

Graduation Solutions, LLC



Course Catalog 2015-2016

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*Courses marked with an asterisk are one-semester

NOTE: All courses are created and powered by Edgenuity, Inc.

English Language Arts

English: Language Arts 9

This freshman-year English course engages students in literary analysis and inferential evaluation of great texts both classic and contemporary. While critically reading fiction, poetry, drama, and literary nonfiction, students will master comprehension and literary-analysis strategies. Interwoven in the lessons across two semesters are activities that encourage students to strengthen their oral language skills and produce clear, coherent writing. Students will read a range of classic texts including Homer’s *The Odyssey*, Shakespeare’s *Romeo and Juliet*, and Richard Connell’s “The Most Dangerous Game.” They will study also short but complex texts, including influential speeches by Dr. Martin Luther King Jr., Franklin D. Roosevelt, and Ronald Reagan. Contemporary texts by Richard Preston, Julia Alvarez, and Maya Angelou round out the course.

English: Language Arts 10

Focused on application, this sophomore English course reinforces literary analysis and twenty-first century skills with superb pieces of literature and literary nonfiction, application e-resources, and educational interactives. Each thematic unit focuses on specific literary analysis skills and allows students to apply them to a range of genres and text structures. As these units meld modeling and application, they also expand on training in media literacy, twenty-first century career skills, and the essentials of grammar and vocabulary. Under the guidance of the eWriting software, students also compose descriptive, persuasive, expository, literary analyses, research, narrative, and compare-contrast essays.

English: Language Arts 11

This junior-year English course invites students to delve into American literature from early American Indian voices through contemporary works. Students engage in literary analysis and inferential evaluation of great texts as the centerpieces of this course. While critically reading

fiction, poetry, drama, and expository nonfiction, students master comprehension and literary analysis strategies. Interwoven in the lessons across two semesters are tasks that encourage students to strengthen their oral language skills and produce creative, coherent writing. Students read a range of short but complex texts, including works by Ralph Waldo Emerson, Emily Dickinson, Herman Melville, Nathaniel Hawthorne, Paul Laurence Dunbar, Martin Luther King, Jr., F. Scott Fitzgerald, Sandra Cisneros, Amy Tan, and Dave Eggers.

English: Language Arts 12

This senior-level English course offers fascinating insight into British literary traditions spanning from Anglo-Saxon writing to the Modern Period. With interactive introductions and historical contexts, this full-year course connects philosophical, political, religious, ethical, and social influences of each time period to the works of many notable authors, including Chaucer, William Shakespeare, Queen Elizabeth I, Elizabeth Barrett Browning, and Virginia Woolf. Adding an extra dimension to the British literary experience, this course also exposes students to world literature, including works from India, Europe, China, and Spain.

English Language Arts Electives

Literacy & Comprehension I*

This course is one of two, semester-long intervention courses designed to support the development of strategic reading and writing skills. These courses use a thematic and contemporary approach, including high-interest topics to motivate students and expose them to effective instructional principles using diverse content area and real-world texts. Both courses offer an engaging technology-based interface that inspires and challenges students to gain knowledge and proficiency in the following comprehension strategies: summarizing, questioning, previewing and predicting, recognizing text structure, visualizing, making inferences, and monitoring understanding with metacognition. Aimed at improving fluency and vocabulary, self-evaluation strategies built into these courses inspire students to take control of their learning.

Literacy & Comprehension II*

Offering high-interest topics to motivate students who are reading two to three levels below grade, this course works in conjunction with Literacy & Comprehension I to use a thematic and contemporary approach to expose students to effective instructional principles using diverse content area and real-world texts. Presented as two, one-semester, reading-intervention courses, each offers an engaging, technology-based interface that inspires and challenges high school and middle school students to gain knowledge and proficiency in the following comprehension strategies: summarizing, questioning, previewing and predicting, recognizing text structure, visualizing, making inferences, and monitoring understanding with metacognition. Aimed at improving fluency and vocabulary, self-evaluation strategies built into these courses inspire students to take control of their learning.

