

FINE ARTS

AP ART HISTORY (1 credit)

Grades: 12

The AP Art History course is a yearlong survey of art and architecture across centuries, cultures, and styles. In this course students will cover art and architecture created from the Ancient World to the 20th Century and beyond.

They will develop an appreciation and understanding of art and architecture using these seven key concepts: Identification and Attribution, Visual Analysis, Contextual Analysis, Finding Meaning, Interdisciplinary Awareness, Reading Skills, and Writing Skills. By using these concepts, students will be able to identify works of art, artists, and styles.

AP Exam: Exam fees are to be paid by the student. The individual school district orders the exam on behalf of the student and administers it.

ART APPRECIATION (.5 credit)

Grades: 9-12

What makes an artwork a masterpiece? Why do artists create art? What is the difference between Rococo and Art Nouveau? In this course, students will discover the answers to these questions and more. We examine the elements of art and principles of design, and explore how artists have used these elements and principles in the creation of art for centuries.

Major Concepts: Elements of Art & Principles of Design, Ancient Art, Aegean, Greek, Etruscan, and Roman Art, Medieval Art, The Renaissance to Rococo, Pre-modern Art, Modern Art, Modernism and Post-modernism

ART HISTORY (.5 credit)

Grades: 9-12

This Art History course integrates the four components of art study: art production, historical and cultural context, critical process and aesthetic process. Students will be able to identify and describe art from prehistoric times to modern time. Throughout this course, students will discuss various artworks, research artists, and create documents and presentations demonstrating concepts learned.

The following are Enduring Understandings of this course:

- Viewing and creating works of art involves a deliberate process of making decisions and judgments.
- Art and architecture were influenced by emerging cultures and significant, and lasting artistic contributions have been made by the major civilizations.
- The rise of Christianity influenced art and artists in the period between the Roman Empire and the Renaissance.
- Significant changes in art techniques and purpose emerge during the Renaissance, Baroque and Rococo periods.
- Although art during the modern era is diverse and different from most earlier styles, modern artists are still influenced by art from the past.

ART IN WORLD CULTURE (.5 credit)**Grades: 9-12**

Art tells a story. Go on a journey of when humans began creating art in prehistoric times to ancient Roman, early Christian, and Medieval periods. Explore the artistic characteristics of the Renaissance, Americas, Baroque, Romantic, and more. Learn the elements and design principles of art, and about some of the greatest artists in the world, while creating your own art, both on paper and digitally. It's time to tell your story through art.

DIGITAL PHOTOGRAPHY (.5 credit)**Grades: 9-12**

Explore various photographic styles, themes, genres, and artistic approaches. Learn more about photojournalism and how to bring your photos to life, and using this knowledge, build a portfolio of your work to pursue a career in this field!

Required Materials: digital camera of 2 megapixels or more with a minimum 3x zoom lens. Digital zooms are permitted but not recommended. Various props for staging photographs. Student must have access to a computer in order to download the photo editing software.

MUSIC APPRECIATION (.5 credit)**Grades: 9-12**

Have you ever heard a piece of music that made you want to get up and dance? Cry your heart out? Sing at the top of your lungs? Whether pop, classical, or anything in between, music provides a powerful way for people to celebrate their humanity and connect with something larger than themselves. Music Appreciation: The Enjoyment of Listening not only will provide a historical perspective on music from the Middle Ages to the 21st century, but it will also teach you the essentials of how to listen and really hear (with a knowledgeable ear) the different music that's all around you. Learning how to truly appreciate sound and melody is the best way to ensure a continued love of this delightful art form.

BUSINESS

ACCOUNTING (1 CREDIT)**Grades: 10-12**

Course curriculum is designed to provide students a strong foundation in accounting principles. Students will learn what business transactions are and how accountants use a double-entry system (debits and credits) to keep track of these transactions. Next students will study the complete accounting cycle of recording transactions, preparing financial statements, and "closing the books" for small, single-owner service and merchandising businesses. This course prepares students for post-secondary accounting courses.

Required Materials: Excel software is required; Google Sheets is prohibited.

ADVERTISING & SALES PROMOTIONS (.5 credit)**Grades: 9-12**

What comes to mind when you think of "marketing"? Perhaps a familiar television jingle plays in your head? Or maybe you think of those irritating sales phone calls? There's no denying the sheer magnitude and power of the marketing industry. Every year companies spend approximately \$200 billion promoting their products

and services – and that’s just in the United States alone! You may be familiar with being on the receiving end marketing, but what’s it like on the other side? In Advertising and Sales Promotions, you’ll see how these marketing campaigns, ads, and commercials are brought to life and meet some of the creative folks who produce them. You’ll learn about different marketing career opportunities and discover ways to be part of this exciting, fast-paced industry.

BUSINESS COMMUNICATIONS (.5 credit)

Grades: 9-12

No matter what career you’re planning to pursue, excellent professional communication will be key to your success. Upgrade your abilities in speaking, listening, writing, using and reading body language, and communicating in teams and groups. Discover how to plan, create, and deliver business presentations and communicate through graphics. In no time, you’ll be communicating with confidence, stand out from your peers, and impress your employer.

BUSINESS LAW (.5 credit)

Grades: 9-12

Students learn about the American legal system. They examine ethics, court systems, criminal law, and law of torts. They examine how the court systems work together, and what misconduct results in going to court. It is important to also understand your consumer rights. As they progress through the course, they will also gain an understanding from a business perspective what is right and wrong business actions and employment laws. As an employee or employer it is important to understand the laws that protect the employee and employer. The study will focus on the formation of a business and the basic legal issues associated with each type of business.

BUSINESS OWNERSHIP I (.5 credit)

Grade: 9-12

Do you dream of a future where you can have creative freedom, working in an industry you love, where you can get up every morning excited about the day will bring? In this course, you’ll learn the skills you’ll need in order to take your dream and transform it into a successful business. You’ll explore foundations like generating ideas to qualifying opportunities, analyzing the market, and identifying skills for successful deployment. You’ll learn to keep your business rolling and growing through effective workplace leadership and training while incorporating technological innovations to keep your business competitive. Are you ready to turn your dreams into reality? Let’s get goaling!

BUSINESS OWNERSHIP II (.5 credit)

Grade: 9-12

You’ve defined your business and made a plan to launch your vision, and now, it’s time to turn that business into a well-oiled machine! In this course, you’ll familiarize yourself with tried-and-true strategies for success! You’ll distinguish market segments, develop the appropriate market mix, brand your business, create a top-notch customer service environment, and calculate financial factors for the crucial first year- and every year after! Owning a booming business doesn’t happen by accident. Let’s learn what it takes and execute on the essentials to turn your business vision into a reputable reality!

COLLEGE & CAREER READINESS (.5 credit)**Grades: 10-12**

Do you ever wonder what you will do after high school? This course will show you the educational and career opportunities available to you. You will learn how to get accepted and pay for college, how to find a job, and how to plan for a successful future.

ENTREPRENEURSHIP I: Introduction (.5 credit)**Grades: 9-12**

Starting a business is more than just having a good idea. Successful entrepreneurs know how to use and apply fundamental business concepts to turn their ideas into thriving businesses. Explore topics such as identifying the best business structure, business functions and operations, finance, business laws, regulations, and more! If you have ever dreamed of making a business idea a reality, take the time to establish a solid foundation of business skills to make your business dreams come true!

ENTREPRENEURSHIP II: Make Your Idea A Reality (.5 credit)**Grades: 9-12**

You have the business idea; now it's time to go from dream to reality. Throughout this course, you'll explore different topics representing the major parts of a business plan, such as risk, hiring, pricing, marketing, and more. By completing activities, you'll create a viable document you can use to help you start your business by the end of the course. Let's bring your dream to life!

EXCEL: OFFICE FUNDAMENTALS SERIES (.5 CREDIT)**Grades: 9-12**

Discover the real world uses of Microsoft Excel and its impact upon business, academic, and personal applications. Move from inserting and manipulating data, to working with tables, charts, graphs, and calculations.

Requirement: Microsoft Office Word 2019, or an Office 365 Subscription.

FASHION DESIGN (.5 credit)**Grades: 9-12**

In this course, you'll explore what it is like to work in the industry by exploring career possibilities and the background that you need to pursue them. Get ready to try your hand at designing as you learn the basics of color and design then test your skills through hands-on projects.

Requirement: Students must have access to a working sewing machine as they will use it to create an item. A sewing machine will NOT be provided by BOCES or student's district.

