

# **HIGH SCHOOL COURSE LIST**

CORE COURSES			
Grade 9	Grade 10	Grade 11	Grade 12
English 9	English 10	English 11	English 12
Algebra I	Geometry	Algebra II	Pre-Calculus
High School Earth & Space Science	Physics	Biology with Virtual Labs	Chemistry
World History	World Geography	U.S. History	U.S. Government (1 sem)
English 9 with Augmented Reality	Consumer Math (1 sem)	Financial Mathematics	Economics (1 sem)
Integrated Math 1	Integrated Math 2	Integrated Math 3	Probability and Statistics
World History Survey	Integrated Physics & Chemistry	Biology	Business English

ELECTIVE COURSES			
Academic Success	Introduction to Archaeology	Introduction to Visual Arts	Revolutionary Ideas in Science
African American Studies	Introduction to Astronomy	Introduction to World Religions	Social Issues
Art History & Appreciation	Introduction to Fashion Design	Music Appreciation	Sociology
Artificial Intelligence	Introduction to Forensic Science	Mythology & Folklore	Structure of Writing
Creative Writing	Introduction to Marine Biology	Native American Studies: Contemporary Perspectives	Theater, Cinema & Film Production
Environmental Science A/B	Introduction to Military Careers	Native American Studies: Historical Perspectives	Women's Studies

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USA: +1 (813)-558 3389



Gothic Literature	Introduction to Philosophy	Nutrition & Wellness	
Holocaust Studies	Introduction to Social Media	Personal Finance	
	Introduction to Veterinary Science	Psychology	

TEST PREPARATION COURSES			
SAT	<b>ADVANCED PLACEMENT®</b>	ACCUPLACER®	
SAT Reading	Advanced Biology	Accuplacer® Math	
SAT® I Language Arts	Advanced Calculus	Accuplacer® Reading	
SAT® I Mathematics	Advanced Chemistry	Accuplacer® Sentence Skills	
	Advanced Computer Science		
ACT	Advanced English Lit & Comp	NATIONAL CAREER READINESS	
ACT® English	Advanced U.S. History	National Career Readiness Certificate - Bronze Level	
ACT® Mathematics		National Career Readiness Certificate - Silver Level	
ACT <sup>®</sup> Reading	HiSET® PREPARATION	National Career Readiness Certificate - Gold Level	
ACT® Science Reasoning	HiSET® Preparation - Language Arts		
ACT® WORKKEYS	HiSET® Preparation - Mathematics	ASVAB	
	HiSET® Preparation - Science	ASVAB Mathematics	
	HiSET® Preparation - Social Studies	ASVAB Technology & General Science	
		ASVAB Work Knowledge & Paragraph Comprehension	

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CAREER AND TECHNICAL COURSES			
Accounting	Culinary Arts	International Business	Principles of Government & Public Administration
Applied Medical Terminology	Digital & Interactive Media	Introduction to Android Mobile App Development	Principles of Health Science
Audio Video Production 1	Drafting & Design	Introduction to Criminology	Principles of Hospitality & Tourism
Audio Video Production 2	Electronic Communication Skills	Introduction to Cybersecurity	Principles of Human Services
Audio Video Production 3	Entrepreneurship	Introduction to Finance	Principles of Information Technology
Business Information Management	Essential Career Skills	Introduction to iOS Mobile App Development	Principles of Law, Public Safety, Corrections, & Security
Career Explorations	Food Handler and Food Manager Certifications	Marketing, Advertising, & Sales	Principles of Manufacturing
Certified Nurse Aide	Foundations of Green Energy	Networking Fundamentals	Principles of Transportation, Distribution, & Logistics
Child Development & Parenting	Game Development	Principles of Agriculture, Food, & Natural Resources	Professional Communications
CompTIA A+ 220- 1001	Graphic Design & Illustration	Principles of Architecture and Construction	Professional Photography



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CompTIA A+ 220- 1002	Health Science 1	Principles of Arts, Audio/Video Technology, & Communications	Robotics I
CompTIA Network+ Certification (N10-007)	Health Science 2	· · · · · ·	Sports & Entertainment Marketing
Computer Programming 1		Principles of Education & Training	Virginia Networking Fundamentals
Computing for College & Careers		Principles of Engineering & Technology	Web Technologies

# HIGH SCHOOL COURSE DESCRIPTION

## English 9

English 9 v6.0 is a completely new course built for and 100% aligned to the Common Core State Standards for English Language Arts. A balance of fiction and nonfiction texts are used throughout the course, and each unit is designed around a thematic concept to provide cohesiveness to the skills-based lessons and activities that make up the unit.

The course intertwines the development of reading skills with the development of writing, speaking, and listening, and language skills. Students can look forward to a course where the information is delivered in easy-to-digest chunks using student-friendly language, with assessments that are tightly aligned to the concepts and skills learned in the lesson.

The course design reflects educator feedback about student engagement by featuring a variety of interactions, videos, and new student resources, such as worksheets and guided notes.





