal Studies		~						
tudie	Personal Psychology 1: The Road to Self-Discovery		~						
cial S	Personal Psychology 2: Living in a Complex World		¥						
S	Philosophy: The Big Picture		<b>~</b>						
	Social Problems 1: A World in Crisis		<b>v</b>						
	Social Problems 2: Crisis, Conflicts, & Challenges		<b>~</b>						
	Sociology 1: The Study of Human Relationships		<b>v</b>						
	Sociology 2: Your Social Life		<b>~</b>						
	World Religions: Exploring Diversity		<b>v</b>						
	Spanish 1		<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>			
	Spanish 2		<b>~</b>	<b>~</b>	×	<ul> <li></li> </ul>			
Bes	Spanish 3		<b>~</b>	<b>~</b>		<b>~</b>			
na	Spanish 4		<b>&gt;</b>	<b>~</b>		<b>~</b>			
ang Bri	French 1		<b>&gt;</b>	<b>~</b>		<ul> <li></li> </ul>			
L L	French 2		<b>&gt;</b>	<b>~</b>		<ul> <li></li> </ul>			
orle	French 3		>	<b>~</b>		<b>~</b>			
Š	French 4		>	>		~			
	German 1		<b>&gt;</b>	<b>~</b>		<ul> <li></li> </ul>			
	German 2		~	<b>v</b>		<b>~</b>			

\*Foundation versions of the courses contain fewer lessons, are one level lower in difficulty, and do not meet the NCAA Initial-Eligibility requirements.

			Length		Info		
	Course Name	9-Week	Semester	Year	Credit Recovery	NCAA Initial-Eligibility	
	Career Explorations	<i>~</i>					
	Chemical Engineering	~				<b>v</b>	
	Computer Engineering	<b>~</b>				<b>v</b>	
	Electrical Engineering	<b>v</b>				<b>~</b>	
	Fitness		~				
	Health		~				
	HTML	~					
Nes	Internet Safety	~					
lectiv	Introduction to Office Applications		>	<b>v</b>			
	Introduction to OpenOffice Applications		~	¥			
	Java™	<b>v</b>					
	Life Skills		~				
	Mechanical Engineering	¥				¥	
	Music Theory		~				
	Personal Finance	¥					
	Science of Computing	¥					
	Art in World Cultures		~				
	Careers in Criminal Justice: Criminal Justice Operations 1		~				
	Cosmetology: Cutting Edge Styles		~				
	Digital Photography 1: Creating Images with Impact!		~				
	Digital Photography 2: Discovering Your Creative Potential		~				
	Early Childhood Education 1		~				
	Fashion and Interior Design		~				
	Hospitality & Tourism: Traveling the Globe		~				
	International Business: Global Commerce in the 21st Century		~				
	Introduction to Culinary Arts		~				
	Introduction to Manufacturing		~				
	Introduction to Social Media		~				
	Music Appreciation: The Enjoyment of Listening		~				
	Peer Counseling		~				
	Personal and Family Finance		~				
	Real World Parenting		~				
	Sports and Entertainment Marketing		~				
	Theater, Cinema, & Film Production		~				
	The Lord of the Rings: An Exploration of the Films & Their Literary Influences		~				

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# Middle School—English/Language Arts

#### English/ Language Arts 6



In English/Language Arts 6, students read to enhance their understanding of different genres and to enhance their own writing. Students practice the writing process in each part of the course as they plan, organize, compose, and edit four projects: a brief narrative essay about a personal hero, a piece of creative fiction, an essay analyzing a poem, and a research project. As they read the coming-of-age novel *Roll of Thunder, Hear My Cry*, by Mildred D. Taylor, students focus on the elements of fiction and examine elements of the author's craft. In a tour of folktales, students embark on a journey to South America, Africa, Asia, the Middle East, and even ancient Greece and Rome. Students are introduced to several types of poetry, learn to recognize poetic devices, evaluate the effectiveness of a poet's message, and, ultimately, compose their own poetry. As they explore nonfiction and informational texts, students build on concepts they learned in the elementary grades to develop higher-level critical thinking skills. A study of advertising and persuasive techniques helps students become more informed consumers. Students strengthen speaking and listening skills through predicting, questioning, summarizing, clarifying, and synthesizing. Students learn to work collaboratively, incorporate multimedia in their presentations, and present their findings in unique, effective ways.

**Prerequisite: None** 

>> Credit Recovery Available <<

Length: Semester/Year

#### English/ Language Arts 7



In English/Language Arts 7, students read and analyze literature from poetry to novels and folklore to myth, using what they learn to enhance their own writing. The course begins with the steps of the writing process, which includes identifying parts of speech and using them correctly and effectively. A study of writing style focuses on slang, sentence variety, and transitions. Students learn how characters, setting, and plot contribute to literary fiction as they identify and explain these components and use them creatively in their own narrative essays. Reading poetry allows students to focus on figurative and descriptive language, which they apply to writing descriptive essays. Students also learn about the themes and characteristics of myth and folklore. A study of nonfiction focuses on research and organization as students produce objective informational essays. Students learn active reading and research skills that enable them to recognize bias and the techniques of persuasion in different genres, including biographical writing, then write persuasive essays based on their own beliefs or opinions.

Prerequisite: None

>> Credit Recovery Available <<

Length: Semester/Year





In English/Language Arts 8, students continue their exploration of various genres, using active reading techniques such as note-taking and drawing conclusions from texts. Students review the steps of the writing process, making connections between the stages of writing, the genre they are studying, and a well-formed final product. To prepare students for writing narrative essays, lessons focus on plot, theme, and historical setting. Writing reflective and persuasive essays based on their own thoughts and ideas allows students to demonstrate their individuality. Solid research and understanding of organizational methods and visual features provide the foundation for writing informational essays. After improving their ability to recognize biased language, students write persuasive essays to express their own opinions. Students then look at the unique characteristics of poetry, myth, and folklore, and discover the conventions of playwriting and how drama employs the elements of fiction.

