# High School Virtual Course Catalog



## Math

## Algebra 1 A/B

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.

## Algebra 2 A/B

Algebra 2 v7.0 is a completely re-designed course that offers 100% alignment to the Common Core State Standards for Mathematics. In addition to the emphasis on alignment, the new lessons in the course are designed to be shorter in length than lessons of previous versions, offering focused exploration of topics to make concepts more digestible for learners and intentionally grouped to reinforce connections. Practice questions are included with each lesson, including technology-enhanced items and explanations to assist learners in their understanding of the concepts. New features to support student mastery include worksheets for practice and guided notes to help learners record key takeaways as they move through the tutorial. The course is built around learner engagement, with more interactive lessons, videos that work through examples and model problem-solving skills, and experiences to support multi-modal learning and sense-making. Scaffolding pieces are included throughout the course to provide learners with opportunities to build on foundational skills as well as prepare for greater success by drawing learners' attention to common misunderstandings and articulating the big ideas that underpin learning. This fresh new look and feel for the course was inspired by educator feedback. Algebra 2 v7.0 reflects our commitment to standards alignment and putting the needs of educators and learners first in all aspects of course design.

#### Financial Mathematics A/B

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.

#### Geometry A/B

A comprehensive examination of geometric concepts, each lesson provides thorough explanations and builds on prior lessons. Step-bystep 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.

#### Precalculus A/B

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.

#### Advanced Calculus A/B

This course grounds the study of calculus in real-world scenarios and integrates it with the four STEM disciplines. The first semester covers functions, limits, derivatives and the application of derivatives. The course goes on to cover differentiation and ant differentiation, applications of integration, inverse functions, and techniques of integration.

## **Probability & Statistics**

This course is designed for students in grades 11 and 12 who may not have attained a deep and integrated understanding of the topics in earlier grades. Students acquire a comprehensive understanding of how to represent and interpret data; how to relate data sets; independent and conditional probability; applying probability; making relevant inferences and conclusions; and how to use probability to make decisions.

#### **ACT® Mathematics**

The ACT assesses high school students' general educational development and their ability to complete college-level work. Our course prepares students to take the test by learning the content ideas they will be tested on.

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### Social Studies

### World History A/B

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.

## U.S. History A/B

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.

#### Advanced U.S. History A/B

This course develops critical thinking skills by encouraging multiple views as students realized that there are often multiple accounts of a single historical event that may not be entirely consistent. Electronic discussion groups encourage collaboration, and a variety of practice activities are provided, from multiple choice actions to advanced interactions. Units include: The Historical Process; Early America; Revolutionary America; The Civil War; Populism and Progressivism; the emergence of the U.S. as a world power; and contemporary themes.

#### **Economics**

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.

## **U.S. Government**

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.

#### Personal Psychology 1: The Road to Self-Discovery

Self-knowledge is the key to self-improvement. More than 800,000 high school students take psychology classes each year. Among the different reasons, there is usually the common theme of self-discovery. Sample topics include the study of infancy, childhood, adolescence, perception and states of consciousness. The course features amazing online psychology experiments dealing with our own personal behavior.

## Personal Psychology 2: Living in a Complex World

This course enriches the quality of students' lives by teaching them to understand the actions of others. Topics include the study of memory, intelligence, emotion, health, stress and personality. This courses features exciting online psychology experiments involving the world around us.

#### **Social Issues**

Because the specifics of social issues change rapidly, this course is designed to have students discover contemporary and relevant perspectives on issues that may have been around for centuries. Students engage in significant research and each lesson ends with an essay assignment that encourages students to express their opinions. Topics include media, government, civil liberties, poverty, terrorism, crime, the environment, and many more.

### **History of the Holocaust**

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

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#### **Careers in Criminal Justice**

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

OR

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

From traffic laws to regulations on how the government operates, laws help provide society with order and structure. Our lives are guided and regulated by our society's legal expectations. Consumer laws help protect us from faulty goods; criminal laws help to protect society from individuals who harm others; and family law handles the arrangements and issues that arise in areas like divorce and child custody. This course focuses on the creation and application of laws in various areas of society.

## Science

## Biology A/B

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 biology. Content topics include cells, organ systems, heredity, organization of organisms, evolution, energy use in organisms, and the interdependence of ecosystems. 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. School laboratories may be used for these specialized labs or single-student Edmentum Lab Kits may be purchased from Ward's Science. Please refer to the Student Syllabus or Teacher's Guide for details on lab materials.