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Educators were also involved with writing activities and worksheets for this course. English 9 v6.0 reflects our commitment to standards alignment and putting the needs of educators and students first in all aspects of course design.

English 9 with Augmented Reality: Same as English 9 + This course also includes Augmented Reality activities in partnership with Boulevard Arts. The AR activities in this course are designed to immerse students in their English Language Arts learning while providing access to famous works of art for cross-curricular learning purposes.

#### <u>English 10</u>

This course focuses on using personal experiences, opinions, and interests as a foundation for developing effective writing skills. Skills acquired in English I are reinforced and refined. Literary models demonstrate paragraph unity and more sophisticated word choice. A research paper is required for completion of course. Topics include grammar, sentence and paragraph structure, organizing compositions, and the research paper.

## <u>English 11</u>

English 11A explores the relation between American history and literature from the colonial period through the realism and naturalism eras. English 11B explores the relation between American history and literature from the modernist period through the contemporary era, and presents learners with relevant cultural and political history. Readings are scaffolded with pre-reading information, interactions, and activities to actively engage learners in the content. The lessons in both semesters focus on developing grammar, vocabulary, speech, and writing skills.

## English 12

In keeping with the model established in English 11, these courses emphasize the study of literature in the context of specific historical periods, beginning with the Anglo-Saxon and medieval periods in Britain. Each lesson includes tutorials and embedded lesson

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activities that provide for a more engaging and effective learning experience. Semester B covers the romantic, Victorian, and modern eras. End of unit tests ensure mastery of the concepts taught in each unit, and exemptive pretests allow students to focus on content that they have yet to master.

#### <u>Business English</u>

Business English is designed to strengthen students' ability to read and write in the workplace. Writing for business purposes is a main focus of the course. Students will learn how to communicate effectively through email and instant messaging, as well as format specific types of business messages and workplace documents. The role of digital media, visuals, and graphics in workplace communication will be explored. The importance of professionalism, ethics, and other positive skills are also emphasized in the course. Additionally, guidance is provided to help students through the process of searching, applying, and interviewing for a job.

## <u>Algebra I</u>

Algebra 1 v7.0 is a completely re-designed course that offers 100% alignment to the Common Core State Standards for Mathematics. The specific standard alignment for each lesson is visible to both educators and students. In addition to the emphasis on alignment, the lessons in the new course are designed to be shorter in length than lessons of previous versions, offering focused exploration of topics to make concepts more digestible for students.

Practice questions are included with each lesson, including technology-enhanced items and explanations to assist students in their understanding of the concepts. New features to support student mastery include worksheets for practice and guided notes to help students record key takeaways as they move through the tutorial.

The course is also built around student engagement, with more interactive lessons and videos that work through examples and model problem-solving skills. This fresh new look and feel for the course was inspired by educator feedback.









Educators were also involved in the course at the design-level, as many unit activities, worksheets, and video scripts were written by current algebra classroom teachers. Algebra 1 v7.0 reflects our commitment to standards alignment and putting the needs of educators and students first in all aspects of course design.

#### **Geometry**

A comprehensive examination of geometric concepts, each lesson provides thorough explanations and builds on prior lessons. Step-by-step instruction and multiple opportunities for self-check practice develop skills and confidence in students as they progress through the course. The course features animations, which allow students to manipulate angles or create shapes, such as triangles, engage students in learning and enhance mastery. Labs extend comprehension by giving students hand-on experiences.

#### <u>Algebra II</u>

This course advances students' ability to think algebraically, taking their earlier work with linear, exponential, and quadratic equations and expanding on it with polynomials and more advanced equation types. Students will work with rational, radical, logarithmic, inverse, and piecewise functions. They will also extend their studies to include systems of equations and inequalities, trigonometry, complex numbers, and statistics. The course emphasizes using these algebraic concepts to solve problems and help people in many walks of life. The course employs many tools to teach students these concepts, including interactive graphing, videos that walk through problems, and many practice items.

#### Integrated Math 1

These two semester-long courses are designed to enable all students at the high-school level to develop a deep understanding of the math objectives covered and leave them ready for their next steps in mathematics. The courses are built to the Common Core State Standards. The three units in Semester A advance students through the study of single-variable expressions to systems of equations, while Semester B covers functions,







advanced functions, and concludes with a practical look at the uses of geometry and trigonometry.

#### Integrated Math 2

Building on the concepts covered in Integrated Math 1, these courses are based on proven pedagogical principles and employ sound course design to effectively help students master rules of exponents and polynomials, advanced single-variable quadratic equations, independent and conditional probability, and more. Online and offline activities combine to create an engaging learning experience that prepares high school learners for their next step in their studies of mathematics.

#### Integrated Math 3

Beginning with the simplification of rational and polynomial expressions, Semester A takes students through the next steps in mastering the principles of integrated math. These two semester-long courses focus on meeting Common Core objectives with engaging and interactive content. Semester B begins with the derivation of the trigonometric formula for the area of a triangle, and proceeds through the use of functions and on developing the critical thinking skills necessary to make logical and meaningful inferences from data.