Prerequisite: None

>> Credit Recovery Available <<

# **Middle School—Mathematics**

Math 6



In Math 6, each skill provides a stepping stone to the next. Students learn how to find the prime factors of composite numbers, then use this ability to work with fractions. They use ratios and rates in a number of applications, including converting between English and metric measurements, determining unit rates, and finding unit prices. To build a foundation for learning algebra, students study the properties of addition and multiplication and the order of operations. Students then use these concepts as they write, evaluate, and factor algebraic expressions. After they learn to solve single-variable one- and two-step equations and inequalities, students extend their knowledge by graphing the solutions on number lines and the coordinate plane. The exploration of two dimensions continues as students work with plane polygons, classify shapes, and solve for shapes' perimeters and areas. Students learn to transform two-dimensional figures by translating, rotating, and reflecting both figures and graphs of equations, then move on to solid figures. Finally, students delve into statistics as they identify, interpret, and construct various data; solve for and interpret measures of center including mean, median, and mode; and use those measures to analyze data and construct appropriate data displays, which they can apply to a wide range of situations in other subject areas.

Prerequisite: None >>> Credit Recovery Available <<< Length: Semester/Year





Math 7 teaches skills essential to adult life and lays the groundwork for future mathematics classes. Students learn to apply their work with rational numbers and integers to everyday situations. Students convert words to expressions and vice versa, using equations and inequalities as problem-solving tools. They compute tax, percentage of error, commission, and interest by using rates, ratios, and proportions; graph ordered pairs; and graph and write linear equations. Their work with simple figures—triangles, angles, circles, quadrilaterals, and polygons—focuses on finding areas and perimeters. Students then move on to scale drawings and composite figures composed of simple figures, and compute the volumes and surface areas of solids including prisms, cylinders, pyramids, cones, and spheres. Students collect data and use graphs, charts, and diagrams to read, interpret, and display the data—and they also learn how graphs can be misleading. Students apply the study of sampling and populations to applications involving probability, likely and unlikely outcomes, permutations, combinations, and compound events. Students learn to represent these concepts by using Venn diagrams and charts, tools they will encounter in other courses.

Prerequisite: None

>>> Credit Recovery Available <<<

Length: Semester/Year

Math 8



Math 8 helps students see the power of mathematics in everyday life. The course begins with a review of percentages and proportions, applying these concepts to conversion factors and emphasizing English and metric measurements. Work with linear equations includes computing rates of change, finding intercepts, graphing linear functions, and describing the action of a line. Number patterns and sequences foster a study of arithmetic and geometric means as students learn to find missing terms in sequences. An investigation of the Cartesian plane teaches students how to work with scale drawings, dilations, and graphs. Students learn about the properties of triangles, the Pythagorean theorem, and the properties of parallel lines cut by a transversal. With pie charts, bar graphs, histograms, scatter plots and other linear models, students explore probability and make predictions and correlations. Students apply the concepts of independent and dependent events, odds, combinations, permutations, and factorials to situations from playing cards to determining the number of different outfits they have in their closets.

Prerequisite: None	>>> Credit Recovery Available <<<	Length: Semester/Year
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Middle School Algebra



How do you write, simplify, and solve equations? How can you display data so it can be easily interpreted and understood? In Algebra, students learn how to translate phrases into expressions, and sentences into equations and inequalities, expressing them in their simplest forms. Students find solutions to equations by graphing them on number lines or on the coordinate plane. Students learn the value of finding the best tool for the job as they acquire different strategies to use in various situations, such as finding the slope of a line, solving a system of equations or inequalities, or factoring polynomials. Building on this knowledge, students apply transformations to polynomial functions, explore inverses and one-to-one functions, and examine exponential and logarithmic functions. Work in statistics includes organizing and analyzing data; making stem-and-leaf plots; finding mean, mode, and median; making box-and-whisker plots; and recognizing misleading graphs. At the completion of this course, students are prepared for additional math courses in middle and high school.

# Middle School—Science

#### Science 6



Scientists make exciting observations and learn amazing facts about the world. Harnessing students' natural curiosity and ability to observe, Science 6 surveys the physical and life sciences through engaging, interactive activities and media-rich content. Students begin by surveying the branches of science, noting important milestones in the development of scientific study, and discovering the contributions of some influential scientists. They examine the matter that makes up the world, the laws that govern the movement of matter, and how matter is affected by contact and noncontact forces. Students investigate energy, its sources, and methods of energy generation and transfer. As they examine the structure of Earth, students learn about natural resources and the impact of human populations on the balance of nature. Students also study weather, wind, storm formation, and ways data is used to predict the weather. Students begin learning about life science through the discoveries Robert Hooke made using his microscope. The vital relationship between structure and function is examined as students learn about the components of cells and the organ systems of the human body. The study of living things continues as students learn about the major groups of organisms and scientists who contributed to current knowledge about each group. The relationships among these groups, called kingdoms, and among living and nonliving things are revealed as students learn about biogeochemical cycles. The ecology section completing the course discusses water quality, conservation efforts, and recycling.

**Prerequisite: None** 

>>> Credit Recovery Available <<<

Length: Semester/Year

#### Science 7



Science 7 brings together some of the most fascinating sciences—general, physical, earth, and life sciences—essential for investigating the world. After learning common measurement systems and the essentials of lab safety, students are ready to apply the scientific method to everyday situations such as a broken lamp or a hungry dog. Students learn about matter and energy, and about electromagnetic waves and the electromagnetic spectrum, focusing on the properties of visible light. Earth itself becomes the focus as students study the different geologic eras in Earth's history, the parts of the planet, and phenomena including earthquakes and volcanoes. Delving into Earth's past, students examine the fossil record and discover the clues it provides about the histories of numerous species and how they adapted to their environments. Students learn how species change over time through mutation and natural selection. Finally, students explore food webs, the roles of different organisms in an ecosystem, and the reasons that preserving Earth's limited natural resources through conservation efforts is imperative.

Prerequisite: None

>>> Credit Recovery Available <<<

Length: Semester/Year

#### Science 8



Science 8 focuses on the smallest structures—the atoms that make up the world and the cells that make up the body and the largest systems—the cycles of the natural world, the interaction of energy and matter, classical mechanics, and the bodies that make up the universe. Beginning with classification systems, students learn about the elements and the structure of atoms. Students apply what they learn about temperature scales, the difference between temperature and heat, and chemical reactions to the study of energy and ways matter can change. This understanding of chemistry helps students in their next phase of study: cell function, the life-giving functions of photosynthesis and respiration, the biology of their own bodies, and the genetics that make each living being unique. The focus widens again as students explore classical mechanics: Newton's Three Laws of Motion and the Law of Universal Gravitation. Students then apply classical mechanics to planetary motion, the effects of the Moon, travel beyond Earth, and the most up-todate discoveries about the universe.