HOSPITALITY & TOURISM: Hotel & Restaurant Management I (.5 credit)**Grades: 9-12**

If you love working with people, a future in hospitality may be for you. In Part A of Hospitality and Tourism 2: Hotel and Restaurant Management, you will learn about what makes the hotel and restaurant industries unique. Learn about large and small restaurants, boutique and resort hotels, and their day-to-day operations. Evaluate the environment for these businesses by examining their customers and their competition. As well, you will discover trends and technological advances that makes each industry exciting

and innovative. In Part A, you can explore a variety of interesting job options from Front Desk and Concierge services to Maître'd and food service.

HOSPITALITY & TOURISM: Hotel & Restaurant Management II (.5 credit)

Grades: 9-12

Building upon the prior prerequisite course, students will embark on their journey to becoming managers in the hotel and restaurant industry by gaining knowledge and developing a variety of skills. Students will learn of different management styles, laws, and regulations that govern hotels and restaurants as well as how to develop job descriptions and business plans. In addition, students will learn how to create menus, advertise vacancies, perform interviews, and understand financials of the hotel or restaurant.

HOSPITALITY & TOURISM: Traveling the Globe (.5 credit)

Grades: 9-12

With greater disposable income and more opportunities for business travel, people are traversing the globe in growing numbers. As a result, hospitality and tourism is one of the fastest growing industries in the world. This course will introduce students to the hospitality and tourism industry, including hotel and restaurant management, cruise ships, spas, resorts, theme parks, and other areas. Student will learn about key hospitality issues, the development and management of tourist locations, event planning, marketing, and environmental issues related to leisure and travel. The course also examines some current and future trends in the field.

INTERIOR DESIGN (.5 credit)

Grades: 9-12

Do you have a flair for designing and decorating? If so, then let's learn how to turn your interests and skills into a career. Explore color, texture, trends, and styles over time, how homes are built, and "green" options for homes and businesses. Interior designers do it all—from planning the color scheme to choosing furniture and light fixtures—with the end goal of creating a space where people can live or work comfortably, safely, and happily.

INTERNATIONAL BUSINESS: Global Commerce in the 21st Century (.5 credit)

Grades: 9-12

Imagine meeting with suppliers at an office in Europe while calling your salesroom that's back in Asia. Imagine investing in foreign markets and visiting partners in exotic locales. With the evolution of current technology, our world is more connected than ever before, and the business community today is larger than ever. International Business: Global Commerce in the 21st Century will demonstrate just how you can gain the knowledge, skills, and appreciation to live and work in the global marketplace. You will begin to understand how both domestic and international businesses are affected by economic, social, cultural, political, and legal factors and what it takes to become a true manager of a global business in the 21st century.

INTRODUCTION TO BUSINESS (.5 credit)**Grades: 9-12**

This course introduces students to the basic business concepts that will help them understand how a business survives in today's economy and the role that consumers play in the same economy. Students will learn how to balance a checkbook, save for the future, and use credit wisely. Students will also learn how to create a resume and how to participate in a job interview.

KEYBOARDING & APPLICATIONS (.5 credit)**Grades: 9-12**

Keyboarding and Applications is a semester-long elective that teaches students keyboarding skills, technical skills, effective communication skills, and productive work habits. In this course, students will learn about proper keyboarding technique while building their accuracy and speed skills. Students will gain an understanding of computer hardware, operating systems, file management, and the Internet. In addition, they will apply their keyboarding skills and create a variety of business documents, including word processing documents and electronic presentations.

LEADERSHIP SKILLS DEVELOPMENT I (.5 credit)**Grades: 9-12**

In this course, students will acquire new power to succeed in high school, college, and life. Students will learn how to take action by pressing their Turbo Button, manage their time by staying in the Lasting Zone, chart their goals by creating a North Star, and many other proven leadership techniques developed by Mawi Learning, a leadership training organization that has worked with more than one million students. Whether students are struggling or already at the top of their game, Leadership Skills Development will give them new power to create the life of their dreams.

LEADERSHIP SKILLS DEVELOPMENT II (.5 credit)**Grades: 9-12**

Increase your confidence and build your social skills as you learn how to conquer peer pressure, social anxiety, and the unnecessary risks that can derail your future. In this class you'll discover how your "super-charged" teen brain really works, so you can make better decisions and achieve more. As you journey through this course you are inspired and coached by Mawi Asgedom, a Harvard graduate and leadership expert who has trained over one million students.

MANAGEMENT (.5 CREDIT)**GRADES: 9-12**

From the shift managers at small businesses to the CEOs of large companies, effective management is key to any organization's success. Explore foundational management concepts such as leadership, managing teams, entrepreneurship, global business, finance, and technology and innovation. Engage in a capstone that pulls all of the concepts you've learned together, allowing you to see how management ideas can be applied to a business case study. Get started with learning the fundamentals of successful management.

MARKETING FOUNDATIONS: Introduction (.5 credit)**Grades: 9-12**

Explore the fast-paced and exciting world of marketing! Learn about the role of marketing in business in addition to the basics of business management, customer service, and economics. Examine how to identify target markets, perform market research, and develop successful marketing strategies. Discover the legal and ethical considerations of business and marketing, along with the impact of government on business.

MEDIA & COMMUNICATIONS (.5 CREDIT)**Grades: 9-12**

From banner ads to billboards, newspaper articles, and Facebook feeds, people are constantly sharing ideas. This course looks at the many facets of mass media. Students will learn how the media shapes every aspect of our lives. We examine the role of newspapers, books, magazines, radio, movies, television, and the growing influence of Facebook, YouTube, and Twitter. Major Concepts: print media, electronic media, Internet, Social Media, Advertising, Media Law & Regulations.

OFFICE ADMINISTRATION I: Introduction (.5 credit)**Grades: 9-12**

Businesses worldwide and across every industry are always on the lookout for highly skilled administrative professionals to help their business be successful and thrive. Explore what it means to have effective verbal and written communication, speaking, and listening skills to work with diverse people and teams. Then dive into learning how to leverage various technology and software businesses use to stay connected and productive.

OFFICE ADMINISTRATION II: Running the Office (.5 credit)**Grades: 9-12**

You have learned some of the skills that an administrative professional must possess, but now it's time to take those skills to the next level! You will explore the responsibilities of an administrative professional to understand what a typical workday looks like and even what goes into searching for an administrative professional role: searching, applying, and (the most exciting part!) securing. Do you love the idea of being the glue in a successful business, helping everything run smoothly and properly? Then let's continue your journey into the career of an administrative professional!

PERSONAL & FAMILY FINANCE (.5 credit)**Grades: 9-12**

We all know money is important in life. But how important? In fact, the financial decisions you make today may have a lasting effect on your future. Rather than feeling anxious about money feel empowered by learning how to make smart decisions! Personal and Family Finance will begin the conversation around how to spend and save your money wisely, investing in safe opportunities and the days ahead. Learning key financial concepts around taxes, credit, and money management will provide both understanding and confidence as you begin to navigate your own route to future security. Discover how education, career choices, and financial planning can lead you in the right direction to making your life simpler, steadier, and more enjoyable.

POWERPOINT : OFFICE FUNDAMENTALS SERIES (.5 CREDIT)**Grades: 9-12**

Learn to create clean and professional presentations while also building your skills as a speaker, leader, and marketer! Create and format presentations while inserting multimedia, images, transitions, and animations to make a dynamic final product!

Requirement: Microsoft Office Word 2019, or an Office 365 Subscription.

SOCIAL MEDIA (.5 credit)**Grades: 9-12**

Do you have any social media accounts? Learn the ins and outs of such social media platforms as Facebook, Twitter, Pinterest, Google+, and more and how to use them for your benefit personally, academically, and, eventually, professionally. If you thought social media platforms were just a place to keep track of friends and share personal photos, this course will show you how to use these resources in much more powerful ways. **Requirement:** Student **MUST** have an active social media account. One of the following social media platforms is required: Facebook, Twitter, or Instagram

SPORTS & ENTERTAINMENT MARKETING (.5 credit)**Grades: 9-12**

Have you ever wished to play sports professionally? Have you dreamed of one day becoming an agent for a celebrity entertainer? If you answered yes to either question, then believe it or not, you've been fantasizing about entering the exciting world of sports and entertainment marketing. Although this particular form of marketing bears some resemblance to traditional marketing, there are many differences as well—including a lot more glitz and glamour! In this course, you'll have the opportunity to explore basic marketing principles and delve deeper into the multi-billion dollar sports and entertainment marketing industry. You'll learn about how professional athletes, sports teams, and well known entertainers are marketed as commodities and how some of them become billionaires as a result. If you've ever wondered about how things work behind the scenes of a major sporting event such as the Super Bowl or even entertained the idea of playing a role in such an event, then this course will introduce you to the fundamentals of such a career.