#### Pre-Calculus

Precalculus builds on algebraic concepts to prepare students for calculus. The course begins with a review of basic algebraic concepts and moves into operations with functions, where students manipulate functions and their graphs. Precalculus also provides a detailed look at trigonometric functions, their graphs, the trigonometric identities, and the unit circle. Finally, students are introduced to polar coordinates, parametric equations, and limits.

#### Consumer Math





This course explains how four basic mathematical operations – addition, subtraction, multiplication, and division – can be used to solve real-life problems. It addresses practical applications for math, such as wages, taxes, money management, and interest and credit. Projects for the Real World activities are included that promote cross-curricular learning and higher-order thinking and problem-solving skills.

#### **Financial Mathematics**

Financial Algebra is designed to instruct students in algebraic thinking while also preparing them to navigate a number of financial applications. Students will explore how algebraic knowledge is connected to many financial situations, including investing, using credit, paying taxes, and shopping for insurance. In studying these topics, students will learn about the linear, exponential, and quadratic relationships that apply to financial applications. In addition, the course will help prepare students to tackle the wide variety of financial decisions they will face in life, from setting up their first budget to planning for retirement.

#### <u>SCIENCE</u>

This inquiry- and lab-based course is designed to support modern science curriculum and teaching practices. It robustly meets NGSS learning standards for high school .

Each lesson includes one or more inquiry-based activities that can be performed online within the context of the lesson. In addition, the course includes a significant number of hands-on lab activities. Approximately 40% of student time in this course is devoted to true lab experiences, as defined by the National Research Council (2006, p. 3).

Lab materials note: Most hands-on labs employ relatively-common household materials. A few labs require specialized scientific equipment or materials, such as a microscope, slides, or biological samples. These few specialized labs are optional but provide valuable laboratory experience.

# High School Earth and Space Science



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Content topics include scientific processes and methods, the universe, the Precambrian Earth, the Earth's materials and tectonics, the hydrosphere and atmosphere, and human interactions with the Earth's systems and resources.

#### Physics

Physics introduces students to the physics of motion, properties of matter, force, heat, vector, light, and sound. Students learn the history of physics from the discoveries of Galileo and Newton to those of contemporary physicists. The course focuses more on explanation than calculation and prepares students for introductory quantitative physics at the college level. Additional areas of discussion include gases and liquids, atoms, electricity, magnetism, and nuclear physics.

#### **Chemistry**

Content topics include atoms and elements, chemical bonding, chemical reactions, quantitative chemistry, molecular-level forces, solutions, and energy and changes in matter.

#### **Biology**

Content topics include cells, organ systems, heredity, organization of organisms, evolution, energy use in organisms, and the interdependence of ecosystems.

## **Biology with Virtual Labs**

Content topics include cells, organ systems, heredity, organization of organisms, evolution, energy use in organisms, and the interdependence of ecosystems. Note: Not required special equipments.

## **Integrated Physics & Chemistry**



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The lessons in this course employ direct instruction approaches. They include application and Inquiry-oriented activities that facilitate the development of higher-order cognitive skills, such as logical reasoning, sense-making, and problem solving.

## <u>HISTORY</u>

#### World History

In World History, learners will explore historical world events with the help of innovative videos, timelines, and interactive maps and images. Learners will develop historical thinking skills and apply them to their study of European exploration, the Renaissance the Reformation, and major world revolutions. They will also study World War I, World War II, the Cold War, and the benefits and challenges of living in the modern world.

#### World History Survey

In World History Survey, learners will study major historical events from early human societies through to the present day. Multimedia tools including custom videos as well as videos from the BBC, custom maps, and interactive timelines will help engage learners as they complete this year-long course. Topics of study include early civilizations, world religions, the Renaissance, the World Wars, and the globalized world of today.

#### World Geography

In an increasingly interconnected world, equipping students to develop a better understanding of our global neighbors is critical to ensuring that they are college and career ready. These semester-long courses empower students to increase their knowledge of the world in which they live and how its diverse geographies shape the international community. Semester A units begin with an overview of the physical world and the tools necessary to exploring it effectively. Subsequent units survey each continent and its physical characteristics and engage students and encourage them to develop a global perspective.





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#### U.S. History

This course not only introduces students to early U.S. History, but it also provides them with an essential understanding of how to read, understand, and interpret history. For example, the first unit, The Historical Process, teaches reading and writing about history; gathering and interpreting historical sources; and analyzing historical information. While covering historical events from the founding events and principles of the United States through contemporary events, the course also promotes a cross-disciplinary understanding that promotes a holistic perspective of U.S. History.

#### U.S. Government (1 semester)

The interactive, problem-centered, and inquiry-based units in U.S. Government emphasize the acquisition, mastery, and processing of information. Semester A units include study of the foundations of American government and the American political culture, with units 2 and 3 covering the U.S. constitution, including its roots in Greek and English law, and the various institutions that impact American politics.