Prerequisite: None

>>> Credit Recovery Available <<<

# **Middle School—Social Studies**

#### **Social Studies 6**



Making sense of the unique and fascinating places in the world requires a broad range of knowledge and skills. Students explore how Earth's geography has affected human life and culture as they learn about the development of early civilizations in Asia and the Mediterranean. Students examine the great religious traditions born during this time, witness the growth of dynasties in the Far East, and learn about the ideas that spawned the Renaissance. As the world became caught up in the excitement of the Age of Exploration, the Americas were "discovered," although vibrant and thriving civilizations had existed there for thousands of years. Students learn about the struggles of these native civilizations, the slaves who were brought to build a new nation, and independence movements in the western world. The issues addressing modern nations include trade, migration, urbanization, and human rights. In an exploration of recent history, students learn about dictators and witness revolutions in Europe, the Middle East, and the Americas. In the final section of the course, students study the impact of globalization and the technology driving it.

**Prerequisite: None** 

>>> Credit Recovery Available <<<

Length: Semester/Year

#### **Social Studies 7**



History, government, economics, sociology, geography, and anthropology all come together to show how modern culture arose from ancient and classical civilizations. Beginning with the New Kingdom of Egypt, students witness the growth of ancient civilizations into the classical empires that gave rise to medieval Europe. They discover how feudal Europe moved toward the Renaissance, and how its ideals of humanism and constitutional government ignited the scientific revolution and the Protestant Reformation. Students study the development of spirituality in the Middle East, the growth of dynasties in the Far East, and the formation of Mesoamerican civilization. As students learn about the development of modern nations and their quest for overseas colonies, they see how the competition for colonies and extreme nationalism led to international conflicts, including the Seven Years War and the Cold War. Students discover how the American political identity has evolved through developments including the Industrial Revolution, the labor and progressive movements, the struggle for civil rights, the economics of a modern society, and the dawn of the Information Age.

**Prerequisite: None** 

>>> Credit Recovery Available <<<

Length: Semester/Year

#### **Social Studies 8**



In Grade 8 Social Studies, students focus on the history of North America and, in particular, the history of the United States. Before Europeans knew that North America existed, indigenous civilizations thrived throughout the continent. Students learn how colonial life led to early attempts at self-government and how European influence continues to this day. As they witness the expansion of US borders, students discover how the desire for land and resources led to the removal of native populations, wars with neighbors, and annexations. Students see the impact of civil war and witness the struggle of slavery and America's emergence as an industrial powerhouse. In their study of the twentieth century, students trace the reasons for and outcomes of the civil rights movement and consider the role of the United States as a world power.

**Prerequisite: None** 

>>> Credit Recovery Available <<<

# Middle School—Electives

#### Art History and Appreciation



Where do artists find their inspiration? How can you tell a Rembrandt from a Renoir? Art History and Appreciation surveys artwork and architecture from different periods in human history. Students learn how artists use their abilities to observe and interpret reality and create unique artistic styles and works. Part 1 focuses on the art and architecture in Europe, Africa, and the Americas, while Part 2 moves east to Asia and Oceania. In each part of the course, students note the development of different art movements, the variation in artistic techniques, and the influence of significant artists and designers. Lessons explain the tools, skills, and techniques artists use to create their works. Students also learn how to differentiate between art movements in significant periods of history. At the end of this course, students can recognize different artistic styles, movements, and techniques, and identify specific pieces of artwork by period and origin.

**Prerequisite: None** 

Length: Semester

Health and Fitness



What does it mean to be healthy? What are the steps for creating or improving a healthy lifestyle? This course helps students take charge of their own well-being by providing up-to-date information about physical activity, nutrition, and overall health. Students learn the importance of setting goals, recognizing peer pressure, making good decisions, and resolving conflicts. Students learn about the benefits of exercise and physical activity, and how to avoid unhealthy behaviors. Activities are designed to help students understand nutrition, analyze food labels, and develop an appropriate exercise plan. Students learn how physical activity affects different body systems and about key exercise concepts including cross-training, overload, and flexibility. Students become more familiar with the systems of their bodies, learn about common ailments, and examine the importance of self-esteem and emotional well-being in creating overall health.

**Prerequisite: None** 

Length: Semester

### **Internet Safety**



Why take safety measures when using the Internet? What are the differences between interacting in the real world and interacting in a virtual world? In Internet Safety, students think critically about what constitutes appropriate behavior online and expand the range of their online interactions. This course begins by identifying safety precautions for communicating online, sharing content responsibly, keeping accounts safe, and preventing identify theft and viruses. Students learn to identify appropriate online behavior and compare and contrast real and virtual citizenship. The course defines cyberbullying and encourages students to consider its consequences, and to report those who engage in the behavior. Lessons also include explanations of phishing, plagiarism, copyright terms, and fair use. The course ends by explaining how to recognize quality websites for research, safely use social networking sites, and buy and sell items online.

#### **Prerequisite: None**

Length: 9-week

#### Music Theory and Appreciation



Have you ever wondered why some notes sound great together and others don't? Or how musicians translate the symbols of sheet music into the music you hear? Music theory—the study of how music works—is essential to any aspiring composer or performer. Students develop their knowledge through listening exercises, drawing and identifying notation, creating basic compositions, and analyzing music samples. In the second part of the course, students focus on music appreciation as they survey the development of music, beginning in ancient Greece and ending with modern western music. Students learn how to distinguish music from different periods and describe how music relates to its historical, cultural, and social context. By the completion of this course, students have a strong foundational understanding of music, preparing them to learn how to play an instrument or continue to more advanced music studies.

**Prerequisite: None** 

# Middle School—Electives, continued

### Introduction to OpenOffice Applications



How can a word processing program help you reduce errors in your writing? What are some ways to make in-class presentations more interesting and interactive? In Introduction to OpenOffice Applications, students investigate OpenOffice Writer and OpenOffice Impress, the OpenOffice.org<sup>™</sup> word processing and presentation applications, and discover the benefits of using the OpenOffice environment. With OpenOffice Writer, students create, save, and customize Writer documents to complete class assignments and perform real-world tasks. Students learn document management, how to edit and proofread documents, and how to change the appearance of text. By producing and managing presentations in OpenOffice Impress, students learn how to create custom templates and handouts and display data effectively. Students even learn how to add sounds, animations, and interactive elements to their presentations. After completing this course, students are prepared to use Write and Impress to complete academic assignments.