WORD: OFFICE FUNDAMENTALS SERIES (.5 CREDIT)**Grades: 9-12**

Learn to effectively and efficiently use one of the most common tools of business, school, and personal correspondence – Microsoft Word! You will learn not only how to create word-processing documents like letters and reports, but how to style them using fonts, colors and editing tools. Discover how to format documents, create tables, use bullets and numbering, and insert images.

Requirement: Microsoft Office Word 2019, or an Office 365 Subscription.

COMPUTER SCIENCE

AP COMPUTER SCIENCE A (1 credit)

Grades: 11-12

The AP® Computer Science A course is equivalent to the first semester of a college level computer science course. The course involves developing the skills to write programs or part of programs to correctly solve specific problems. AP® Computer Science A also emphasizes the design issues that make programs understandable, adaptable, and when appropriate, reusable. At the same time, the development of useful computer programs and classes is used as a context for introducing other important concepts in computer science, including the development and analysis of algorithms, the development and use of fundamental data structures, and the study of standard algorithms and typical applications. In addition an understanding of the basic hardware and software components of computer systems and the responsible use of these systems are integral parts of the course.

Technology Requirements: Students must have access to a computer system that represents relatively recent technology (PIII). Schools need to have Java and Bluj software already installed on a designated machine(s) before the course starts and enough memory in their lab machines (128 MB) so that students will be able to compile and run Java and BluJ programs efficiently.

AP Exam: Exam fees are to be paid by the student. The individual school district orders the exam on behalf of the student and administers it.

Pre-requisites: Algebra I is required. Algebra II is highly recommended. Prior coding experience is highly recommended.

FOUNDATIONS OF PROGRAMMING (.5 credit)

Grades: 9-12

Do you want to learn the skills required to be competitive in today's high tech workforce? Foundations of Programming (FoP) will teach students the fundamentals of programming using the computer language Python. The course provides students with the concepts, techniques, and processes associated with computer programming and software development. Students will also explore the many programming career opportunities available in this high-demand field.

Required Materials: A computer is required; tablets and Chromebooks can't be used for this course.

JAVASCRIPT (.5 credit)

Grades: 9-12

In this course, students will learn how to start programming with JavaScript. Students will learn the basics of JavaScript including testing, functions, objects, arrays, loops, conditional code, operators and syntax basics. Students will learn timing and animations, and how to debug. The class will conclude with a robust project that incorporates everything they learned in the semester.

Prerequisite: Student **MUST** take Web Design before taking this course.

PROGRAMMING WITH ALICE (.5 credit)

Grades: 9-12

Alice is an innovative 3D programming environment that makes it easy to create an animation for telling a story, playing an interactive game, or a video to share on the web. Alice is a free software tool designed to

be your first exposure to object-oriented programming. It allows you to learn fundamental programming concepts in the context of creating animated movies and simple video games. In Alice, 3-D objects (e.g., people, animals, and vehicles) populate a virtual world and you create a program to animate the objects. Alice is developed and supported at Carnegie-Mellon University with financial support from Oracle, Electronic Arts, Sun Microsystems, DARPA, Intel, Microsoft, NSF and ONR. The director of the project is Wanda Dann.

PROGRAMMING WITH SCRATCH (.5 credit)

Grades: 9-12

Learn to program with the visual computer programming language Scratch. Scratch was developed at MIT's Lifelong Kindergarten Group. It allows users to explore basic programming concepts while creating multimedia programs, games and simulations. This course will help users to learn basic programming concepts and problem solving skills and take a deeper dive into more complex concepts including variables, loops, string processing and lists.

Requirement: *Students under age 13 require parental/guardian permission and email address. A computer is required; tablets and Chromebooks can't be used. Students must be able to download files to be used with the web-based programming in Scratch.*

WEB DESIGN (.5 credit)

Grades: 9-12

In this course, students will learn how to design a beautiful and functional website. Students will learn how to take their design and translate it into a live website using Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS) programming languages. HTML5 and CSS3 will be the standard versions used in the class. Students will understand design components of websites, including the use of color, layout and when to use different techniques, typography rules, and the importance of imagery. At the conclusion of the course, students will present a website to the class. Upon completion of this course, each student will have hands-on experience creating a fully functioning website.

Requirements: Student will be required to create a free account with Neocities.org and use it throughout this course.

ENGLISH LANGUAGE ARTS

AP ENGLISH LANGUAGE AND COMPOSITION (1 credit)

Grades: 11-12

An AP course in English Language and Composition engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing. The college composition course for which the AP English Language and Composition course substitutes is one of the most varied in the curriculum.

AP Exam: *Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.*

Pre-Requisites: Teacher recommendation, English I, II (honors), with a B+ average

CONTEMPORARY NOVELS (.5 credit)

Grades: 9-12

For this course, students will read a set of novels and novellas that were written during the twentieth century and reflect themes common to contemporary literature, such as the ability of the human spirit to rise above seemingly-impossible circumstances. Through creative projects and writing assignments, students will identify and analyze each novel's themes and also compare and contrast the novels' treatment of common themes. Please note that, like most contemporary literature, the novels assigned for this course contain realistic situations and language. In addition to the novels listed, each student will read another contemporary novel of his or her choosing that the instructor must approve. MLA (Modern Language Association) documentation is required on all papers submitted. The following novels are read during this course.

- Picture Bride By Yoshiko Uchida
- Night By Elie Weisel
- To Kill a Mockingbird By Harper Lee
- Fallen Angels By Walter Dean Myers
- The Old Man and The Sea By Ernest Hemingway
- Rita Hayworth and Shawshank Redemption
By Stephen King

CREATIVE WRITING (.5 credit)

Grades: 9-12

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

ENGLISH 9 (1 credit)

Grades: 9

English for Grades 9 is an integrated curriculum. Each unit contains thematically related lessons in five domains: reading and the study of literature, reading informational text, writing, speaking and listening, and language study, which includes word knowledge and grammar skills. Topics are presented in ways that help young adolescents relate literacy skills to other aspects of their lives. Writing assignments include narrative, expository, and persuasive/argumentative modes and emphasize the use of and details and reasoning to support ideas. Speaking and listening lessons in Semester A emphasize collaborative discussion skills and peer review. Vocabulary development instruction is integrated into literature and informational text lessons. Each unit ends with an authentic assessment that presents students with a real-world scenario requiring some of the skills they learned in the unit.

Literature study in semester B focuses on the analysis of different forms of literature and on comparative studies of world literature and literature delivered in different media. Writing and informational text lessons guide students through the stages of research and demonstrate how to evaluate, integrate, and share the information gathered during research. Students are required to share their ideas and analysis using several different modes, including oral and multimedia presentations.

ENGLISH 10 (1 credit)

Grades: 10

English for Grades 10 is an integrated curriculum, with each unit consisting of thematically related lessons in five domains: analyzing literature, analyzing informational text, writing, speaking and listening, and language study, which includes word knowledge and grammar skills. An introductory lesson at the start of each unit helps students identify any areas of weakness and review those topics before starting the more challenging Grades 10 lessons. Writing assignments required in Semester A of this course include fiction, expository, and persuasive, and analytical modes, emphasizing the use of details, evidence, and reasoning to support ideas. Speaking and listening lessons in Semester A cover collaborative discussion skills, the peer review process, and how to plan and deliver informative speeches and presentations. Vocabulary development instruction is integrated into literature and informational text lessons. Each unit ends with an authentic assessment that presents students with a real-world scenario requiring some of the skills they learned in the unit.

Like semester A, semester B consists of integrated units focused on a theme or mode of study. Literature study in semester B focuses on the analysis of different forms of literature and as well as the evaluation of various modes and forms of writing. Writing and informational text lessons guide students through the stages of a rigorous research process and demonstrate how to evaluate, integrate, and share the information gathered during research. Students are required to share their ideas and analysis using several different modes, including oral and multimedia presentations.