Expository Reading and Writing

This elective English course is designed to develop critical reading and writing skills while preparing high school students to meet the demands of college-level work. While students will

explore some critical reading skills in fiction, poetry, and drama the focus of this course will be on expository and persuasive texts and the analytical reading skills that are necessary for college success. Students will read a range of short but complex texts, including works by Walt Whitman, Abraham Lincoln, Cesar Chavez, Martin Luther King Jr., Langston Hughes, Julia Alvarez, Edna St. Vincent Millay, and Gary Soto.

Introduction to Communications and Speech*

Beginning with an introduction that builds student understanding of the elements, principles, and characteristics of human communication, this course offers fascinating insight into verbal and nonverbal messages and cultural and gender differences in the areas of listening and responding. High school students enrolled in this one-semester course will be guided through engaging lectures and interactive activities, exploring themes of self-awareness and perception in communication. The course concludes with units on informative and persuasive speeches, and students are given the opportunity to critique and analyze speeches.

IDEA Writing–Instruction to Develop Expository & Applied Writing*

Motivating students in grades nine through twelve to become more articulate and effective writers, this one-semester course offers hands-on experience writing personal reflections, definition essays, research essays, persuasive essays, informative essays, and literary analysis essays. Offering targeted lessons on reputable research, effective communication, solid grammar, and compelling style, this one-semester course utilizes the Six Traits of Effective Writing as an overarching framework. Students enrolled in this course develop the skills necessary to evaluate their own writing and articulate and apply writing and researching strategies. In addition, students get further practice applying the grammatical rules of Standard American English in formal writing.

Classic Novels and Author Studies**

Classic Novels provides an in-depth study of twelve novels and two authors and gives students the opportunity to fully explore a large work of fiction or to be introduced to a celebrated author. Each mini-course guides students through the work with lectures, web activities, journals, and homework/practice. Students study the following novels: *1984*, *A Midsummer Night's Dream*, *Call of the Wild*, *Dr. Jekyll and Mr. Hyde*, *Heart of Darkness*, *Jane Eyre*, *Mrs. Dalloway*, *Portrait of the Artist*, *Robinson Crusoe*, *The House of Seven Gables*, *The Red Badge of Courage*, and *The Three Musketeers* along with the following author studies: Jorge Luis Borges and Flannery O'Connor.

Mathematics

Algebra I

This full-year course focuses on five critical areas: relationships between quantities and reasoning with equations, linear and exponential relationships, descriptive statistics, expressions and equations, and quadratic functions and modeling. This course builds on the foundation set in middle grades by deepening students' understanding of linear and exponential functions, and developing fluency in writing and solving one-variable equations and inequalities. Students will

interpret, analyze, compare, and contrast functions that are represented numerically, tabularly, graphically, and algebraically. Quantitative reasoning is a common thread throughout the course as students use algebra to represent quantities and the relationships among those quantities in a variety of ways. Standards of mathematical practice and process are embedded throughout the course, as students make sense of problem situations, solve novel problems, reason abstractly, and think critically.

Geometry

This course formalizes what students learned about geometry in the middle grades with a focus on reasoning and making mathematical arguments. Mathematical reasoning is introduced with a study of triangle congruency, including exposure to formal proofs and geometric constructions. Then students extend what they have learned to other essential triangle concepts, including similarity, right-triangle trigonometry, and the Laws of Sines and Cosines. Moving on to other shapes, students justify and derive various formulas for circumference, area, and volume, as well as cross-sections of solids and rotations of two-dimensional objects. Students then make important connections between geometry and algebra, including special triangles, slopes of parallel and perpendicular lines, and parabolas in the coordinate plane, before delving into an in-depth investigation of the geometry of circles. The course closes with a study of set theory and probability, as students apply theoretical and experimental probability to make decisions informed by data analysis.