## Economics (1 semester)

This course covers basic economic problems such as scarcity, choice, and effective use of resources. It also covers topics on a larger scale such as market structures and international trade. It particularly focuses on the US economy and analyzes the role of the government and the Federal Reserve System.

## Applied Medical Terminology A/B

Built on the same sound pedagogy and proven course design methodologies as all of our courses, Medical Terminology helps students understand the structure and meaning of medical terms and identify medical terminology associated with various body systems. As the health care industry becomes more and more complex, developing expertise in accurately and efficiently identifying medical terms and their specific



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application is essential to a growing variety of health care careers. This course begins to prepare your students for those careers.

#### Audio Video Production 1 A/B

This course is designed to enable all students at the high school level to learn the basics of audio video production. The course will help the students develop an understanding of the industry with a focus on pre-production, production, and post-production audio and video activities. The course is based on Career and Technical Education (CTE) standards designed to help students develop technical knowledge and skills needed for success in the audio video production industry.

#### Audio Video Production 2 A/B

This course is designed to enable students at high school level to develop the knowledge and skills related to audio video techniques that they can use in their careers. This course discusses the elements of audio video production, preproduction activities, media production techniques, and postproduction activities.

#### Audio Video Production 3 A/B

This course is designed to enable all students at the high school level to students understand the basic concepts in audio video manufacturing. Students will learn about preproduction techniques, advanced production techniques, advanced post-production techniques, mastering production techniques, special effects and animation, careers, and audio video production laws. The course is based on Career Technical Education (CTE) standards designed to help students prepare for entry into a wide range of careers in audio video production.

## **Business Information Management A/B**

This course is designed to enable students at high school level to develop information management skills that they can use during in their careers in business organizations.







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This course discusses career opportunities available in Business Information Management, computing technology for business, connecting through the internet, working with documents, working with spreadsheets, working with a presentation program, working with databases, web page design, and project management. The course is based on Career Technical Education (CTE) standards designed to help students develop technical knowledge and skills needed for success in the business information management industry.

#### **Career Explorations**

The 21 lessons and additional activities in this one-semester course are fundamental to ensuring career readiness on the part of your students. Covering such essentials as developing and practicing a strong work ethic, time management, communication, teamwork, and the fundamentals of workplace organizations, Career Explorations develops not just essential skills, but the confidence in themselves and their abilities to present themselves that your students need as they prepare to embark on their chosen careers.

#### Certified Nurse Aide A/B

The course is designed to enable students to learn the key skills and information that they need to work as certified nurse aides. The course will help students develop an understanding of the human body, physical and nutritional needs, mental health needs and teach them to provide culturally competent and quality care to clients in a safe and healthy environment. The course is based on the NNAAP Exam syllabus and is designed to prepare students to take the exam and become certified nurse aides.

The course has animations and videos that demonstrate key skills that students must acquire to work as nurse aides. The practice test at the end of the course gives students practice on the written exam that they'll need to give to become certified nurse aides.

#### Child Development & Parenting A/B



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As adulthood and its accompanying responsibilities become closer for many of your students, this one-semester course with 12 lessons introduces them to the basics of parenting. Students will learn the nuances of parenting including learning about prenatal and postnatal care and gain insights on the nurture of children. Students will also learn about the importance of positive parenting skills, parent-child communication, and ways to use community resources for effective parenting. Activities will help your students connect leading research to real-life experience.

#### CompTIA A+ 220-1001

This course is focused on the exam objectives of CompTIA A+ 220-1001. Students will learn about computer hardware and networking, including concepts related to virtualization and cloud computing. Students will learn about mobile devices and their features. Students will learn how to identify and troubleshoot problems related to hardware, networking, printers, storage devices, and mobile devices.

Unit activities in the course help students to develop and apply critical thinking skills.

Animations and screenshot-based slideshows included in the lesson keep students engaged. Students can understand technical concepts easily.

Simulations provide students a real computer environment to practice various procedural steps. These simulations emulate the CompTIA A+ performance-based questions.

Practice test at the end of the course help students to practice questions that are parallel to the CompTIA A+ 220-1001 certification exam.

#### CompTIA A+ 220-1002

This course is focused on the exam objectives of CompTIA A+ 220-1002. Students will learn about the features and tools in Windows, Mac/Linux, and mobile operating systems. Students will learn about security, cloud computing, and operational procedures. Students will also learn how to use remote access tools and identify and troubleshoot problems related to operating systems, security, and mobile applications.



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Unit activities in the course help students to develop and apply critical thinking skills.

Animations and screenshot-based slideshows included in the lesson keep students engaged. Students can understand technical concepts very easily.

Simulations provide students a real computer environment to practice various procedural steps. These simulations emulate the CompTIA A+ performance-based questions.

Practice test at the end of the course help students to practice questions that are parallel to the CompTIA A+ 220-1002 certification exam.