ENGLISH 11 (1 credit)

Grades: 11

English for Grades 11 is an American Literature course, with units organized chronologically according to periods in literary history. As students read foundation works of literature and other historical documents written between 1600 and 1900, they'll review and extend skills in five domains: analyzing literature, analyzing informational text, writing, speaking and listening, and language study, which includes word knowledge and grammar skills. Each module or unit begins with a lesson that provides historical context for the era and introduces themes that emerged in the literature of that era. Each lesson provides students with an opportunity to review basic analysis skills before applying those skills to works of literature or key historical documents. Lessons focused on more difficult historical documents include activities that help students comprehend the complex ideas in these works.

Writing modes addressed in Semester A of this course include narrative, reflective, persuasive, and analytical modes. Assignments emphasize the use of details, evidence, and reasoning to support ideas; writing lessons include model essays that demonstrate key features of each mode. The speaking and listening lessons in

Semester A cover rhetoric, the peer review or writing workshop process, and performance skills. Vocabulary development instruction is integrated into literature and informational text lessons. Each unit ends with an authentic assessment that presents students with a real-world scenario requiring some of the skills they learned in the unit.

Semester B of English 11 consists of units focused on historical eras and literary movements of the 20th and 21st century, such as Naturalism, Imagism, the Harlem Renaissance, and Post-Modernism. Literature analysis lessons in semester B focus on the forms of literature that were most commonly written during the Twentieth Century and how the forms, styles, and techniques of that century inform literature written today. Students will also evaluate various modes and forms of language expression, including single media and multimedia messages. Writing and informational text lessons guide students through the stages of a rigorous research process and demonstrate how to evaluate, integrate, and share the information gathered during research. Students are required to share their ideas and analysis using several different modes, including oral and multimedia presentations.

ENGLISH 12 (1 credit)

Grades: 12

Students examine major works of literature organized into thematic units. Each unit contains poetry, short stories, and a novel that revolve around the theme for the unit. Themes include the self, relationships, alienation, choice, and death. As students read these works, they have the opportunity to reflect on these important themes by writing in multiple modes and creating cross-disciplinary projects.

“There is nothing either good or bad, but thinking makes it so” – Shakespeare

Welcome to the contemporary world literature course. In this course you will experience the novels, short stories, poetry, and non-fiction from countries around the world. You will discover that the writers in this course have ideas and lives as interesting as their work. You will discover many writers have unique writing styles, unique ideas, unique lives, and unique approaches to their art. You will also have the chance to do some unique work of your own. By reading contemporary work and some work of the 20th century you will also discover that “no matter what a writer’s origins, certain themes and events have been hard to run away from in the 20th and early 21st centuries.” As you read, it is my hope that you will come to an understanding that, “. . .reading literature from around the world is unlikely to teach you everything there is to know about a culture. But it may help. . .” Along this journey you will use technology, writing, reflection, vocabulary, research, and other academic and personal skills to help you learn to enter the world of your community, your country, and your world. As the poet Gwendolyn Brooks said, “I believe that we should all know each other, we human carriers of so many pleasurable differences. To not know is to doubt, to shrink from, sidestep or destroy.” So begin your own journey through the world, and do this by reading, writing about what you read, and experiencing the work of writers.

GOTHIC LITERATURE: Monster Stories (.5 credit)**Grades: 9-12**

It was a dark and stormy night, and the vampires, ghouls, and undead were on the prowl... Gothic Literature is riddled with the spooky, but did you know that this genre is so much more than a scary form of entertainment? In Gothic Literature, you'll learn about how some of the world's greatest authors from the 19th century through today used Gothic elements to tackle issues that needed serious attention: the class system, gender norms, racism, social injustice, and more! Grab your monster gear and explore why Gothic literature has retained its appeal even with today's audiences.

HARRY POTTER: A Study of Wizards, Witches, and Muggles (.5 credit)**Grades: 9-12**

Whether you are a first year Harry Potter fan, or a seventh, you will find magic in this course. The Harry Potter series is a cultural phenomenon that ignited the imaginations of young readers and introduced them to magical characters that they could grow up with. In this course, we will study the first three Harry Potter books as a coming-of-age story. We will study the characters, their development, and the various themes presented in the series. We will interpret the growth and development of the characters through their magical journeys and then analyze how their life experiences can relate to our own. Take a trip to Diagon Alley to gather your materials and dare to explore the magical world of wizards, witches, and muggles.

Literature required for this course:

- Harry Potter and the Sorcerer's Stone
- Harry Potter and the Chamber of Secrets
- Harry Potter and Prisoner of Azkaban

JOURNALISM (.5 credit)**Grades: 9-12**

Understanding the role of the free press in America helps us to be better informed and more able to analyze media. In this course, you will explore the history of journalism in the United States from its inception in the colonies and its key role in the first amendment, all the way up to present day issues regarding "right to know" and the changing landscape of journalistic media in the 21st century. You will acquire the skills and information needed to actively participate in the consumption, analysis, and creation of news media and will have the opportunity to investigate the constantly evolving career opportunities within the field of journalism.

THE LORD OF THE RINGS: An Exploration of the Films & Their Literary Influences (.5 credit)**Grades: 9-12**

The Lord of the Rings is one of the most popular stories in the modern world. In this course, you will study the movie versions of J.R.R. Tolkien's novel and learn about the process of converting literature to film. You will explore fantasy literature as a genre and critique the three Lord of the Rings films.

Required Materials: You will be required to own or have access to the standard (non-extended) versions of the three Lord of the Rings films. Cayuga-Onondaga BOCES will not provide the films for this course. If you do not already have access to these movies, you may consider other sources such as your local library.

- *The Lord of the Rings: The Fellowship of the Ring*
- *The Lord of the Rings: The Two Towers*
- *The Lord of the Rings: The Return of the King*

THEATRE STUDIES (.5 credit)

Grades: 9-12

Have you ever wondered how a play goes from the playwright's mind all the way into a multi-million dollar Broadway production? In this course, you'll learn the whole process! This course provides a thorough introduction to the theater by providing an overview of major topics in theater studies, with a blend of theoretical and practical lessons. In the first half of this course you will learn about the definitions of theater, theater history, and contemporary theatrical genres. The second half of the course will guide you through all of the elements of putting on a professional theatrical production. You will learn about the entire production process, from playwriting through opening night, including elements of technical theater, the rehearsal process, and audience response. Whether you're an aspiring actor, technician, director, or producer, or even just an avid theater-goer, this course is for you.

FAMILY AND CONSUMER SERVICES

HUMAN DEVELOPMENT and FAMILY STUDIES (.5 credit)

Grades: 9-12

Students in the Human Development and Family Studies course explore the basic information about human development, parenting roles and strategies, and functioning effectively within the family in today's changing and complex society. This course helps students to develop competencies related genetics, family types, and effective communication. They investigate the ways in which humans develop over their lifespan, human relationships, child care, and child abuse. Students also learn the importance of creating a nurturing and caring home environment.

LIFE SKILLS: Navigating Adulthood (.5 credit)

Grades: 9-12

What do you want out of life? How do you achieve your dreams for the future? These can be difficult questions to answer, but they don't have to be with the right tools. Learn more about yourself and prepare for the future through goal setting, decision making, surviving college and career, and how to become a valuable contributing member of society. It's your life; make it count!

FOREIGN LANGUAGES

AMERICAN SIGN LANGUAGE I (1 credit)

Grades: 9-12

Did you know that American Sign Language (ASL) is the third most commonly used language in North America? American Sign Language 1a: Introduction will introduce you to vocabulary and simple sentences, so that you can start communicating right away. Importantly, you will explore Deaf culture – social beliefs, traditions, history, values and communities influenced by deafness. In the second half of the course, you'll discover more of this language and its grammatical structures through expanding your vocabulary with

acquiring hundreds of new signs. Additionally, explore interesting topics like Deaf education and Deaf arts and culture, and learn about careers where you can use your ASL skills.

Requirement: Student is required to video record and submit himself/herself signing throughout the course.

AMERICAN SIGN LANGUAGE II (1 credit)

Grades: 9-12

It's time to move beyond introductory ASL signs and start forming more compelling signs for communication. Explore how expressions can enhance signs and lend dimension to conversations, while learning vocabulary for descriptions, directions, shopping, making purchases, and dealing with emergencies. will learn about sequencing, transitions, role-shifts, and future tenses. Discover how to tell a story and ask questions, benefiting with greater exposure to deaf culture. Speed, conversations, signing skills, and cultural awareness are characteristics of this course.

Requirement: Student must have successfully completed and passed American Sign Language I. Student is required to video record and submit himself/herself/themself signing throughout the course.