Algebra II

This course focuses on functions, polynomials, periodic phenomena, and collecting and analyzing data. The course begins with a review of linear and quadratic functions to solidify a foundation for learning these new functions. Students make connections between verbal, numeric, algebraic, and graphical representations of functions and apply this knowledge as they create equations and inequalities that can be used to model and solve mathematical and real-world problems. As students refine and expand their algebraic skills, they will draw analogies among the operations and field properties of real numbers and those of complex numbers and algebraic expressions. Mathematical practices and habits of mind are embedded throughout the course, as students solve novel problems, reason abstractly, and think critically.

Precalculus

With an emphasis on function families and their representations, Precalculus is a thoughtful introduction to advanced studies leading to calculus. The course briefly reviews linear equations, inequalities, and systems and moves purposefully into the study of functions. Students then discover the nature of graphs and deepen their understanding of polynomial, rational, exponential, and logarithmic functions. Scaffolding rigorous content with clear instruction, the course leads students through an advanced study of trigonometric functions, matrices, and vectors. The course concludes with a short study of probability and statistics.

Financial Math

Connecting practical mathematical concepts to personal and business settings, this course offers informative and highly useful lessons that challenge students to gain a deeper understanding of financial math. Relevant, project-based learning activities cover stimulating topics such as

personal financial planning, budgeting and wise spending, banking, paying taxes, the importance of insurance, long-term investing, buying a house, consumer loans, economic principles, traveling abroad, starting a business, and analyzing business data. Offered as a two-semester course for high school students, this course encourages mastery of math skill

Trigonometry*

In this one-semester course, students use their geometry and algebra skills to begin their study of trigonometry. Students will be required to express understanding using qualitative, quantitative, algebraic, and graphing skills. This course begins with a quick overview of right-triangle relationships before introducing trigonometric functions and their applications. Students explore angles and radian measures, circular trigonometry, and the unit circle. Students extend their understanding to trigonometric graphs, including the effects of translations and the inverses of trigonometric functions. This leads to the Laws of Sines and Cosines, followed by an in-depth exploration of trigonometric identities and applications. This course ends with an introduction to the polar coordinate system, complex numbers, and DeMoivre's Theorem.redit

Math Electives

Mathematics I

The first in an integrated math series for high school, this course formalizes and extends middle school mathematics, deepening students' understanding of linear relationships. The course begins with a review of relationships between quantities, building from unit conversion to a study of expressions, equations, and inequalities. Students contrast linear and exponential relationships, including a study of sequences, as well as applications such as growth and decay. Students review one-, two-, and multi-step equations, formally reasoning about each step using properties of equality. Students extend this reasoning to systems of linear equations. Students use descriptive statistics to analyze data before turning their attention to transformations and the relationship between algebra and geometry on the coordinate plane.

Mathematics II

This course begins with a brief exploration of radicals and polynomials before delving into quadratic expressions, equations, and functions, including a derivation of the quadratic formula. Students then embark on a deep study of the applications of probability and develop advanced reasoning skills with a study of similarity, congruence, and proofs of mathematical theorems. Students explore right triangles with an introduction to right-triangle trigonometry before turning their attention into the geometry of circles and making informal arguments to derive formulas for the volumes of various solids.

Mathematics III

This course synthesizes previous mathematical learning in four focused areas of instruction. First, students relate visual displays and summary statistics to various types of data and to probability distributions with a focus on drawing conclusions from the data. Then, students embark on an in-depth study of polynomial, rational, and radical functions, drawing on concepts of integers and number properties to understand polynomial operations and the combination of

functions through operations. This section of instruction builds to the Fundamental Theorem of Algebra. Students then expand the study of right-triangle trigonometry they began in Mathematics II to include non-right triangles and developing the Laws of Sines and Cosines. Finally, students model an array of real-world situations with all the types of functions they have studied, including work with logarithms to solve exponential equations. As they synthesize and generalize what they have learned about a variety of function families, students appreciate the usefulness and relevance of mathematics in the real world.