#### **Environmental Science A/B**

This course is designed to introduce students to the history of environmental science in the United States, ecological interactions and succession, environmental change, adaptation, and biogeochemical cycles. Students will learn about the importance of environmental science as an interdisciplinary field. They will describe the importance of biodiversity to the survival of organisms, and learn about ecological pyramids. They will discuss the effects of climate change and explore different types of adaptation. They will describe the steps of the water cycle, and discuss how carbon, oxygen, nitrogen, and phosphorous cycle in the global environment.

#### Chemistry A/B

This inquiry- and lab-based course is designed to support modern science curriculum and teaching practices. It robustly meets NGSS learning standards associated with high school chemistry along with additional concepts and standards typically included in a full-year high school chemistry course. Content topics include atoms and elements, chemical bonding, chemical reactions, quantitative chemistry, molecular-level forces, solutions, and energy and changes in matter. It also addresses additional concepts and standards typically included in a full-year high school chemistry course, including molar concentrations, acid base reactions, advanced stoichiometry, gas laws, and organic compounds. 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 an electronic balance (0.01g), graduated cylinders, test tubes, and chemical reagents. These few specialized labs are optional but provide valuable laboratory experience. School laboratories may be used for these specialized labs or single-student Edmentum Lab Kits may be purchased from Ward's Science. Please refer to the Student Syllabus or Teacher's Guide for details on lab materials.

#### Advanced Chemistry A/B

Advanced Chemistry includes most of the 22 laboratory experiments recommended by the College Board to provide a complete advanced experience in a blended environment. More than 25 percent of the online lesson modules are inquiry-based and employ online simulations, data-based analysis, online data-based tools, and —kitchen sink labs that require no specialized equipment or supervision. Many of the lessons include significant practice in stoichiometry and other critical, advanced chemistry skills.

#### Physics A/B

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.

Lab materials note: None of the virtual labs require specialized laboratory materials or tools. Some virtual labs do allow students to make use of common, household items—such as paper and a pencil—if they choose.

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#### **Anatomy**

In this course students will explore the anatomy or structure of the human body. In addition to learning anatomical terminology, students will study and the main systems of the body- including integumentary, skeletal, muscular, circulatory, respiratory, digestive, reproductive, and nervous systems. In addition to identifying the bones, muscles, and organs, students will study the structure of cells and tissues within the body.

### **Physiology**

In this course, students will examine the functions of the body's biological systems--including skeletal, muscular, circulatory, respiratory, digestive, nervous, and reproductive systems. In addition to understanding the function of each system, students will learn the function of cells, blood, and sensory organs, as well as study DNA, immunity, and metabolic systems.

### **Astronomy: Exploring the Universe**

Why do stars twinkle? Is it possible to fall into a black hole? Will the sun ever stop shining? Since the first glimpse of the night sky, humans have been fascinated with the stars, planets, and universe that surrounds us. This course will introduce students to the study of astronomy, including its history and development, basic scientific laws of motion and gravity, the concepts of modern astronomy, and the methods used by astronomers to learn more about the universe. Additional topics include the solar system, the Milky Way and other galaxies, and the sun and stars. Using online tools, students will examine the life cycle of stars, the properties of planets, and the exploration of space.

#### **ELA**

## English 09 A/B

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 skillsbased 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. 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 10 A/B

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.

#### English 11 A/B

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 A/B

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 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.

#### Advanced English Lit & Comp A/B

Each unit of Advanced English Literature and Composition is based on a researched scope and sequence that covers the essential concepts of literature at an AP level. Students engage in in-depth analysis of literary works in order to provide both depth and breadth of coverage of the readings. Units include Close Analysis and Interpretation of Fiction, Short Fiction, the Novel, and Poetic Form and Content. Writing activities reinforce the reading activities and include writing arguments, analysis, interpretation, evaluation, and college application essays.

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### **Creative Writing**

This course is designed to get students to pursue creative writing as a vocation or as a hobby. To that purpose, it exposes them to different genres and techniques of creative writing, as also the key elements (such as plot and characterization in fiction) in each genre. Great creative writing does not come merely by reading about the craft—one also needs ideas; a process for planning, drafting and revising; and the opportunity to experiment with different forms and genres. The lesson tutorials in this course familiarize students with the basic structure and elements of different types or genres of writing. 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 creative writing fields.

#### Mythology & Folklore

Introduction to Mythology and Folklore is a one-semester course with 15 lessons that discuss myths, legends, and folklore from around the world. This course covers subjects such as Mythology, Legend, Folklore, Gods and the Goddesses, natural events, and wonders of the world.

## **Public Speaking**

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

## World Language

#### Spanish 1 A/B

Spanish is the most spoken non-English language in U.S. homes, even among non-Hispanics, according to the Pew Research Center. There are overwhelming cultural, economic, and demographic reasons for students to achieve mastery of Spanish. Spanish 1A and B engage students and use a variety of activities to ensure student engagement and to promote personalized learning. These courses can be delivered completely online, or implemented as blended courses, according to the unique needs of the teacher and the students.