AMERICAN SIGN LANGUAGE III (1 credit)

Grades: 9-12

As you dive into more advanced ASL signing, including unique grammar features and advanced classifiers and locatives, you'll learn, compose, and present your new-found vocabulary and narratives by immersing yourself in Deaf culture and community. From opinions, slang, and idioms, to using technology and media that offers authentic Deaf perspectives. Explore how travel, cultural differences, and geography affect sign language. And gain a better understanding of Deaf culture by learning important events and examining topics such as education, science, and literature. Through discussing Deaf culture and experiences, you'll advance your signing skills by developing verb tenses, grammar, and syntax. Apply your language skills in real conversation activities and through opportunities to debate real issues. It's also time to explore the next steps in education and career opportunities for your new intermediate ASL skills.

Requirement: Student must have successfully completed and passed American Sign Language II. Student is required to video record and submit himself/herself/themself signing throughout the course.

FRENCH I (1 credit)

Grades: 9-12

A multi-media, game-based approach makes this introductory French course different from traditional approaches to language learning. Advanced teaching techniques are used to turn compelling adventures and activities into rigorous lessons in grammar and vocabulary. This course provides a solid foundation for reading, speaking, writing, and understanding French and cultivates a passion for the language through exposure to culture and dynamic experiences of real people and real places. This course also features adaptive learning technology that lets students select the learning style that's right for them.

Requirement: Student will need microphone and recording device capabilities on computer. Webcam is optional.

FRENCH II (1 credit)

Grades: 9-12

Students with a beginning foundation in French will see their skills soar through compelling lessons that give them access to content so interesting that they forget that they are learning French. This unique learning

methodology, which relies heavily on games and stories, works effectively to take students from a tentative understanding of French basics to a greater level of sophistication. This course concentrates on students' ability to articulate more and more complex thoughts and to understand authentic native language from a variety of enticing sources.

Prerequisite: French I online

Requirement: Student will need microphone and recording device capabilities on computer. Webcam is optional.

LATIN I (1 credit)

Grades: 9-12

There is a reason "all roads lead to Rome." Maybe it is because Romans built much of the ancient world's highway system. Maybe it is also because the Roman culture and Latin language laid the foundation for much of Western culture. In this course, students find out for themselves as they take their first steps on a lifelong journey of discovery.

Students improve their command of the English language by studying Latin. Students also gain a better understanding of today's laws and culture by getting into the Roman mind. Latin I is the most comprehensive way to begin.

The purpose of this course is to give students a foundation in Latin grammar and vocabulary. This course also acquaints students with Olympic gods and with the everyday life of the typical Roman. The course sets the students' feet on a journey as big as their imagination, with a passport to some of the world's most exciting places.

Requirement: Student will need microphone and recording device capabilities on computer. Webcam is optional.

LATIN II (1 credit)

Grades: 9-12

A story of epic proportions. History-changing battles, great poets and statesmen, classic art and architecture, and a language that was heard throughout most of the known world. In Latin I, you read the opening credits of this epic movie. In Latin II, the plots and the characters that populated ancient Rome will come alive. In this course, you'll build on your knowledge of Latin grammar and vocabulary. In the process, you'll sense the beauty of the language and the passion of those who spoke it. Roman engineering, art, commerce and system of laws were all supported by a clear, expressive and flexible language - a language in which you will be able to communicate.

This course will give you a solid grounding in the structure of the language. It will also give you a clear lens for looking into the heart and majesty of the Roman spirit.

Prerequisite: Latin I online

Requirement: Student will need microphone and recording device capabilities on computer. Webcam is optional.

LATIN III (1 credit)

Grades: 9-12

In Latin III, students take their knowledge and appreciation of Latin to the next level. Students read some of the best Latin prose and poetry ever written or spoken. Caesar tells how he conquered the three parts of Gaul. Cicero reminds Romans of the virtues that made their country great. Catullus shows how he could

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

Prerequisite: *Latin II online.* **Requirement:** *Student will need microphone and recording device capabilities on computer. Webcam is optional.*

SPANISH I (1 credit)

Grades: 8-12

A multi-media, game-based approach makes this introductory Spanish course different from traditional approaches to language learning. Advanced teaching techniques are used to turn compelling adventures and activities into rigorous lessons in grammar and vocabulary. This course provides a solid foundation for reading, speaking, writing, and understanding Spanish and cultivates a passion for the language through exposure to culture and dynamic experiences of real people and real places. This course also features cutting-edge adaptive learning technology that lets students select the learning style that's right for them.

Requirement: *Student will need microphone and recording device capabilities on computer.*

SPANISH II (1 credit)

Grades: 9-12

Students with a beginning foundation in Spanish will see their skills soar through compelling lessons that give them access to content so interesting that they forget that they are learning Spanish. This unique learning methodology relies heavily on games and stories, works effectively to take students from a tentative understanding of Spanish basics to a greater level of sophistication. This course concentrates on students' ability to articulate more and more complex thoughts and to understand authentic native language from a variety of enticing sources.

Prerequisite: *Spanish I online*

Requirement: *Student will need microphone and recording device capabilities on computer. Webcam is optional.*

SPANISH III (1 credit)

Grades: 10-12

In Spanish III, students will meet and virtually accompany four teens with Hispanic backgrounds as they learn about and travel to several Spanish-speaking countries. Students have many opportunities to use the Spanish they already know as well as to expand their vocabulary, knowledge of grammar, and experiences with Spanish-speaking countries. The purpose of this course is to provide many experiences where students can use Spanish. Completely immersed in Spanish, students speak, listen, read, write, and collaborate with other students in Spanish within this course. They also gain knowledge and perspectives about Spanish-speaking countries and from Spanish-speaking people.

Prerequisite: *Spanish II online*

Requirement: *Student will need microphone and recording device capabilities on computer. Webcam is optional.*

HEALTH / MEDICAL

HEALTH (.5 credit)

Grades: 9-12

This Health course will help you develop the knowledge and skills you need to make healthy decisions that allow you to stay active, safe and informed. The lessons, discussions, research, and writing activities are designed to introduce students to important aspects of the main types of health: emotional and mental, social and consumer, and physical. Students will explore nutrition, understanding and avoiding disease, first aid and CPR, and human sexuality. You will find out about the components of a healthy lifestyle and ways to approach making healthy choices and decisions.

NOTE: This course does not fulfill NYSED CPR and Automated External Defibrillators instructional requirement. This requirement must be fulfilled by the student's individual school district.

INTRODUCTION TO ANATOMY & PHYSIOLOGY (1 credit)

Grades: 11-12

This elective course will provide students with the fundamental concepts in human anatomy and physiology. Students can prepare for higher education, further their studies in a biological interest, and have a foundation for a health-related profession. The course content will include basic structure and function of eleven body systems as well as units on the blood, growth and development, and nutrition and metabolism. Students will master the systems of the human body, structural names and locations, and physiological contributions of these structures through activities, discussions, research, and writing assignments. This course is recommended for mature high school juniors and seniors who are highly self-motivated. The ability to memorize medical terms is essential in this course.

Textbook Provided: Structure Function of the Human Body

MEDICAL TERMINOLOGY: A Short Course (.5 credit)

Grades: 10-12

Would you like to speak the same language as the medical professionals? This is a course for students who are pursuing a medical career where they will learn the foundation of medical terms in the field. Students will master the basics of medical terminology and begin speaking and writing medical terms. Students will build a working medical vocabulary of the most frequently encountered suffixes, prefixes, and word roots in context to the human anatomy and physiology.

Nutrition & Wellness (.5 credit)

Grades: 9-12

To keep our body and our mind running like finely tuned machines, we need to use the right fuel. For humans, that means nourishing our bodies with the right foods. In this course, you'll explore how food affects essential aspects of your life from your weight to how you age to how well you think. You'll also examine how outside influences- family, peers, and the media- can affect your diet and your perception of food and how to set yourself up for nutritional success. Are you interested in a career in holistic wellness? Start your health journey now with Nutrition and Wellness.

MATH

ALGEBRA 1 (1 credit)

Grades: 9-10

Algebra I emphasizes the importance of algebra in everyday life through hundreds of real-world examples. Assessments are designed to ensure that your understanding goes beyond rote memorization of steps and procedures. Upon successful course completion, you will have a strong foundation in Algebra I and will be prepared for other higher level math courses.