## CompTIA Network+ Certification (N10-007)

This course is a two-semester course focused on the exam objectives of CompTIA Network+ certification N10-007. Students will learn about the types of networks, network topologies, the Open Systems Interconnection (OSI) model, Internet protocol addresses, routing, and switching. Students will learn about wireless technologies, virtualization, cloud concepts, and network services. Students will learn about network cables, connectors, network devices, network storage technologies, and wide area networks. Students will learn about network documentation, network monitoring, and remote access methods. Students will learn about business continuity, disaster recovery methods, physical and logical security methods. Students will learn how to secure a wireless network. Students will also learn about network attacks, and various device hardening and mitigation techniques. Finally, students will learn how to troubleshoot issues related to wired connectivity, wireless connectivity, and network services.

Unit activities in the course help students to develop and apply critical thinking skills. Animations included in the lesson keep students engaged. Students can understand technical concepts very easily. Simulations provide students a real computer environment to practice various procedural steps. These simulations emulate the CompTIA Network+ performance-based questions. Practice Test at the end of the course help students to attempt questions that are similar to CompTIA Network+ certification N10-007 exam.





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#### Computer Programming 1 A/B

Part of the Courseware Career and Technical Education (CTE) Library, Computer Programming combines engaging online and offline activities in a rigorous onesemester course for your high school students who may be aspiring to technical careers. Building on lessons covering the software development lifecycle and software development methodologies, the course uses online discussions, activities, and lessons to lead your students through additional key topics such as quality control, system implementation, and maintenance and the increasingly important issue of system security.

#### Computing for College & Careers A/B

This course is designed to enable students at the high school level to develop basic computer skills that they can use during their college education and also in their careers. This course is designed to enable all students at the high school level to develop the critical skills and knowledge that they will need to be successful in careers throughout their lives. The course is based on Career and Technical Education (CTE) standards designed to help students prepare for entry into a wide range of careers and/or into postsecondary education.

#### Culinary Arts A/B

This course is designed to enable all students at the high school level to learn the basics of culinary arts. Students will trace the origin and development of the culinary arts; they will also discuss important contributions made by chefs, notable culinary figures, and entrepreneurs. They'll analyze how trends in society influence trends in the food service industry. In addition, they'll examine the social and economic significance of the food service industry and cover topics in health, sanitation, culinary skills, and more. The course is based on Career and Technical Education (CTE) standards designed to help students prepare for entry into a wide range of careers in the culinary industry.





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#### Digital & Interactive Media A/B

This is an effective and comprehensive introduction to careers in the rapidly expanding world of digital art. The course covers creative and practical aspects of digital art in 15 lessons that are enhanced with online discussions and a variety of activities. Beginning with a history of digital art, the course goes on to issues of design, color, and layout. While students will experience creation of digital art, they will also learn about converting traditional art to digital formats.

#### Drafting & Design A/B

From the history of drafting and design to a look at the latest in the industry's latest computer-aided tools, this course gives your students a comprehensive look at a dynamic and in-demand career. With 14 effective lessons and five engaging activities that lead to mastery of the course content, the course review and end of course assessment help ensure that mastery. The course features skill-embedded content that connects student learning to real-life experiences.

#### **Electronic Communication Skills**

This semester-long course is based on Career and Technical Education (CTE) standards to help students prepare for entry into a wide range of careers and/or into postsecondary education. It is designed to enable students at high school level to develop electronic communication skills that they can use in their careers.

#### Entrepreneurship A/B

This course is based on Career Technical Education (CTE) standards designed to help students understand the roles and attributes of an entrepreneur, marketing and its components, selling process, and operations management. This course discusses entrepreneurship and the economy, marketing fundamentals, managing customers, production and operations management, money, and business law and taxation.







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#### **Essential Career Skills**

This course helps students understand and practice critical life and workplace readiness skills identified by employers, state boards of education, and Advance CTE. These skills include personal characteristics, such as positive work ethic, integrity, selfrepresentation, and resourcefulness, as well as key people skills, communication skills, and broadly-applicable professional and technical skills. These skills are universally valuable but sometimes assumed or glossed over in more career-specific courses. For that reason, this provides students with a solid foundation in their career studies.

#### **Food Handler and Food Manager Certifications**

The Food Handler and Food Manager Certifications course helps students learn what they need to know to be successful in the National Restaurant Association (NRA) ServSafe® Food Handler and Manager Certification exam. The five units of the course arm students with the knowledge and skills to provide safe food to customers as a food handler or a food manager. Key topics include the principles of food safety, hygiene practices, time and temperature control, food procedures from initial purchasing to final serving, procedures for cleaning and sanitizing, and food service inspection protocols.

#### Foundations of Green Energy

This is a two-semester CTE course for high school students who want to understand the rapidly growing and evolving energy field, with special emphasis on electrical energy and on new and emerging energy technologies. The course is designed to address state standards in the Energy and STEM domains as well as the Energy Industry Fundamentals Certificate Program (EIFCP) standards developed by the Center for Energy Workforce Development (CEWD). Unit topics include the energy industry; energy science and efficiency; electrical generation, transmission, and distribution; conventional, alternative, and emerging energy sources; health, safety, and security issues; and energy careers and pathways, from entry level to professional.