Mathematical Models with Applications

Broadening and extending the mathematical knowledge and skills acquired in Algebra I, the primary purpose of this course is to use mathematics as a tool to model real-world phenomena students may encounter daily, such as finance and exponential models. Engaging lessons cover financial topics, including growth, smart money, saving, and installment-loan models. Prior mathematical knowledge is expanded and new knowledge and techniques are developed through real-world application of useful mathematical concepts.

Science

Physical Science

This full-year course focuses on basic concepts in chemistry and physics and encourages exploration of new discoveries in the field of physical science. The course includes an overview of scientific principles and procedures and has students examine the chemical building blocks of our physical world and the composition of matter. Additionally, students explore the properties that affect motion, forces, and energy on Earth. Building on these concepts, the course covers the properties of electricity and magnetism and the effects of these phenomena. As students refine and expand their understanding of physical science, they will apply their knowledge to complete interactive virtual labs that require them to ask questions and create hypotheses. Hands-on wet lab options are also available.

Biology

This compelling two-semester course engages students in the study of life and living organisms and examines biology and biochemistry in the real world. This is a yearlong course that encompasses traditional concepts in biology and encourages exploration of new discoveries in this field of science. The components include biochemistry, cell biology, cell processes, heredity and reproduction, the evolution of life, taxonomy, human body systems, and ecology. This course includes both hands-on wet labs and virtual lab options.

Chemistry

This rigorous, full-year course engages students in the study of the composition, properties, changes, and interactions of matter. The course covers the basic concepts of chemistry and includes eighteen virtual laboratory experiments that encourage higher order thinking applications, with wet lab options if preferred. The components of this course include chemistry and its methods, the composition and properties of matter, changes and interactions of matter, factors affecting the interactions of matter, electrochemistry, organic chemistry, biochemistry, nuclear chemistry, mathematical applications, and applications of chemistry in the real world.

Physics

This full-year course acquaints students with topics in classical and modern physics. The course emphasizes conceptual understanding of basic physics principles, including Newtonian mechanics, energy, thermodynamics, waves, electricity, magnetism, and nuclear and modern physics. Throughout the course, students solve mathematical problems, reason abstractly, and learn to think critically about the physical world. The course also includes interactive virtual labs and hands-on lab options, in which students ask questions and create hypotheses.

Environmental Science

Environmental science is a captivating and rapidly expanding field, and this two-semester course offers compelling lessons that cover many aspects of the field: ecology, the biosphere, land, forests and soil, water, energy and resources, and societies and policy. Through unique activities and material, high school students connect scientific theory and concepts to current, real-world dilemmas, providing them with opportunities for mastery in each of the segments throughout the semester.

Social Studies

World History

This yearlong course examines the major events and turning points of world history from ancient times to the present. Students investigate the development of classical civilizations in the Middle East, Africa, Europe, and Asia, and they explore the economic, political, and social revolutions that have transformed human history. At the end of the course, students conduct a rigorous study of modern history, allowing them to draw connections between past events and contemporary issues. The use of recurring themes, such as social history, democratic government, and the relationship between history and the arts, allows students to draw connections between the past and the present, among cultures, and among multiple perspectives. Throughout the course, students use a variety of primary and secondary sources, including legal documents, essays, historical writings, and political cartoons to evaluate the reliability of historical evidence and to draw conclusions about historical events.

U.S. History

This one-year high school course presents a cohesive and comprehensive overview of the history of the United States, surveying the major events and turning points of U.S. history as it moves from the Era of Exploration through modern times. As students examine each era of history, they will analyze primary sources and carefully research events to gain a clearer understanding of the factors that have shaped U.S. history. In early units, students will assess the foundations of U.S. democracy while examining crucial documents. In later units, students will examine the effects of territorial expansion, the Civil War, and the rise of industrialization. They will also assess the outcomes of economic trends and the connections between culture and government. As the course draws to a close, students will focus their studies on the causes of cultural and political change in the modern age. Throughout the course, students will learn the importance of cultural diversity while examining history from different perspectives.