**Prerequisite: None** 

Length: Semester

Length: 9-week

Length: 9-week

Length: Semester

Length: Semester

#### **Problem Solving**



This course provides students with a fundamental overview of problem solving. Students learn George Pólya's four steps to problem solving and identify the best strategies for solving particular problems, such as determining how long it will take to save enough money for a new video-game system, how to choose the best transportation option, or what to do when the computer crashes and a term paper is due. The course also covers advanced concepts such as finding patterns and using inductive reasoning—even using algebraic techniques for solving real-world problems. After completing this course, students will have the confidence to tackle any type of problem, from a challenging math activity to losing a set of keys.

**Prerequisite: None** 

**Study Skills** 



Journalism

Why are study skills important? What methods and techniques can students use to support studying, limit distractions, and prevent procrastination? The Study Skills course helps students develop a program to manage their study time, enhance their concentration, and accomplish their goals. Topics include identifying causes of study-related stress; techniques for relieving stress; the pros and cons of studying alone and in study groups; and improving reading comprehension, reading fluency, writing, and note-taking. The course concludes with strategies for preparing for tests and reducing test anxiety, leaving students well-prepared to meet their academic challenges.

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Who? What? When? Where? 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.

**Prerequisite: None** 

Career Exploration



What career are you best suited for? In this course, students will explore career options in many different fields, including business, health science, public administration, the arts, and information technology.

#### Prerequisite: None

Photography: Drawing with Light



Students see photographs every day on television, on the Internet, and in magazines and newspapers. What makes a great photograph? How did the artist capture a story? What makes a great picture? What careers are available in photography? In this course, students learn and apply fundamental skills to take photographs of animals, people, and landscapes. Students gain an understanding of how photography can be a means of documentation or a form of high art. Students examine photographic careers and explore self-reflection to progress their creative growth as they develop a photographic portfolio. This course helps students select subjects, take photographs, and print and display memories.

**Prerequisite: None** 

# High School—English

#### English 1



How do writers and speakers effectively communicate to their audiences? When is it appropriate to use formal or informal English? When writing or speaking, why are smooth transitions from one idea, event, or concept to another important? Learning to become an effective communicator includes knowing how to receive, evaluate, comprehend, and respond to verbal and nonverbal communication. Students learn effective communication in the context of fiction and nonfiction writing as well as in one-on-one and group discussions. Students strengthen their writing skills by varying syntax and sentence types, and through the correct use of colons, semicolons, and conjunctive adverbs. Students learn to keep their audience, task, and purpose in mind while maintaining a formal style and objective tone, and use style manuals and reference materials to appropriately cite sources and ensure that their writing meets the conventions of formal English.

**Prerequisite: None** 

**Foundation Course Available** 

Length: Semester/Year

World Literature 1 (Grade 9)



By examining great works of literature from around the world, students develop the skills to analyze and respond to various forms of literature, including essays, poems, short stories, and dramas. The course begins by exploring some highly influential ancient pieces, and works its way forward to current works of literature. Throughout this process, students see that although language and customs change, human beings today have many of the same experiences, ideas, and feelings that they had thousands of years ago. With that knowledge, students can relate to and learn from ancient and modern authors, and can then share what they learn with those around them. Students have the opportunity to practice different skills, including reading and analysis, speaking and listening, grammar, writing, and vocabulary development. Students also learn how to use various tools for review and to reinforce understanding.

**Prerequisite: None** 

English 2

World Literature 2



How can the written language be changed according to context, audience, and purpose? In this course, students explore the evolution of language in fiction and nonfiction, assess rhetorical and narrative techniques, identify and refine claims and counterclaims, and ask and answer questions to aid in their research. Students also evaluate and employ vocabulary and comprehension strategies to determine the literal, figurative, and connotative meanings of technical and content-area words and phrases.

**Prerequisite: None Foundation Course Available** 

Length: Semester/Year

Length: Semester/Year

Grade 10



In World Literature 2, students continue to expand their knowledge of great works of world literature from ancient to modern times. Students study various literary forms including drama, essay, poetry, folktale, epic, and biography. Through their study, students learn how to analyze and respond to literature in greater depth and gain a clearer understanding of how literature reflects changes in language and customs. Students also work to improve their writing skills through reading and analysis, speaking and listening, and studying grammar and vocabulary. Students learn to use various tools for review and understanding. At the end of this course, students have a knowledge of and appreciation for works of world literature.

**Prerequisite: None** 

Length: Semester/Year

#### English 3



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

**Prerequisite: None** 

**Foundation Course Available** 

# High School—English, continued



Through a survey of American literature, students understand and appreciate American history to its fullest. Literature comes alive with an infusion of history as students read, analyze, and interpret a variety of genres, such as poetry, drama, folktale, and biography. Students are challenged to interpret each piece of literature soundly and handle literary techniques skillfully. At the end of this course, students have improved their vocabulary, grammar, usage, sentence structure, diction, punctuation, reading, speaking, listening, and writing skills.

Prerequisite: None

Length: Semester/Year

**English 4** 



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

**Prerequisite: None** 

Foundation Course Available

Length: Semester/Year





British literature has had an influence on American culture and its variety of literary forms. Through an examination of British literature, students become active readers; critical and logical thinkers; and clear, concise writers. Students learn a variety of strategies to develop the reading and writing skills necessary for success in any discipline. Each unit follows a structure designed to enhance existing reading, comprehension, writing, speaking, and listening skills, while at the same time using British literature to develop students' vocabulary. The weekly process includes written assignments, organizational exercises, and oral presentations in podcast format. At the end of this course, students gain an understanding of British literature and increase their reading, comprehension, speaking, listening, and writing skills.

**Prerequisite: None** 

Length: Semester/Year



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

#### **Prerequisite: None**

Length: 9-week

Research Paper Writing



This mini-course is available in two different versions – grade 11 and grade 12. Students learn how to write a research paper by studying and practicing each step of the research writing process. Students begin by learning how to choose an appropriate topic for an expository research paper, and then move on to the research process. The process of researching is broken down in detail. Students learn how to find and evaluate sources, take notes, and find and record bibliographic information. During the writing process, students create an outline for their paper, write a first draft, and revise and edit their papers to create a polished final project. The course ends with a reflection assignment in which the students evaluate the research process and their work. Through this course, students learn how to write an effective expository research paper.

**Prerequisite: None** 

# **High School—English Electives**

#### **Creative Writing**



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

**Prerequisite: None** 

**Length: Semester** 

Gothic Literature: Monster Stories



From vampires to ghosts, frightening creatures have influenced fiction writers for hundreds of years. This course will focus on the major themes found in the Gothic literature that arose during the eighteenth century and demonstrate how writers produce psychological thrills for readers. Terror versus horror, the influence of the supernatural, and the difference between good and evil are just a few of the themes presented. By the time students have completed this course, they will have gained an understanding of and an appreciation for the complex nature of dark fiction.