#### **Game Development**





Are any of your students gamers? That's what we thought. In this course, they'll learn the ins and outs of game development to prepare them for a career in the field. Whether it is the history of video games, character development, mobile game design, user interface design, social gaming, or the principles of development design and methodologies, this 20-lesson course covers it all. As you might guess, games are included in the course to enhance the learning experience and help assess student progress. While fun and highly engaging, the course focuses on laying a strong foundation for a career in game development.

#### Graphic Design & Illustration A/B

This course will help students develop an understanding of the industry with a focus on topics such as history of graphic design, types of digital images, graphic design tools, storing and manipulating images, design elements and principles, copyright laws, and printing images. The course is based on Career Technical Education (CTE) standards designed to help students develop technical knowledge and skills needed for success in the graphic design industry.

#### Health Science 1 A/B

The course is based on Career and Technical Education (CTE) standards to help students develop technical knowledge and skills needed for success in the health science industry. Semester A is designed to enable all students at the high-school level to understand the basic structure and function of the human body and it will help the students identify and analyze the diseases and medical procedures related to each body system. Semester B will help the students develop an understanding of biomolecules such as proteins, carbohydrates, and lipids; biological and chemical processes; and various diseases that affect the body.

## Health Science 2 A/B

This course is designed to enable all students at the high-school level to learn the basics of health science. The course will help the students develop an understanding of the





academic qualifications, personal skills, training, and use of healthcare tools required to work in the healthcare industry. The course is based on Career and Technical Education (CTE) standards to help students develop technical knowledge and skills needed for success in the healthcare industry.

#### **International Business**

International Business is a one-semester course that covers the fundamentals of international business, international business transactions, and how a business can go global. In this course, students will learn about what international business is and how globalization has impacted it. They will learn about global trade and investment policies, and politics and laws that impact international business. Students will also learn about the International Monetary Fund, foreign exchange and global capital markets, key world economies, and economic cooperation across countries. The course also covers strategies to enter the international market along with factors like strategic planning, marketing, global sourcing, and logistics, human resource management, and employability skills. Students also learn about the cultural elements involved in conducting international business. Online discussions and course activities require students to develop and apply critical thinking skills, while the included games appeal to a variety of learning styles and keep students engaged.

## Introduction to Android Mobile App Development

This course is designed to introduce students to the process involved in creating a mobile app. Students learn about history of and upcoming trends in mobile app development. They explore career options in mobile app development and describe skills and training required for mobile app development. They also describe the types of apps available in the market. Moreover, they learn about platforms for developing Android mobile apps. Further, they learn about the Android development environment. Finally, they create the user interface of an app and make it interactive in Android Studio.

#### Introduction to Criminology



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Introduction to Criminology is a one-semester course with 14 lessons that cover the theories related to criminology. The target audience for this course is high school students. This course covers subject areas such as: classical theory, positivist theory, punishing offenders, routine activity theory, labeling theory, social disorganization theory, peacemaking criminology, and many more.

#### Introduction to Cybersecurity

This Elective course introduces students to the field of cybersecurity, focusing primarily on personal computer use and vulnerabilities while also highlighting the wider scope of cybersecurity from a societal and career perspective. Specific topics include computer security, VPN and wireless security, risk management, and laws, standards, and ethics related to cybersecurity.

#### Introduction to Finance

This course is designed to enable students at high school level to develop financial skills that they can use during in their careers in business organizations. Financial literacy is an increasingly essential capability as students prepare for the workforce, and this 18lesson course provides the information they need to determine if a career in finance is right for them. The course uses games and online discussions to effectively facilitate learning, while introducing your learners to a variety of topics, including investment strategies, money management, asset valuation, and personal finance. The course is based on Career Technical Education (CTE) standards designed to help students develop technical knowledge and skills needed for success in the finance industry.

#### Introduction to iOS Mobile App Development

This course is designed to introduce students to the process involved in creating an app. Students learn about history of and upcoming trends in mobile app development. They explore career options in mobile app development and describe skills and training required for mobile app development. They also describe the types of apps available in the market. Moreover, they learn about various platforms for developing iOS mobile









apps. Further, they learn about the iOS development environment. Finally, they create the user interface of an app and make it interactive in Xcode.

#### Marketing, Advertising, & Sales

Issues in marketing, advertising, and sales promotion are evolving rapidly in an increasingly digital environment. This course effectively helps your students prepare for a career in that environment through a comprehensive look at essential marketing principles, interactive tools and channels, and the growing impact of data in marketing and advertising. Simple to manage and easy to customize, the course provides an overview of all of the fundamental topics necessary to effectively put your students on a career path that unleashes their creativity and develops and leverages their critical thinking skills.