ALGEBRA 1A (1 credit)

Grades: 9-12

Algebra and the world around you. You may not know it, but algebra is behind the scenes of just about everything. How long will it take to get to school? What does it mean to be average in height? What percentage of your time do you spend studying or watching TV? There are ways to measure and calculate everything from the amount of water in a glass, to the amount of glass needed to build a skyscraper.

This course will review some of the fundamental math skills you learned in middle school, and then get you up to speed on the basic concepts of algebra. Each module takes you step-by-step into the world of integers, equations, graphs and data analysis. You'll work at your own pace until the numbers come out right.

This course connects algebra to the real world. It also demystifies algebra, making it easier to understand and master. The goal is to create a foundation in math that will stay with you throughout high school.

ALGEBRA 1B (1 credit)

Grades: 9-12

It's time to finish what you started. In Algebra 1a, you learned that algebra is an efficient way to solve some real-world problems. You also acquired the power to do a lot of the important basic work. Now, after a quick review, you'll be ready to tackle Algebra 1b.

This course works like the last one. You'll get step-by-step instructions with all the numbers, equations, and graphs on the screen right in front of you. You'll also have plenty of time to practice and plenty of opportunities to ask your teacher for help. Along with learning new algebraic strategies and properties, you'll learn data analysis concepts and techniques. You'll also see how algebra connects with other high school subjects like geometry, statistics and biology. Together, Algebra 1a and 1b will meet your Algebra 1 requirement. These courses will also give you a powerful tool for understanding how the world works, and how to make it work for you.

ALGEBRA II (1 credit)

Grades: 9-12

Starting with a review of basic algebra, students will learn polynomials, quadratic equations, exponential and logarithmic relations, and probability and statistics. Throughout the course, these mathematical concepts are applied to everyday occurrences to demonstrate how the world around us functions.

Prerequisite: Student must have successfully passed Algebra I.

AP CALCULUS AB (1 credit)**Grades: 12**

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

An interactive course framework combines with the exciting on-line course delivery to make calculus an adventure. The course includes a study of limits, continuity, differentiation, and integration of algebraic, trigonometric, and transcendental functions, and the applications of derivatives and integrals.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

Required Materials: Graphing calculator

Pre-requisites: Algebra 1, Geometry, Algebra II, Pre-Calculus or Trigonometry/Analytical Geometry

AP CALCULUS BC (1 credit)**Grades: 12**

Calculus BC can be offered by schools where students are able to complete all the Pre-requisites before taking the course. Calculus BC is a full-year course in the calculus of functions of a single variable. It includes all topics taught in Calculus AB plus additional topics, but both courses are intended to be challenging and demanding; they require a similar depth of understanding of common topics. The Calculus AB subscore is reported based on performance on the portion of the Calculus BC Exam devoted to Calculus AB topics. Pre-requisites before studying calculus, all students should complete four years of secondary mathematics designed for college-bound students: courses in which they study algebra, geometry, trigonometry, analytic geometry, and elementary functions. These functions include linear, polynomial, rational, exponential, logarithmic, trigonometric, inverse trigonometric and piecewise-defined functions. In particular, before studying calculus, students must be familiar with the properties of functions, the algebra of functions, and the graphs of functions. Students must also understand the language of functions (domain and range, odd and even, periodic, symmetry, zeros, intercepts, and so on) and know the values of the trigonometric functions at the numbers 0, $\frac{\pi}{6}$, $\frac{\pi}{4}$, $\frac{\pi}{3}$, $\frac{\pi}{2}$, and their multiples.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

Required Materials: Graphing calculator

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

AP STATISTICS (1 credit)**Grades: 12**

Advanced Placement Statistics is designed to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Topics introduced include the exploratory analysis of data and numerical techniques to study patterns, methods of valid data collection, probability as the tool for anticipating what distributions of data should look like, and confirming models through statistical inference.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

Pre-requisites: Algebra I & II

CONSUMER MATH (1 credit)**Grades: 9-12**

This comprehensive review and study of arithmetic skills apply to both personal and vocational business opportunities. Topics include whole numbers, fractions, percentages, basic statistics, and graphs. Practical applications in finance, taxes, budgeting, banking and home ownership are provided.

GEOMETRY (1 credit)**Grades: 9-12**

One day in 2580 B.C.E., a very serious architect stood in a dusty desert with a set of plans. His plans called for creating a structure 480 feet tall, with a square base and triangular sides, using stone blocks weighing two tons each. The Pharaoh wanted the job done right. The better this architect understood geometry, the better his chances were for staying alive.

Geometry is everywhere, not just in pyramids. Engineers use geometry to build highways and bridges. Artists use geometry to create perspective in their paintings, and mapmakers help travelers find things using the points located on a geometric grid. Throughout this course, students travel a mathematical highway illuminated by spatial relationships, reasoning, connections, and problem solving.

PHYSICAL EDUCATION

PHYSICAL EDUCATION I & II(.5 credit)**Grades: 9-12**

Physical Education encompasses learning how to live and maintain a healthy lifestyle. This course covers physical fitness, why it is important, how to have a healthy attitude, and how to stick with a healthy game plan. In this ever-changing world, physical fitness becomes more important and more difficult to find the time for. This course allows the student to discover how to make physical fitness not only a part of their daily life, but also see that it is attainable. PE for a Healthy Lifestyle will examine the emotional, physical, and scientific factors that influence physical performance.

SCIENCE

AP ENVIRONMENTAL SCIENCE (1 CREDIT)**Grades: 11-12**

This course provides students with a global view of their world and their role in it. It examines the scientific principles and concepts required to understand the interrelationships between ocean, land, and atmosphere that guide the natural world and allow Earth to be a planet suitable for life.

Required Materials: Student will be responsible for supplying the materials needed for the labs. Calculator, paper, pen/pencil, newspaper or wax paper water-based marker, spray bottle, digital camera, plastic cups, navy beans, kidney beans, black beans, black-eyed peas, marker.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

ASTRONOMY (.5 credit)**Grades: 9-12**

Ever wondered how the Earth developed and exists in the vastness of space? How do the scientific laws of motion and gravity play a role in its existence? Discover answers to these questions and explore the origin of the universe, the Milky Way, and other galaxies and stars, including the concepts of modern astronomy and the methods used by astronomers to learn more about the universe.

EARTH-SPACE SCIENCE (1 credit)**Grades: 9-12**

Be captivated by the wonders and beauty of the third planet from our Sun, Earth. Be amazed by what awaits your discovery within our solar system and beyond. It is your turn to explore the universe. Earth/Space Science is a laboratory course focusing on the study of space, geologic structures and forces, the waters on our planet, and the atmospheric forces that shape our world. Through experimentation and investigation, students will explore the earth cycles including the geosphere, hydrosphere, cryosphere, atmosphere, and the carbon cycle. Students will learn about scientific inquiry, geologic time, space exploration, the solar system, and the universe. Students will use web 2.0 tools, interactive experiences, higher-order thinking, collaborative projects, and real-world application through labs and a variety of assessments. Upon completion of the course, students will have a clear understanding of the dynamic forces at work in the world around them, becoming better caretakers of our planet, Earth.

Student Provided Lab Materials: one sheet of plain white paper, several sheets of old newspaper, or wax paper if available, one water-based marker (Note: do not use permanent marker), one spray bottle containing water (place on "mist" setting), digital camera, if available, chocolate chip cookie, toothpicks (flat and round), paperclips, graph paper, stopwatch, timer, or clock with second hand, ruler or meter stick, 4.6 meters of adding-machine tape, or strips of paper taped together to form a continuous line (4.6 meters long), colored pencils, crayons, or markers, digital camera to take and submit a photograph of your time scale (optional), 1 Styrofoam ball, Alternately, you may obtain a similar sphere, preferably white, such as a table-tennis ball, and attach this sphere to a short piece of string, 1 dowel rod, pencil, or other long holder for the Styrofoam ball. Optional: empty aluminum soda can, shallow pan (baking, or pie pan, or storage bowl will do), water, stove top burner, two oven mitts or hot pads, plastic bucket or bowl, toothbrush, measuring cup, 1 un-inflated balloon (when inflated, the balloon should have a round shape and be approximately the size of a soccer ball), About 30 cm (12 inches) of string or yarn, pan, raw egg, cracking device such as a teaspoon, paper towels or newspaper.