**Prerequisite: None** 

Length: Semester

#### Mythology & Folklore: Legendary Tales



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

**Prerequisite: None** 

### **Public Speaking**



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

**Prerequisite: None** 

**Length: Semester** 

# **High School—Mathematics**

### Common Core Algebra 1



What are algebraic expressions? How are they structured, and how can they be combined to create equations and inequalities? How do you know that the solutions you find are correct? In Algebra 1, students create expressions from verbal descriptions, manipulate and transform them, and create visual models. Requiring students to explain each step helps them understand mathematical processes. Exploring functions, sequences, and their corresponding graphs helps students determine the best ways to represent each. Students examine functions graphically, numerically, symbolically, and verbally, and learn how to translate between these different forms. Students' depth of understanding increases as they complete proofs and describe data, fitting functions to their data. Students then extend their knowledge of linear and exponential relationships and apply their new understanding to create quadratic and exponential expressions as models of real-life phenomena.

**Prerequisite: None** 

#### Common Core Geometry

Common Core Algebra 2



What are the different ways a figure can be transformed? What is the difference between similarity and congruence? In Geometry, students formulate mathematical arguments and create geometric constructions. Working with triangle construction to prove theorems, students employ their reasoning abilities to show similarity and congruence, and use trigonometric ratios to find missing measures in triangles. Solving problems concerning three-dimensional figures gives students the opportunity to examine formulas. Students apply their knowledge of geometric shapes by using measures and properties to describe real-life objects, and connect algebra to geometry by graphing figures on the coordinate plane. Students then move to circles, exploring their properties and theorems. Next is the study of probability, in which students interpret data by using independence and conditional probability, and apply the rules of probability to determine compound events and evaluate outcomes of decisions.

#### Prerequisite: Common Core Algebra 1

#### Length: Semester/Year

Length: Semester/Year

Extending their knowledge of linear, exponential, and quadratic functions to polynomial, rational, and radical functions, students in Algebra 2 model situations and solve equations, discovering how the rules they learned in arithmetic continue to apply as they work with polynomials. Students focus on the properties and factors of polynomials, learning to find the zeros of a polynomial and graph it as a function. Students use complex numbers to solve quadratic equations and exponential expressions, and learn how to rewrite rational expressions in different forms and solve simple rational and radical equations. Students are asked to explain how the intersection of two graphs defines a solution. The trigonometric concepts students learned previously are expanded as they focus on the unit circle and apply these concepts to models of periodic phenomena. Students then extend their knowledge of function families to model functions defined as square roots or cube roots, as well as piecewise-defined functions. A detailed look at exponential and logarithmic functions is applied to showing intercepts and end behavior. Students collect data through sample surveys, experiments, and simulations, and learn about the role of randomness in this process. Quantitative reasoning is emphasized as students compare the differences between sample surveys, experiments, and observations, and explain how randomization relates to each one. Finally, students use probability to evaluate the outcomes of decisions.

#### Prerequisite: Common Core Geometry

### Common Core Mathematics 1



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

**Prerequisite: None** 

Length: Semester/Year

#### Common Core Mathematics 2



Mathematics 2 focuses on quadratic expressions, equations, and functions and compares their characteristics and behavior to previously learned linear and exponential relationships. The course covers real and complex numbers to give students the background they need to solve all forms of quadratic equations. Students explore the structure of expressions and rewrite them to highlight pieces of the relationship. Creating and solving equations and inequalities leads to solving systems of equations involving quadratic or exponential equations. Students compute and interpret theoretical and experimental probabilities, making informed decisions as they apply their knowledge of probability. Similarity transformations give students another perspective on similarity and allow them to prove related theorems. Students prove and use geometric theorems and learn about right triangles and their related trigonometry. They then move to theorems of circles, study ways to find arc lengths and areas of sectors, and to write equations for circles and parabolas. Finally, students examine area, circumference, and volume formulas for different geometric forms.

#### Prerequisite: Common Core Mathematics 1

Length: Semester/Year

Length: Semester/Year

#### Common Core Mathematics 3



Mathematics 3 challenges students to gather and apply all of the concepts they have learned in previous courses. Students apply their knowledge of probability and statistics to both given data and data they collect through sample surveys, experiments, and simulations. Students look at polynomials and operations on them, examining the relationship between zeros and factors of polynomials, and use polynomial identities to solve various problems. Students learn that the arithmetic of rational expressions follows the same rules as arithmetic with rational numbers. Students deepen their understanding of trigonometry as they develop and apply the laws of sines and cosines to find missing measures of right and other triangles, determine how many triangles can be formed from a set of side measures, and use the unit circle and model periodic phenomena by using trigonometric functions. Pulling together all they have learned about function families, students analyze functions, build functions to model relationships, and build new functions from existing functions. They can also construct and compare linear, quadratic, and exponential models; use geometric shapes, their measures, and their properties to describe objects; and apply geometric concepts in modeling situations.

#### Prerequisite: Common Core Mathematics 2

### Common Core Mathematics 4



Mathematics 4 brings together all of the mathematical concepts students have learned up to this point. In this capstone course, students perform operations with and find conjugates of complex numbers and represent them on the complex plane. Work with vectors includes recognizing the magnitude and direction of vectors and performing operations on vectors. Students also represent and manipulate data in and perform operations on matrices, applying the knowledge they gain as they represent and solve systems of linear equations. Students then analyze linear and exponential functions to show intercepts and end behavior, and delve into trigonometric functions showing period, midline, and amplitude. The course then moves to inverse functions, in which students find inverse functions and produce invertible functions from noninvertible functions by limiting the domain. Special triangles form the basis for students to geometrically determine values for sine, cosine, and tangent. Students also learn how to prove and utilize the addition and subtraction formulas for sine, cosine, and tangent and derive the equations of ellipses and hyperbolas. Cavalieri's principle is used to explain the formulas for the volume of a sphere and other solid figures. Finally, students calculate expected values and employ them to solve problems, and use probability to evaluate outcomes of decisions.