#### **Networking Fundamentals**

This course is a two-semester course focused on the concepts of networking. Students will learn about careers in networking and employability skills required for a career in networking. Students will learn about the types of networks, network topologies, the Open Systems Interconnection (OSI) model, Internet protocol addresses, and Internet of Things (IoT) technologies. Students will learn about networking devices, cables, media, and connectors. Students will learn to set up a small wired network. Students will learn about network security threats and preventive measures to secure a network. This course also covers network planning, administration, troubleshooting, and maintenance. Students will learn about wireless networking standards and access methods. Students will learn to set up and secure a wireless network. Students will learn about virtual private networks and cloud computing. Students will also learn to troubleshoot issues related to wired and wireless networks.

Unit activities in the course help students to develop and apply critical thinking skills.

Animations included in the lesson keep students engaged. Students can understand technical concepts very easily.







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Simulations provide students a real computer environment to practice various procedural steps.

#### Principles of Agriculture, Food, & Natural Resources A/B

Throughout this course, your students will learn about various career options in the agriculture, food, and natural resources industries. They will learn about technology, safety, and regulatory issues in agricultural science. They will also learn about some topics related to agriculture, such as international agriculture and world trade, sustainability, environmental management, research, development, and future trends in the industry. The course helps students navigate the rising demand for sustainable food sources while also meeting the challenge of producing higher yields to feed a growing world.

#### Principles of Architecture and Construction

This interactive course empowers students with the knowledge to appreciate and evaluate career opportunities in architecture and construction. With an emphasis on developing critical thinking skills, this one-semester course includes a variety of activities as students learn about structures and loads, materials and costs, urban design, and other aspects of these fascinating career opportunities. This easy-tomanage course will help build a solid foundation for their career options.

#### Principles of Arts, Audio/Video Technology, & Communications A/B

This course appeals to your students' familiarity with a variety of sensory inputs and stimulus. With an emphasis on visual arts, the 14 lessons introduce learners to careers in design, photography, performing arts, fashion, and journalism, among others. This engaging course covers inherently engaging topics that will stimulate your students as they consider careers in which the arts, technology, and communications intersect.

#### Principles of Business, Marketing, & Finance A/B



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This course has a broad application for almost every career path that your students might choose. This course supplies both essential career skills and life skills. Designed for early high school students, the course offers you the flexibility to customize it to the unique needs of your program and your students. Interactive games and other engaging online and offline activities make practical real-life application of essential business principles understandable useful in the daily lives of your students and in the careers that they choose.

#### Principles of Education & Training A/B

This course is designed to enable all students at the high school level to learn the basics of education and training. Students will learn about the various trends and factors that influence the education industry. This course introduces various career opportunities in the field of education. The units in this course include personal and professional skills needed in various education careers, child growth and development, child health, delivering instruction, and technology in education. The course is based on Career Technical Education (CTE) standards designed to help students develop technical knowledge and skills needed for success in the education industry.

## Principles of Engineering & Technology A/B

This easy-to-manage course provides students with essential STEM knowledge and an effective overview of STEM careers. The course's 15 lessons are interspersed with activities and online discussions that engage learners and promote understanding and achievement. Topics covered include biotechnology, mechanics, and fluid and thermal systems. The concluding lesson provides a valuable overview of the overall engineering design process.

## Principles of Government & Public Administration A/B

This course is designed to enable all students at the high school level to learn the basics of government and public administration. Students explore career opportunities in the field of government and public administration. They also learn about the career-related









skills, such as job acquisition skills, reading and writing, and mathematics they need to possess as professionals in this field. They learn about the safe and healthy working conditions necessary in the field of government and public administration. This course covers topics such as: the influence of geography and technology, and networking and communication as they relate to government and public administration. The course is based on Career and Technical Education (CTE) standards designed to help students prepare for entry into a wide range of careers in government and public administration industry.

#### Principles of Health Science A/B

With an engaging and interactive instructional approach, this rigorous course provides your students with a comprehensive overview of health science topics and careers. Health science professionals are in increasing demand and of increasing interest, and this semester-long course is an effective way to introduce students to the wide array of health science careers. Beginning with medical terminology, the course includes an overview of physiology and human homeostasis and more.

#### Principles of Hospitality & Tourism A/B

The hospitality and tourism industry offers a dynamic career path that will pique the interest of many of your students. This course emphasizes learning the practical aspects of the industry and promotes the development of critical-thinking skills required in real-world situations. The 14-lesson course will introduce your students to the basics of hospitality and tourism and will help them evaluate their skills and prepare for a career in this growing and exciting industry.

## Principles of Human Services A/B

This course is designed to enable all students at the high school level to develop the critical skills and knowledge necessary in the human services industry. Students will learn about various personal characteristics that they need to demonstrate in the workplace, such as integrity, and positive work ethics. This course covers topics such









as employability skills, counseling and mental health services, and consumer services. The course is based on Career Technical Education (CTE) standards designed to help students prepare for entry into a wide range of careers in the human services field.