FORENSICS: Secrets of the Dead (.5 credit)**Grades: 9-12**

Fingerprints. Blood spatter. DNA analysis. The world of law enforcement is increasingly making use of the techniques and knowledge from the sciences to better understand the crimes that are committed and to catch those individuals responsible for the crimes. Forensic science applies scientific knowledge to the criminal justice system. This course focuses on some of the techniques and practices used by forensic scientists during a crime scene investigation (CSI). Starting with how clues and data are recorded and preserved, the student will follow evidence trails until the CSI goes to trial, examining how various elements of the crime scene are analyzed and processed.

FORESTRY & NATURAL RESOURCES (.5 credit)**Grades: 9-12**

Thriving forests are an essential part of the health of the planet, from our wildlife's ecosystem to providing humans with clean air to lumber and paper products. But forests cannot protect themselves and depend greatly on humans for conservation. Learn more about this meaningful relationship and how environmental policy, land use, water resources, and wildlife management all factor into current forestry issues. Forestry offers diverse professional opportunities, and for those concerned about the environment, it is a great choice.

MARINE SCIENCE (1 credit)**Grades: 9-12**

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

Student Provided Lab Materials: camera, access to a body of water, two baby food jars (minimum), food coloring (four colors), index cards, hot/cold water, salt, spoon, shrimp, lobster, or crab (living or dead), pan or bucket to put animal in, ruler, four zip lock bags (large enough for hand), solid shortening (Crisco or other brand), clock with second hand or stopwatch, duct tape (optional), one oyster with shell, one squid (whole), a pan to put the specimen in, a knife, preferably with a smooth, sharp blade, flathead screwdriver (to open the valves), round toothpick (to use as a probe). Please note that dissection of living animals is optional. Students have a "drawing" option for these particular assignments and extra credit activities.

PALEONTOLOGY (.5 credit)**Grades: 9-12**

From Godzilla to Jurassic Park, dinosaurs continue to captivate us. In this course, students will learn about the fascinating creatures both large and small that roamed the earth before modern man. Watch interesting videos from experts at The Royal Tyrrell Museum, a leading paleontology research facility, and discover how the field of paleontology continues to provide amazing insight into early life on earth.

RENEWABLE ENERGY (.5 credit)**Grades: 9-12**

The earth's population is growing rapidly, and we need to find new, innovative ways to ensure that we are able to provide for our global energy needs. Students will look at the reasons why sustainability is important, take a balanced and evidence-based look at climate change, and learn new ways that we can harness renewable resources.

SPACE EXPLORATION (.5 credit)**Grades: 9-12**

In 1961, Yuri Gagarin became the first human to go to space. In 1969, Neil Armstrong became the first human to step on the moon. This comprehensive course will examine the history and future of space travel. Find out how we have put people in space in the past, and what it will take for us to reach new frontiers, including Mars and beyond.

SOCIAL STUDIES**AP EUROPEAN HISTORY (1 credit)**

In AP European History students investigate significant events, individuals, developments, and processes in four historical periods from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical comparisons; and utilizing reasoning about contextualization, causation, and continuity and change over time. The course also provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world; poverty and prosperity; objective knowledge and subjective visions; states and other institutions of power; individual and society; and national and European identity. *AP Exam: Exam fees are to be paid by the student or school district. The individual school district orders the exam on behalf of the student and administers it.*

AP HUMAN GEOGRAPHY (1 credit)**Grades: 11-12**

Explore the patterns and processes that impact the way humans understand, use, and change Earth's surface. Geographic models, methods, and tools help you examine the effect that human social organization and interconnections have on our world.

AP Exam: Exam fees are to be paid by the student or school district. The individual school district orders the exam on behalf of the student and administers it.

AP MACROECONOMICS (1 credit)**Grades: 11-12**

This course places particular emphasis on the study of national income and price-level determination, and also familiarizes students with economic performance measures, the financial sector, stabilization policies, economic growth and international economics. Solid math and writing skills, along with a willingness to devote considerable time to homework and study, are necessary to succeed. Emphasis is placed on critical and evaluative thinking skills.

AP Exam: Exam fees are to be paid by the student or school district. The individual school district orders the exam on behalf of the student and administers it.

AP MICROECONOMICS (1 credit)**Grades: 11-12**

This course is designed to give students a thorough understanding of the principles of economics that apply to the function of individual decision-makers, both consumers and producers, within larger economic systems. It places primary emphasis on the nature and function of product markets. It also examines factor markets and the role of government in promoting greater efficiency and equity in the economy. Solid math and writing skills, along with a willingness to devote considerable time to homework and study, are necessary to succeed. Emphasis is placed on critical and evaluative thinking skills.

AP Exam: Exam fees are to be paid by the student or school district. The individual school district orders the exam on behalf of the student and administers it.

AP PSYCHOLOGY (.1 credit)**Grades: 11-12**

AP Psychology is a college-level course providing students with an overview of the development of human behaviors and thoughts. Along with preparation for the AP Psychology exam, the goals of this course are to immerse students in modern psychological investigation techniques, to accentuate the ethics and morality of human and animal research, and to emphasize scientific critical thinking skills in application to the social sciences. Psychology is a diverse social and biological science with multiple perspectives and interpretations. The primary emphasis of this course is to help students develop an understanding of concepts rather than memorize terms and technical details; the ultimate goal is to prepare students to successfully take the AP Psychology examination offered in May.

AP Exam: Exam fees are to be paid by the student or school district. The individual school district orders the exam on behalf of the student and administers it.

AP US GOVERNMENT & POLITICS (1 credit)**Grades: 12**

This course includes both the study of general concepts used to interpret U.S. government and politics and the analysis of specific examples. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. government and politics.

AP Exam: Exam fees are to be paid by the student or school district. The individual school district orders the exam on behalf of the student and administers it.

AP US HISTORY (1 credit)**Grades: 11-12**

The AP U.S. History course focuses on the development of historical thinking skills (chronological reasoning, comparing and contextualizing, crafting historical arguments using historical evidence, and interpreting and synthesizing historical narrative) and an understanding of content learning objectives organized around seven themes, such as identity, peopling, and America in the world. In line with college and university U.S. history survey courses' increased focus on early and recent American history and decreased emphasis on other areas, the AP U.S. History course expands on the history of the Americas from 1491 to 1607 and from 1980 to the present. It also allows teachers flexibility across nine different periods of U.S. history to teach topics of their choice in depth.

AP Exam: Exam fees are to be paid by the student or school district. The individual school district orders the exam on behalf of the student and administers it.

AP WORLD HISTORY (1 credit)**Grades: 10-12**

Structured around the investigation of five course themes and 19 key concepts in six different chronological periods, from approximately 8000 B.C.E. to the present. Provides a clear framework of six chronological periods viewed through the lens of related key concepts and course themes, accompanied by a set of skills that clearly define what it means to think historically.

AP Exam: Exam fees are to be paid by the student or school district. The individual school district orders the exam on behalf of the student and administers it.

AFRICAN AMERICAN HISTORY (1 credit)**Grades: 9-12**

Over the course of U.S. history, how have African Americans helped shaped American culture? This African American History course answers that question by tracing the accomplishments and obstacles of African Americans beginning with the slave trade on up to the modern Civil Rights movement. What was it like during slavery, or after emancipation, or during the years of discrimination under Jim Crow? Who were some of the main figures who have shaped African American history? In this course, you'll learn about the political, economic, social, religious, and cultural factors that have influenced African American life, come face to face with individuals who changed the course of history, and explore how the African American story still influences current events today.

ANTHROPOLOGY I (.5 credit)**Grades: 9-12**

The aim of anthropology is to use a broad approach to gain an understanding of our past, present and future, and address the problems humans face in biological, social and cultural life. This course will explore the evolution, similarity and diversity of humankind through time.

ANTHROPOLOGY II (.5 credit)**Grades: 9-12**

Anthropology has helped us better understand cultures around the world and through different time periods. This course continues the study of global cultures and the ways that humans have made sense of their world. We will examine some of the ways that cultures have understood and gave meaning to different stages of life and death.

ARCHAEOLOGY (.5 credit)**Grades: 9-12**

The field of archeology helps us to better understand the events and societies of the past that have helped to shape our modern world. This course focuses on this technique, methods, and theories that guide the study of the past. You will learn how archaeological research is conducted and interpreted, as well as how artifacts are located and preserved.

CAREERS IN CRIMINAL JUSTICE (.5 credit)**Grades: 9-12**

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.