Prerequisite: Common Core Algebra 2 or Common Core Mathematics 3

#### **General Math**



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

**Prerequisite: None** 

Length: Semester/Year

## Pre-Algebra



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

Prerequisite: None

Foundation Course Available

Length: Semester/Year

## Algebra 1



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

Prerequisite: None

Foundation Course Available

Length: Semester/Year

#### Geometry



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

Prerequisite: Algebra 1

Foundation Course Available

# Algebra 2

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

Prerequisite: Algebra 1	Foundation Course Available	Length: Semester/Year
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### Trigonometry



This course explores trigonometric functions and practical applications of trigonometry, such as solving real-life problems through engineering, physics, construction, and design. Students investigate graphs, linear functions, quadratic functions, trigonometric functions, analytical trigonometry, analytical geometry, vectors, and advanced functions. Students develop critical-thinking skills and learn problem-solving techniques to help them succeed in understanding and applying trigonometric principles. By the end of this course, students gain knowledge of and appreciation for trigonometry and problem-solving that will prepare them for future mathematics courses.

Prerequisite: Algebra 2

Length: Semester

### **Pre-Calculus**



Calculus

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

#### Prerequisite: Algebra 2

Length: Semester/Year

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

Also available to students is a 45-lesson course designed to prepare them for advanced standardized assessments in calculus. Units 1 and 2 provide a review of derivatives and a number of application problems. Students take the first and second derivatives of functions and work with graphs, examining domain, range, extrema, and concavity as they relate to differentiation. Students look at different types of limits. As they review integration, students find areas under curves, areas between curves, and volumes of solids, and apply integration to physics problems. Unit 3 examines integration by parts, partial fractions, and improper integrals. Students also complete problems by working with polar coordinates. Unit 4 focuses on specific series and sequences as they relate to previously learned calculus concepts.

**Prerequisite: Pre-Calculus** 

#### **Probability**



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

**Prerequisite: None** 

Length: 9-week

Length: 9-week

### Statistics



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

Prerequisite: None

#### SAT<sup>®</sup> Mathematics



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

**Prerequisite: None** 

Length: 9-week

# **High School—Science**

#### **Physical Science**

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

Prerequisite: None	Foundation Course Available	Length: Semester/Year
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#### **Earth Science**



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

Prerequisite: None	Foundation Course Available	Length: Semester/Year
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### Biology



The science of Biology is large, complex, and constantly changing. This course provides students with a broad and interactive experience covering the main topics of biological science. Topics range from cell reproduction to the diversity of life. Students also learn about the chemical components of life, the process of energy conversion, and life's functions. The course explores genetics and evolution, incorporating the latest scientific research. Finally, the course covers ecology to raise students' awareness of the many challenges and opportunities in the modern biological world. Throughout the course, students complete lab activities that reinforce the material and provide the opportunity to apply their knowledge through interactive experiments and activities.

Prerequisite: None	Foundation Course Available	Length: Semester/Year
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### Chemistry



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

Prerequisite: Algebra 1

Foundation Course Available

### Physics



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

Prerequisite: Algebra 2

Length: Semester/Year

Length: 9-week

#### Astronomy



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

#### **Prerequisite: None**

#### Life Science



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

#### **Prerequisite: None**

#### Superstars of Science



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

**Prerequisite: None** 

Length: 9-week

#### Environmental Science



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

Prerequisite: None

Length: Semester

Length: 9-week

#### **Epidemiology**



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

#### **Prerequisite: None**

#### Anatomy and Physiology



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

**Prerequisite: Biology** 

Length: Semester/Year

#### Natural Disasters



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

**Prerequisite: None** 

#### **Forensics**



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

**Prerequisite: None** 

Genetics



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

Prerequisite: None

**Prerequisite: None** 

#### Stem Cells



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

### Biotechnology



Introduction to **Technological** 

Sciences

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

**Prerequisite: None** 

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

**Prerequisite: None** 

Length: 9-week

#### Length: 9-week

Length: 9-week

Length: 9-week

Length: 9-week

#### **Sports Medicine**



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

**Prerequisite: None** 

Length: 9-week

#### **Sports Science**



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

**Prerequisite: None** 

Length: 9-week

# **High School—Science Electives**



# High School—Science Electives, continued



# **High School—Social Studies**

#### Early World History



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

**Prerequisite: None** 

**World History** 



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

Prerequisite: None

Foundation Course Available

Length: Semester/Year

Length: 9-week

Length: 9-week





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

**Prerequisite: None** 

American History



This course takes students on a journey through the key events that have shaped America as a nation, from the end of the Civil War in 1865 to the height of the Cold War in 1980. The journey begins with Reconstruction, a period of great transition and opportunity to heal a broken nation. Students witness the great migration westward and explore how the Industrial Revolution and waves of immigration fueled the flames of the American spirit. The course details the challenges America faced and how equality was elusive for populations of Native Americans, African Americans, immigrants, and women. Students learn how the core values of the founding fathers eventually prevailed and led to the women's suffrage and civil rights movements. The course closely examines the impact of war, with units covering the role of the United States in World War I, Word War II, the Korean War, and the Vietnam War. Throughout their journey, students encounter the great political, industrial, military, and human rights leaders who shaped America into a beacon of hope.

**Prerequisite: None** 

**Foundation Course Available** 

# High School—Social Studies, continued



# **High School—Social Studies Electives**

The aim of anthropology is to use a broad approach to gain an understanding of the past, present, and future, and,

Anthropology 1: Uncovering

Human in addition, address the problems humans face. This course will explore the evolution, similarity, and diversity of **Mysteries** humankind through time. It will look at how humans have evolved from a biologically and culturally weak species to one that has the ability to cause catastrophic change. Exciting online video journeys to different areas are just one of the powerful learning tools utilized in this course. **Prerequisite: None** Anthropology Anthropology has helped people better understand cultures around the world and those of different times. This 2: More Human course continues the study of global cultures and the ways that humans have made sense of their world. Students will Mysteries examine some of the ways that cultures have understood and given meaning to different stages of life and death. The Uncovered course will also examine the creation of art within cultures and examine how cultures evolve and change over time. Finally, students will apply the concepts and insights learned from the study of anthropology to several cultures found in the world today. Prerequisite: Anthropology 1 Entrepreneurship 1: Starting Your Do you dream of owning your own business? This course can give you a head start in learning about what you'll need to **Business** own and operate a successful business. Students will explore creating a business plan, financing a business, and pricing products and services. **Prerequisite: None** History of the Holocaust education requires a comprehensive study of not only times, dates, and places, but also the motivation and Holocaust ideology that allowed these events to occur. In this course, students will study the history of anti-Semitism; the rise of the Nazi party; and the Holocaust, from its beginnings through liberation and the aftermath of the tragedy. The study of the Holocaust is a multi-disciplinary one, integrating world history, geography, American history, and civics. Through this in-depth, semester-long study of the Holocaust, students will gain an understanding of the ramifications of prejudice and indifference, examine how a government can foster terror, and see evidence of the kindness and humanity that exist even in the worst times. **Prerequisite: None** Human **Geography: Our** How do language, religion, and landscape affect the physical environment? How do geography, weather, and location **Global Identity** affect customs and lifestyle? Students will explore the diverse ways in which people affect the world around them and how they are affected by their surroundings. Students will discover how ideas spread and cultures form, and learn how beliefs and architecture are part of a larger cultural context. In addition to introducing students to the field of Human Geography, this course will teach students how to analyze humans and their environments. **Prerequisite: None** Intro to Women's Studies: A **Personal Journey** This course examines the experiences of women and how those experiences are portrayed in film. Students will Through Film examine the changing roles of women in society as well as the unique ways that film can be used to communicate ideas. **Prerequisite: None** 