#### Principles of Information Technology A/B

Building on the fundamentals learned in Information Technology 1A, this course takes the next steps in preparing learners for a career in information technology. Covering software, hardware, and implementation topics, the course also addresses the security and ethical issues that your students will face in an IT career. Combining lessons, online and offline activities, and interactive discussions, the course will provide a practical yet cutting edge look at the issues faced by leading IT professionals today and in the future.

## Principles of Law, Public Safety, Corrections, & Security A/B

For many reasons, high school students are drawn to learning about the careers addressed in this course. This course includes 15 lessons that help students learn about careers that make a powerful impact in all of our lives. From criminal law to every phase of the trial process, the course moves on to include lessons on the correctional system and the implications of legal ethics and the constitution.

## Principles of Manufacturing A/B

Principles of Manufacturing is a course comprising of 15 lessons to help your students understand various manufacturing processes, concepts, and systems, and to introduce them to the various career paths available to them in manufacturing. This course emphasizes STEM principles while also covering practical aspects of manufacturing such as marketing and regulatory issues, as well as issues related to launching and managing a manufacturing business.

# Principles of Transportation, Distribution, & Logistics A/B









In an increasingly interconnected world, this course will introduce your students to an industry that delivers what people want, when and how they want it. The TDL industry is essential to creating global economic growth through increasingly more efficient delivery of goods and services. This course will help to develop both the quantitative and qualitative skills and knowledge required for students to prepare themselves for a successful TDL career. The course addresses the relevant logistical and geopolitical issues that impact global trade.

#### **Professional Communications**

This course is designed to enable all students at the high school level to develop communication skills they will need to be successful in a profession. Students learn about the key aspects of the communication process. They learn to apply communication protocol and appropriate language skills in professional and social communication. Students also explore effective strategies to address diversity in communication. Finally, students familiarize themselves with reading, writing, speaking, and listening skills. This course covers topics such as commination in business organizations and technology for communication. The course is based on Career Technical Education (CTE) standards designed to help students prepare for communication in a wide range of professions.

#### Professional Photography A/B

Few recent technical innovations have changed an industry as fundamentally as digital photography has changed everything about the way we capture our lives in the way we take, edit, store, and share pictures. Digital Photography provides you with the flexibility to not only use it as an independent individual course or as a group or class course, but to also easily customize the course to the unique needs of your situation. The course combines 15 lessons with online discussions that promote the development of critical thinking skills as your students explore digital photography as an enriching activity or a career.



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#### **Robotics I A/B**

This two-semester course is focused on the concepts related to robots and how to construct a robot. Students will learn about the history and applications of robotics. Students will learn about the job opportunities and employability skills in the field of robotics. Students will also learn about the basic concepts of six simple machines, electricity, electronic circuits, Boolean algebra, magnetics, and their applicability to robotics. Students will apply safety procedures and construct a simple robot. Students will also learn about project management and engineering design process. Students will learn about the programming languages used in robotics. Students will create a simple robotic arm. Students will also construct a robot using programming. Student will learn about ethics and laws related to robotics. Students will also learn how to test and maintain a robot. Online discussions and unit activities require students to develop and apply critical thinking skills, while the included games appeal to a variety of learning styles and keep students engaged.

Required lab materials note: This course contains hands-on labs that employ relativelycommon household materials to provide a valuable laboratory experience. Please refer to the Student Syllabus or Teacher's Guide for a detailed list of required lab materials and options for purchasing kits.

#### Sports & Entertainment Marketing

This course is designed to enable all students at the high school level to develop skills they will need to be successful in sports, entertainment, and recreational marketing professions. Students learn about the structure of a business firm and financial statements. Students also learn about the basics of sports, entertainment, and recreation marketing. Finally, students explore essential career skills, such as teamwork and time management. This course covers topics such as marketing staples, mapping markets, marketing communication, and making the sale. The course is based on Career Technical Education (CTE) standards designed to help students prepare for entry into a wide range of careers in sports, entertainment, and recreational marketing field.

#### Virginia Networking Fundamentals



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This course is a one-semester course focused on the concepts of networking. Students will learn about careers in networking and employability skills required for a career in networking. Students will learn about the types of networks, network topologies, the Open Systems Interconnection (OSI) model, Internet protocol addresses, and Internet of Things (IoT) technologies. Students will learn about networking devices, cables, media, and connectors. Students will learn to set up a small wired network. Students will learn about network security threats and preventive measures to secure a network.

Unit activities in the course help students to develop and apply critical thinking skills.

Animations included in the lesson keep students engaged. Students can understand technical concepts very easily.

Simulations provide students a real computer environment to practice various procedural steps.

#### Web Technologies A/B

Whether they know it or not, almost all of your students have an interest in web design. This course takes them inside the essentials of web design and helps them discover what makes a site truly engaging and interactive. Lessons such as Elements of Design, Effects of Color, and Typography help them understand the elements of effective and dynamic web design. The course covers the basics of HTML, CSS, and how to organize content, and helps to prepare them for a career in web design.