U.S. Government*

This semester-long course provides students with a practical understanding of the principles and procedures of government. The course begins by establishing the origins and founding principles of American government. After a rigorous review of the Constitution and its Amendments, students investigate the development and extension of civil rights and liberties. Lessons also introduce influential Supreme Court decisions to demonstrate the impact and importance of constitutional rights. The course builds on this foundation by guiding students through the function of government today and the role of citizens in the civic process and culminates in an examination of public policy and the roles of citizens and organizations in promoting policy changes. Throughout the course, students examine primary and secondary sources, including political cartoons, essays, and judicial opinions. Students also sharpen their writing skills in shorter tasks and assignments, and practice outlining and drafting skills by writing full informative and argumentative essays.

Economics*

This semester-long course invites students to broaden their understanding of how economic concepts apply to their everyday lives—including microeconomic and macroeconomic theory and the characteristics of mixed-market economies, the role of government in a free-enterprise system and the global economy, and personal finance strategies. Throughout the course, students apply critical-thinking skills while making practical economic choices. Students also master literacy skills through rigorous reading and writing activities. Students analyze data displays and write routinely and responsively in tasks and assignments that are based on scenarios, texts, activities, and examples. In more extensive, process-based writing lessons, students write full-length essays in informative and argumentative formats.

Social Studies Electives

Human Geography

Examining current global issues that impact our world today, this course takes a thematic approach to understanding the development of human systems, human understanding of the world, and human social organization. Divided into two semesters, this high school course will challenge students to develop geographic skills, including learning to interpret maps, analyze data, and compare theories. Offering interactive content that will grow students' understanding of the development of modern civilization and human systems—from the agricultural revolution to the technological revolution—this course encourages students to analyze economic trends as well as compare global markets and urban environments.

Fine Arts Electives

Introduction to Art*

Covering art appreciation and the beginning of art history, this course encourages students to gain an understanding and appreciation of art in their everyday lives. Presented in an engaging format, this one-semester course provides an overview of many introductory themes: the definition of art, the cultural purpose of art, visual elements of art, terminology and principles of design, and two- and three-dimensional media and techniques. Tracing the history of art, high

school students enrolled in the course also explore the following time periods and places: prehistoric art, art in ancient civilizations, and world art before 1400.

Art History I*

Introducing art within historical, social, geographical, political, and religious contexts for understanding art and architecture through the ages, this course offers high school students an in-depth overview of art throughout history, with lessons organized by chronological and historical order and world regions. Students enrolled in this one-semester course cover topics including early Medieval and Romanesque art; art in the twelfth, thirteenth, and fourteenth centuries; fifteenth-century art in Europe; sixteenth century art in Italy; the master artists; High Renaissance and Baroque art; world art, which includes the art of Asia, Africa, the Americas, and the Pacific cultures; eighteenth and nineteenth-century art in Europe and the Americas; and modern art in Europe and the Americas.

Other Electives

Psychology

This two-semester course introduces high school students to the study of psychology and helps students' master fundamental concepts in research, theory, and human behavior. Students analyze human growth, learning, personality, and behavior from the perspective of major theories within psychology, including the biological, psychosocial, and cognitive perspectives. From a psychological point of view, students investigate the nature of being human as they build a comprehensive understanding of traditional psychological concepts and contemporary perspectives in the field. Course components include an introduction to the history, perspectives, and research of psychology; an understanding of topics such as the biological aspects of psychology, learning, and cognitive development; the stages of human development; aspects of personality and intelligence; the classification and treatment of psychological disorders; and psychological aspects of social interactions.