Length: Semester

**Length: Semester** 

Length: Year

Length: Semester

# High School—Social Studies Electives, continued

#### Law & Order: Introduction to Legal Studies



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

Self-knowledge is the key to self-improvement. More than 800,000 high school students take psychology classes each

year to learn more about themselves and others. Students will study the stages of development including infancy,

childhood, and adolescence. The course also covers perception and states of consciousness. Online psychology

Enrich the quality of your life by learning to understand the actions of others! Topics include the study of memory,

experiments in which students learn about their behavior are featured as part of this course.

**Prerequisite: None** 

**Prerequisite: None** 

**Length: Semester** 

**Length: Semester** 

Length: Semester

Personal Psychology 1: The Road to Self-Discovery



Personal Psychology 2: Living in a Complex World



Philosophy: The Big Picture



Social Problems 1: A World in Crisis



Social Problems 2: Crisis, Conflicts, & Challenges



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

intelligence, emotion, health, stress, and personality. This courses features exciting online psychology experiments involving the world around you.

Prerequisite: Personal Psychology 1

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

Students will become aware of the challenges faced by social groups and learn about the complex relationship among

societies, governments, and individuals. Each unit focuses on a particular area of concern, often within a global context, and examines possible solutions at both the individual and structural levels. Students will not only learn more about how social problems affect them personally, but begin to develop the skills necessary to help make a difference in their

Prerequisite: None

communities and in the world.

**Prerequisite: None** 

Length: Semester

# High School—Social Studies Electives, continued

#### Sociology 1: The Study of Human Relationships



The world is becoming more complex. How do your beliefs, values, and behavior affect the people around you and the world as a whole? This course will examine social problems in this increasingly connected world, and discuss how human relationships can strongly influence and impact individuals' lives. Exciting online video journeys to different regions are an important component of this relevant and engaging course.

**Prerequisite: None** 

Length: Semester

Length: Semester

Sociology 2: Your Social Life



World Religions: Exploring Diversity



Sociology is the study of people, social life, and society. The development of a sociological imagination will enable students to examine the ways that society shapes human actions and beliefs, and how such actions and beliefs shape society. Exciting online video journeys are also presented in the course.

Prerequisite: Sociology 1

Throughout the ages, religious thought has had a role in shaping the political, social, and cultural aspects of societies. This course focuses on several of the religions that have played a role in human history, including Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism, Shintoism, and Taoism. Students will trace the major developments in these religions and explore their relationships with social institutions and culture. The course will also discuss some of the similarities and differences among the major religions.

Prerequisite: None

# **High School—World Languages**

### Spanish 1



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

#### **Prerequisite: None**

Length: Semester/Year

### Spanish 2



In Spanish 2, students are immersed in the Spanish language and in the cultural aspects of Spanish-speaking countries. Students build on what they learned in Spanish 1, with a study of Spanish grammar and an emphasis on increasing their skills in listening, writing, reading, and speaking in Spanish. At the end of this course, in addition to improving their Spanish language skills, students have a knowledge of and appreciation for the cultures of Spanish-speaking countries, including the events and people that have impacted the language.

### Spanish 3



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

Prerequisite: Spanish 2

**Prerequisite: Spanish 1** 

#### Spanish 4



French 1

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

Prerequisite: Spanish 3

French 1 is a comprehensive and engaging introduction to French language and culture. After mastering the French alphabet and numbers, students study French culture, events, and people. By the end of the course, students have a foundation in the study of French, are able to engage in French conversation, and have built a solid foundation for further French language study.

Prerequisite: None



In French 2, students continue their virtual tour through France and other French-speaking countries and regions. This second-level French course takes a historical perspective in teaching the language, covering historical events and historical figures. By the end of this course, students have gained a deeper knowledge of and appreciation for the French culture and language.

Prerequisite: French 1

Length: Semester/Year

Length: Semester/Year

Length: Semester/Year

Length: Semester/Year

# High School—World Languages, continued

#### French 3



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

Prerequisite: French 2

**Prerequisite: French 3** 

Length: Semester/Year

#### French 4



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

# German 1

German 1 is a comprehensive and engaging look at the German language and culture and focuses on the most essential information needed to communicate in German. After mastering the German alphabet and numbers, students study German culture, events, and people. By the end of the course, students have a foundation in the study of German and can engage in conversation in German.

#### Prerequisite: None

#### Length: Semester/Year

Length: Semester/Year

#### German 2



Building on the content learned in German 1, students are immersed in the language, while learning cultural aspects of German-speaking countries. The course emphasizes increasing students' skills in understanding spoken German, and writing, reading, and speaking in German. German 2 provides a comprehensive review of German grammar while improving students' vocabulary skills. At the end of this course, students have a knowledge of and appreciation for the German people and language.

Prerequisite: German 1

# **High School—Electives**

### Career Explorations



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

**Prerequisite: None** 

Length: 9-week

Length: 9-week

Length: 9-week

Length: 9-week

### Chemical Engineering



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

**Prerequisite: None** 

Computer Engineering



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

**Prerequisite: None** 

Electrical Engineering



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

In this introduction to electrical engineering, students learn about electrical engineering concepts including electricity,

### Prerequisite: Algebra 1



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

**Prerequisite: None** 

#### Health



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

**Prerequisite: None** 

Length: Semester

# High School—Electives, continued

# HTML

In this course, students learn about the HyperText Markup Language (HTML), web design, and programming. Students explore the elements required to build a website, including lists, tables, frames, and other web design elements. They also practice designing and using Cascading Style Sheets to enhance a webpage. Finally, students learn and apply basic web design and layout principles, including testing and publishing a website. At the end of this course, students have a knowledge of and appreciation for HTML and its use for web design and programming.