#### Spanish 2 A/B

Spanish 2A and B utilize three assessment tools that are designed specifically to address communication using the target language: Lesson Activities, Unit Activities, and Discussions. These tools help ensure language and concept mastery as students grow in their understanding and use of Spanish. Learning games specifically designed for language learning are used and can be accessed on a wide variety of devices.

#### Spanish 3 A/B

Spanish 3A and B take a unique approach by setting the lessons in each unit in a specific Spanish-speaking locale, immersing students in the language and in a variety of Hispanic cultures and issues. For example, Unit 5 in Semester B includes a discussion of the environmental issues in Argentina. Concluding the three-year cycle of Spanish courses, Spanish 3A and B effectively combine group and individual learning and offer activities and assessments to keep students engaged an on track..

#### Advanced Spanish A/B (EdOptions Academy Only)

The AP® Spanish Language and Culture course is an advanced language course in which students are directly prepared for the AP® Spanish Language and Culture test. It uses as its foundation the three modes of communication: interpersonal, interpretive and presentational. The course is conducted almost exclusively in Spanish. The course is based on the six themes required by the College Board: (1) global challenges, (2) science and technology, (3) contemporary life, (4) personal and public identities, (5) families and communities, and (6) beauty and aesthetics. The course teaches language structures in context and focuses on the development of fluency to convey meaning. Students explore culture in both contemporary and historical contexts to develop an awareness and appreciation of cultural products, practices, and perspectives. Students should expect to listen to, read, and understand a wide-variety of authentic Spanish-language materials and sources, demonstrate proficiency in interpersonal, interpretive, and presentational communication using Spanish, gain knowledge and understanding of the cultures of Spanish speaking areas of the world, use Spanish to connect with other disciplines and expand knowledge in a wide-variety of contexts, develop insight into the nature of the Spanish language and its culture, and use Spanish to participate in communities at home and around the world. The AP® Spanish Language and Culture course is a college level course. The intensity, quality, and amount of course material can be compared to that of a third-year college course.

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#### **Business**

## **Accounting A/B**

The Bureau of Labor Statistics identifies accounting as one of the best careers for job growth in the next decade. This course empowers high school students with the essential skills they need to understand accounting basics. Lessons include Account Types (assets, liabilities, expenses, etc.), Fundamentals of Bookkeeping, Financial Statements, and Careers in Accounting. Engaging and relevant, this course particularly helps both those students with an accounting career orientation, and those in need of an overview of essential accounting principles.

### 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.

#### 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.

#### 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.

#### 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 relatively-common 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.

#### PE

#### Health

This course is based on a rigorously researched scope and sequence that covers the essential concepts of health. Students are provided with a variety of health concepts and demonstrate their understanding of those concepts through problem solving. The five units explore a wide variety of topics that include nutrition and fitness, disease and injury, development and sexuality, substance abuse, and mental and community health.

#### First Aid & Safety

In this course, students learn and practice first aid procedures for a variety of common conditions, including muscular, skeletal, and soft tissue injuries. In addition, students learn how to appropriately respond to a variety of emergency situations. They also learn the procedures for choking and CPR for infants, children, and adults. In addition to emergency response, students will explore personal, household, and outdoor safety, and disaster preparedness.

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## **Group Sports**

This course provides students with an overview of group sports. Students learn about a variety of sports, yet do an in-depth study of soccer, basketball, baseball/softball, and volleyball. Students learn not only the history, rules, and guidelines of each sport, but practice specific skills related to each sport. Students also learn about sportsmanship and teamwork. In addition, students study elements of personal fitness, goal setting, sport safety, and sports nutrition. Students conduct fitness assessments and participate in regular weekly physical activity.

## **Strength Training**

This one-semester course by Carone Fitness focuses on the fitness components of muscular strength and endurance. Throughout this course students establish their fitness level, set goals, and design their own resistance training program. They study muscular anatomy and learn specific exercises to strengthen each muscle or muscle group. Students focus on proper posture and technique while training. They also gain an understanding of how to apply the FITT principles and other fundamental exercise principles, such as progression and overload, to strength training.

#### **Personal Health & Fitness**

This combined health and PE course provides students with essential knowledge and decision-making skills for a healthy lifestyle. Students will analyze aspects of emotional, social, and physical health and how these realms of health influence each other. Students will apply principles of health and wellness to their own lives. In addition, they will study behavior change and set goals to work on throughout the course. Other topics of study include substance abuse, safety and injury prevention, environmental health, and consumer health.