Sociology*

Providing insight into the human dynamics of our diverse society, this is an engaging, one-semester course that delves into the fundamental concepts of sociology. This interactive course, designed for high school students, covers cultural diversity and conformity, basic structures of society, individuals and socialization, stages of human development as they relate to sociology, deviance from social norms, social stratification, racial and ethnic interactions, gender roles, family structure, the economic and political aspects of sociology, the sociology of public institutions, and collective human behavior, both historically and in modern times.

Strategies for Academic Success*

Offering a comprehensive analysis of different types of motivation, study habits, and learning styles, this one-semester course encourages high school and middle school students to take control of their learning by exploring varying strategies for success. Providing engaging lessons that will help students identify what works best for them individually, this one-semester course covers important study skills, such as strategies for taking high-quality notes, memorization techniques, test-taking strategies, benefits of visual aids, and reading techniques.

Modern Languages

Spanish I

Students begin their introduction to high school Spanish with fundamental building blocks in four key areas of foreign language study: listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure story, a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and multimedia cultural presentations covering major Spanish-speaking areas in Europe and the Americas.

Spanish II

High school students continue their introduction to Spanish with fundamental building blocks in four key areas of foreign language study: listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure story, a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, cultural presentations covering major Spanish-speaking areas in Europe and the Americas, and assessments.

Spanish III

In this expanding engagement with Spanish, high school students deepen their focus on four key skills in foreign language acquisition: listening comprehension, speaking, reading, and writing. In addition, students read significant works of literature in Spanish, and respond orally or in writing to these works. Continuing the pattern, and building on what students encountered in the first two years, each unit consists of a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and multimedia cultural presentations covering major Spanish-speaking areas in Europe and the Americas.

Work-based Learning Electives

3D Art I –Modeling*

This course focuses on the fundamental concepts of 3D modeling and explores the basic concepts and skills of 3D animation. Students learn BlenderR software to create 3D models such as a house, a creature, an animation of the creature walking, and a landscape terrain. Activities include using points on a grid to create mountains and using a color gradient to create a sun and a moon. Students learn 3D space and 3D objects; creating, scaling, and rotating objects; materials and textures; poses and key frames; extruding and mirroring 3D objects; rendering animations; and appending materials, textures, objects, armatures, and animations.

3D Art II –Animation*

This course focuses on building animation skills including realistic movement and lighting. Students learn the BlenderR software workspace and tools; location and rotation properties; scripts; IP curves; vector handles; rendering and baking animations and simulations; and particle systems and emitters. Activities and projects promote key 3D animation concepts including frames and key frames, squash and stretch, action strips, walk cycles and poses, and trajectories.

Students develop the skills needed to design and create animations with an understanding of the skills needed to succeed as professional animators. (Prerequisite: 3D Art I – Modeling).

Career Explorations*

This course prepares middle school students to make informed decisions about their future academic and occupational goals. Through direct instruction, interactive skill demonstrations, and practice assignments, students learn how to assess their own skills and interests, explore industry clusters and pathways, and develop plans for career and academic development. This course is designed to provide flexibility for students; any number of units can be selected to comprise a course that meets the specific needs of students.

Career Planning & Development*

Introducing high school students to the working world, this course provides the knowledge and insight necessary to compete in today's challenging job market. This relevant and timely course helps students investigate careers as they apply to personal interests and abilities, develop the skills and job search documents needed to enter the workforce, explore the rights of workers and traits of effective employees, and address the importance of professionalism and responsibility as careers change and evolve. This one-semester course includes lessons in which students create a self-assessment profile, a cover letter, and a resume that can be used in their educational or career portfolio.

Work-based Learning Credit*

Work-Based Learning credit enables students to earn credit while working or volunteering on an approved job site and learning through the experience. A student must have taken or currently be enrolled in a Career Explorations or Career Planning and Development course to be eligible for work experience credit. Students will receive a pass/fail grade only for Work-based Learning credit.

Students may earn ½ Work-based Learning credit for every 75 hours of approved paid or volunteer experience accumulated during a semester. Students can earn up to one Work-based Learning credit per semester and up to a total of four credits toward their high school diploma.*

*Graduating seniors may earn up to a total of four Work-based Learning credits during their senior year as long as they stay within the maximum four credit limit for their high school diploma.