#### **Prerequisite: None**

#### Length: 9-week

Length: 9-week

Length: Semester/Year

Length: Semester/Year

#### **Internet Safety**



Introduction

**Applications** 

Introduction

Applications

to **OpenOffice** 

to Office

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

#### **Prerequisite: None**

Microsoft Office applications are integral to both school and career. In this course, students learn the basics of the following Office Applications: Microsoft<sup>®</sup> Word, Excel<sup>®</sup>, Access<sup>®</sup>, and PowerPoint<sup>®</sup>. Students create, save, and customize Word documents in order to meet their own needs and the requirements of class projects and assignments. Students create and customize Excel workbooks to organize data. Students produce an Access database and use it to store and track information. Finally, students design PowerPoint presentations for both school and personal use. Throughout this course, students practice using each application extensively in a variety of situations.

#### Prerequisite: None

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

#### **Prerequisite: None**

Java"

This course introduces students to the Java<sup>™</sup> programming language. Students learn how programming languages work, how to use basic programming tools to design web applications, and how to write a basic program. Students then learn about arrays, objects, creating behavior with methods, forming an inheritance hierarchy, and designing and creating subclasses and superclasses. Finally, students apply what they have learned to build user interfaces and use input and output streams to move data. At the end of this course, students have a knowledge of and appreciation for the Java<sup>™</sup> programming language.

**Prerequisite: None** 

# High School—Electives, continued

#### Life Skills



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

**Prerequisite: None** 

Length: Semester

Length: 9-week

Length: Semester

#### Mechanical Engineering



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

Prerequisite: Algebra 1

#### **Music Theory**



In this course, students will be immersed in the world of music and the technical details of how music works. The course is designed to provide students with a comprehensive and engaging look at music theory and the notation and structure important to its development. Students learn about various aspects of music theory, including the different types of musical staffs, notes, scales, and chords. Students are also exposed to the use of harmony to produce melodic structure. At the completion of this course, students will have gained knowledge of and appreciation for music theory.

#### **Prerequisite: None**

**Personal Finance** 



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

**Prerequisite: None** 

#### Science of Computing



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

Prerequisite: None

Length: 9-week

# **High School—Extended Electives**

Art in World Cultures



Who is the greatest artist of all time? Is it Leonardo da Vinci? Claude Monet? Michelangelo? Pablo Picasso? Or someone whose name has been lost to history? You will learn about many important artists in addition to creating art of your own, including digital art. This course will explore the basic principles and elements of art. You will learn to critique art; examine the traditional art of the Americas, Africa, and Oceania; and learn how Western art developed.

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

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

**Prerequisite: None** 

**Prerequisite: None** 

**Prerequisite: None** 

Length: Semester

**Length: Semester** 



Cosmetology: Cutting Edge Styles



Digital Photography 1: Creating Images with Impact!



Digital Photography 2: Discovering Your Creative Potential



Early Childhood Education 1



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

**Prerequisite: None** 

Length: Semester

**Length: Semester** 

Have you ever wondered how photographers take such great pictures? Have you tried to take photographs and wondered why they didn't seem to capture a moment the way that you saw it? Digital Photography 1 focuses on the basics of photography, including building an understanding of aperture, shutter speed, lighting, and composition. Students will be introduced to the history of photography and basic camera functions. Students will use camera functions and the techniques of composition to build a portfolio that includes images of people, landscapes, minute details, and thrilling action.

In today's world, photographs are all around you in advertisements, on websites, and hung as art. Many of the images

that you see have been created by professional photographers. In this course, students will examine various aspects of professional photography, including the ethics of the profession and specialty areas, such as wedding and product

photography. The course also introduces students to some of the most respected professional photographers in history and provides instruction in critiquing photographs so students can better understand what creates an eye-catching

Prerequisite: None

photograph.

quisite: None

**Prerequisite: Digital Photography 1** 

Length: Semester

# High School—Extended Electives, continued

The course also examines some current and future trends in the field.

Fashion and Interior Design



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

With greater disposable income and more opportunities for business travel, people are traversing the globe in growing

numbers. As a result, hospitality and tourism is one of the fastest growing industries in the world. This course will

introduce students to the hospitality and tourism industry, including hotel and restaurant management, cruise ships, spas, resorts, theme parks, and other areas. Students will learn about key hospitality issues, the development and management of tourist locations, event planning, marketing, and environmental issues related to leisure and travel.

**Prerequisite: None** 

**Prerequisite: None** 

Length: Semester

Hospitality & Tourism: Traveling the Globe



International Business: Global Commerce in the 21st Century



#### Introduction to Culinary Arts



#### Introduction to Manufacturing



Introduction to Social Media



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

This course is designed to help students develop the appreciation, knowledge, skills, and abilities needed to live and work in a global marketplace. It takes a global view on business, investigating why and how companies expand internationally. The course provides students with a conceptual tool that can help them understand how economic, social, cultural, political, and legal factors influence both domestic and international business. Business structures, global entrepreneurship, business management, marketing, and the challenges of managing international organizations will all be explored. Students will become aware of the ways history, geography, language, cultural studies, research skills, and continuing education are important to modern business.

Prerequisite: None

Food is all around you. Everyone depends on it and enjoys eating it. This course will give you the fundamentals to start working in the kitchen and gaining experience as you explore and establish your talents for cooking and preparing food in a creative and safe way. You will learn safety measures as well as enhance your knowledge of various types of foods and spices. If you enjoy hands-on learning and want to deepen your knowledge about culinary arts, this is a great course to get you started cooking, whether for your own enjoyment or as a career.

**Prerequisite: None** 

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

Prerequisite: None

Prerequisite: None

Length: Semester

Length: Semester

Length: Semester

Length: Semester

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# High School—Extended Electives, continued



# High School—Extended Electives, continued



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

Prerequisite: None

Length: Semester

#### The Lord of the Rings



*The Lord of the Rings* has always been popular among lovers of fantasy novels and has gained new life with its most recent adaptation to film. In this course, you will study the movies made based on J.R.R. Tolkien's epic novel and learn about the process of converting literature to film. You will explore fantasy literature as a genre and critique the three films directed by Peter Jackson.

**Prerequisite: None** 

Му	Course	List:
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