Computer Applications- Office® 2010*

This one-semester course introduces students to the features and functionality of the most widely used productivity software in the world: Microsoft® Office®. Through video instruction, interactive skill demonstrations, and numerous hands-on practice assignments, students learn to develop, edit and share Office® 2010 documents for both personal and professional use. By the end of this course, students will have developed basic proficiency in the most common tools and features of the Microsoft® Office® 2010 suite of applications: Word®, Excel®, PowerPoint®, and Outlook®.

Computer Science*

This one-semester course introduces students to the basics of computer science through a series of PythonR programming projects that encourage creativity and experimentation. Students create a diverse portfolio of projects as they learn commands and functions, values and variables, Graphical User Interface, modular and object-oriented programming, and events and event-driven processes. Students also learn loops, debugging techniques, software-development processes, arrays and sets, generators and namespaces, packages and libraries, randomness, file handling, and how to program simple games. Students explore careers in programming, including profiles from a wide variety of programming professionals.

Digital Arts*

Digital Arts focuses on building a solid foundation of the elements of art and design: line, shape, form, color, value, space, and texture. Topics include learning processes for evaluating artworks and identifying selected artists' works, styles, and historical periods. Student learn 3D space in a 2D environment; filters, gradients, and highlights; and methods of working with color. By the end of this course, students will have created a unique portfolio of digital artwork, including repeating images to be used as a computer's desktop background, a logo with text, two images scaled proportionally to one another, and a poster image and layout. Students advance their skills using Inkscape, a free open-source alternative to AdobeR IllustratorR, and also learn new tools such as the Spiral, Bezier, and Paint Bucket Tools.

Engineering Design*

Engineering Design introduces students to computer-aided design including the creation of geometric forms, interpreting 2D and 3D drawings of objects, and editing isometric and perspective drawings in a professional CAD environment. Students learn the steps of the design process by modeling and building paper towers, bridges, or platforms. Projects include orthographic projections of 3D objects, isometric drawings, designing a 3D container, and applying math and geometry skills to models and engineering processes. Students produce drawings to meet design specifications, create oblique and perspective CAD drawings, edit drawings in a 3D CAD environment, and apply reverse engineering to an object to explore its parts, aesthetics, and manufacturing process. Students also learn Creo™ Elements/Direct™, a 3D CAD modeling program used by professional engineers.

Introduction to Entrepreneurship*

This one-semester course teaches the key skills and concepts students need to know to plan and launch a business. Students learn about real-life teen entrepreneurs; characteristics of successful entrepreneurs; how to attract investors and manage expenses; sales stages, planning, and budgeting; how to generate business ideas and create a business plan; and how to promote and market a company. Topics include exploring factors of business success and failure, economic systems, competition, production, costs and pricing, accounting, bookkeeping, and financial reporting, working with others, and successfully managing employees.

Personal Finance*

This introductory finance course teaches what it takes to understand the world of finance and make informed decisions about managing finances. Students learn more about economics and

become more confident in setting and researching financial goals as they develop the core skills needed to be successful. In this one-semester course, students learn how to open bank accounts, invest money, apply for loans, apply for insurance, explore careers, manage business finances, make decisions about major purchases, and more. Students will be inspired by stories from finance professionals and individuals who have reached their financial goals.

Audio Engineering**

This introductory, supplemental course teaches the four main steps of professional audio engineering: recording, editing, mixing, and mastering. Through a series of AudacityR software projects, students learn tones and waveforms, recording studios and formats, Musical Instrument Digital Interface (MIDI) and Digital Audio Workstations (DAWR), syncing audio, and many other topics relating to the field of audio engineering. Activities include echo and reverb effects; encoding and exporting audio; mastering audio files and mixing samples to create a new track; equalizing, compressing, and normalizing audio files; and adding fading and crossfading.

Health Science Concepts

This yearlong course introduces high school students to the fundamental concepts of anatomy and physiology—including the organization of the body, cellular functions, and the chemistry of life. As they progress through each unit, students learn about the major body systems, common diseases and disorders, and the career specialties associated with each system. Students investigate basic medical terminology as well as human reproduction and development. Students are introduced to these fundamental health science concepts through direct instruction, interactive tasks, and practice assignments. This course is intended to provide students with a strong base of core knowledge and skills that can be used in a variety of health science career pathways.

Introduction to Business

In this two-semester introductory course, students learn the principles of business using real-world examples—learning what it takes to plan and launch a product or service in today’s fast-paced business environment. This course covers an introduction to economics, costs and profit, and different business types. Students are introduced to techniques for managing money, personally and as a business, and taxes and credit; the basics of financing a business; how a business relates to society both locally and globally; how to identify a business opportunity; and techniques for planning, executing, and marketing a business to respond to that opportunity.

Introduction to Health Science

This high school course introduces students to a variety of healthcare careers, as they develop the basic skills required in all health and medical sciences. In addition to learning the key elements of the U.S. healthcare system, students learn terminology, anatomy and physiology, pathologies, diagnostic and clinical procedures, therapeutic interventions, and the fundamentals of medical emergency care. Throughout the course, instructional activities emphasize safety professionalism, accountability, and efficiency for workers within the health care field.

Introduction to Information Technology

This course introduces students to the essential technical and professional skills required in the field of Information Technology (IT). Through hands-on projects and written assignments, students gain an understanding of the operation of computers, computer networks, Internet fundamentals, programming, and computer support. Students also learn about the social impact of technological change and the ethical issues related to technology. Throughout the course, instructional activities emphasize safety, professionalism, accountability, and efficiency for workers within the field of IT

Medical Terminology*

This semester-long course introduces students to the structure of medical terms, plus medical abbreviations and acronyms. The course allows students to achieve comprehension of medical vocabulary appropriate to health care settings, medical procedures, pharmacology, human anatomy and physiology, and pathology. The knowledge and skills gained in this course provide students entering the health care field with a deeper understanding of the application of the language of health and medicine. Students are introduced to these skills through direct instruction, interactive tasks, practice assignments, and unit-level assessments.

Microsoft® Office® Specialist

This two-semester course introduces students to the features and functionality of Microsoft® Office® 2010 while preparing them for the beginning, intermediate, and advanced levels of the Microsoft User Specialist (MOS) certification program. Through video instruction, interactive skills demonstrations, practice assignments, and unit-level assessments, students become proficient in Microsoft Word®, Excel®, PowerPoint®, Outlook®, and Access®. By the end of the course, students are prepared to demonstrate their skills by obtaining one or more MOS certifications.

Nursing Assistant

This two-semester course prepares students to provide and assist with all aspects of activities of daily living and medical care for the adult patient in hospital, long-term care, and home settings. Through direct instruction, interactive skills demonstrations, and practice assignments, students are taught the basics of nurse assisting, including interpersonal skills, medical terminology and procedures, legal and ethical responsibilities, safe and efficient work, gerontology, nutrition, emergency skills, and employability skills. Successful completion of this course from an approved program prepares the student for state certification for employment as a Certified Nursing Assistant.

Pharmacy Technician

This two-semester course prepares students for employment as a Certified Pharmacy Technician (CPhT) covering the skills needed for the pharmacy technician field. Through direct instruction, interactive skills demonstrations, and practice assignments, students learn the basics of pharmacy assisting, including various pharmacy calculations and measurements, pharmacy law, pharmacology, medical terminology and abbreviations, medicinal drugs, sterile techniques, USP 795 and 797 standards, maintenance of inventory, patient record systems, data processing automation in the pharmacy, and employability skills. Successful completion of this course

prepares the student for national certification for employment as a Certified Pharmacy Technician.