ECONOMICS (.5 credit)**Grades: 12**

Economic decisions affect us every day of our lives. Understanding economics means thinking about how scarcity, or limited resources, requires us to make choices and evaluate one option against others. In this course, you will recognize examples of economics in your daily life. You will see how the economic choices of larger groups, like businesses and governments, affect you and others. As you progress through the course, you will recognize that the costs and benefits of choices connect individuals and groups around the world. The purpose of this course is to help you become a smart consumer who understands the flow of an economy between individuals, businesses, governments, and the rest of the world.

GOVERNMENT (.5 credit)**Grades: 12**

Responsible citizenship, including civil and political participation is essential to maintain a representative government that truly represents the people of the United States. In this course, students learn about the structure of government and how it shares power at the local, state and federal levels. This course also explores founding principles that inspired the Constitution and Bill of Rights, preserving the freedoms that students experience daily. Students will examine the processes of each branch of government, the election process, and how citizens can impact public policy. The media, interest groups and influential citizens provide examples of how the government can be effected by informed and active participants. Students will examine the U.S. Court system, and become a part of the process by participating in the judicial decision making process. They will also discover ways the United States interacts with countries around the world, through domestic policy, foreign policy and human rights policy. Completion of this course will allow you to act as an informed citizen who is ready to participate in the American democracy!

HISTORY OF THE HOLOCAUST (.5 credit)**Grades: 9-12**

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.

HUMAN GEOGRAPHY (.5 credit)**Grades: 9-12**

You will explore the diverse ways in which people affect the world around them and how they are affected by their surroundings. You will discover how ideas spread and cultures form, and learn how beliefs and architecture are part of a larger culture complex.

GLOBAL 9 (1 credit)**Grades: 9**

World History begins with a focus on the skills needed to read, understand, and analyze history, also demonstrating how historians and social scientists arrive at their conclusions about human history. Semester A covers the history of civilization from hunter-gatherer societies through the characteristics of the earliest civilizations to the Enlightenment period in Western Europe.

GLOBAL 10 (1 credit)**Grades: 10**

World History emphasizes the effects of the Industrial Revolution and changing attitudes about science and religion as well as the impact of European colonization. Students are encouraged to make connections between World War I and II and events related to the Cold War and between 19th-century imperialism and modern independence movements.

LAW and ORDER (.5 credit)**Grades: 9-12**

Imagine if there were no laws and people could do anything they wanted.

It's safe to say the world would be a pretty chaotic place! Every society needs some form of regulation to ensure peace in our daily lives and in the broader areas of business, family disputes, traffic violations, and the protection of children. Laws are essential to preserving our way of life and must be established and upheld in everyone's best interest. In Law and Order: Introduction to Legal Studies, you'll delve deeper into the importance of laws and consider how their application affects us as individuals and communities. Through understanding the court system and how laws are actually enacted, you will learn to appreciate the larger legal process and how it safeguards us all.

MEDIEVAL HISTORY (.5 credit)**Grades: 10-12**

Medieval History covers the history and civilization of Europe and the Mediterranean area from ca. 500 to ca. 1500, a period spanning from the collapse of the Roman Empire through the dawn of the Italian Renaissance. Topics covered in this course include the transition from the Roman to the early medieval world; the formation of Byzantine and Islamic societies; the emergence of Barbarian kingdoms; Viking invasions; feudalism; European expansion; late-medieval government; the disasters of the late Middle Ages; religious thought and practice; women's roles in medieval society; the highlights of medieval and Renaissance culture; and the legacy of the Middle Ages.

Pre-requisite: Students should either have completed or be enrolled in Global Studies.

MILITARY CAREERS: Introduction (.5 credit)**Grades: 9-12**

You've probably seen an old movie about a hotshot naval aviator, or perhaps a more recent film about the daring actions of Special Forces operatives. But do you really know what careers the military can offer you? Introduction to Military Careers will provide the answers. The military is far more diverse and offers many more career opportunities and tracks than most people imagine. In Introduction to Military Careers, you'll learn not only about the four branches of the military (and the Coast Guard) but also about the types of jobs you might pursue in each branch. From aviation to medicine, law enforcement to dentistry, the military can be an outstanding place to pursue your dreams.

MYTHOLOGY & FOLKLORE (.5 credit)**Grades: 9-12**

Beginning with an overview of mythology and different kinds of folklore, you will journey with ancient heroes as they slay dragons and outwit gods, follow fearless warrior women into battle, and watch as clever monsters outwit those stronger than themselves. You will explore the universality and social significance of myths and folklore, and see how these are still used to shape society today.

NATIONAL SECURITY (.5 credit)**Grades: 9-12**

Do you know what it takes to keep an entire nation safe? It not only requires knowledge of how to handle disasters, but it also demands a cool head and tremendous leadership abilities. In National Security, you will have the opportunity to learn about the critical elements of the job, such as evaluating satellite information, analyzing training procedures, assessing military engagement, preparing intelligence reports, coordinating information with other security agencies, and applying appropriate actions to various threats. Put yourself in the position of the country's decisive leaders and develop your own knowledge base and skill set necessary to meet the requirements of our nation's most demanding career.

PERSONAL PSYCHOLOGY I (.5 credit each)**Grades: 9-12**

Self-knowledge is the key to self-improvement. Sample topics include the study of infancy, childhood, adolescence, perception and states of consciousness. Amazing online psychology experiments dealing with our own personal behavior are featured within this course.

PERSONAL PSYCHOLOGY II (.5 credit each)**Grades: 9-12**

Enrich the quality of your life by learning to understand the actions of others! Topics include the study of memory, intelligence, emotion, health, stress and personality. This course features exciting online psychology experiments involving the world around us.

PHILOSOPHY: The Big Picture (.5 credit)**Grades: 9-12**

Go on an exciting adventure covering over 2,500 years of history! Along the way, you'll run into some very strange characters, like the dirty barefoot man who hung out on street corners pestering everyone with questions, or that eccentric fellow who climbed inside a stove to think about whether he existed. Despite

their odd behavior, these and other philosophers of the Western world are among the world's most brilliant and influential thinkers and originated the fundamental ideas of Western civilization. Introduction to Philosophy: The Big Picture asks some of the same questions these great thinkers pondered, so by the time you've "closed the book" on this course, you will better understand yourself and the world around you – from atoms to outer space and everything in between.

PRINCIPLES OF PUBLIC SERVICE: To Serve and Protect (.5 credit)

Grades: 9-12

Ambulances scream along, heading toward those in need. But who makes sure someone is there to answer the 9-1-1 call? When you take a pill, who has determined that drug is safe for the public? All of these duties are imperative to our comfort and success as a society. Public service is a field that focuses on building a safe and healthy world, and in Principles of Public Service: To Serve and Protect you will be introduced to its many different career choices. The protection of society is not only one of our greatest challenges, but it also provides ways for people to work together to ensure safety and provide indispensable services. If you have ever contemplated being one of these real-life heroes, now is the time to learn more!

PSYCHOLOGY (.5 credit)

Grades: 10-12

What do you feel? How do you behave? What are your thoughts? Feelings, actions and thoughts are closely related and in this Psychology course, you will see how! Do you wonder things like why you learn the way you do, how you forget, and what makes you remember? Are you curious about mental disorders and what traditional and non-traditional therapy is all about? If experiments and role plays and dream interpretations sound interesting, then this is the class for you! In this course you will learn more about yourself and others including how to break a habit and how to cope with stress. The purpose of this course is to introduce you to the psychological facts, principles, and phenomena associated with each of the subfields within psychology.

SOCIOLOGY I: The Study of Human Relationships (.5 credit)

Grades: 9-12

You will examine social problems in our increasingly connected world, and learn how human relationships can strongly influence and impact our lives. Exciting online video journeys to an array of areas in the sociological world are an important component of this relevant and engaging courses.

SOCIOLOGY II: Your Social Life (.5 credit)

Grades: 9-12

Sociology is the study of people, social life and society. By developing a "sociological imagination" you will be able to examine how society itself shapes human action and beliefs, and how in turn these factors re-shape society itself! Fascinating online videos journeys will not only inform you, but motivate you to still seek more knowledge on your own.

U.S. HISTORY (1 credit)**Grades: 11-12**

The first semester of this course covers the discovery, development, and growth of the United States. Major topics include; American Indian cultures, European colonization of the Americas, and the causes and effects of the American Revolution. Geographical, economic, and political factors are explored as the key factors in the growth of the United States of America. American History I is a survey of the struggle to build the United States of America from the colonial period to the beginning of the twentieth century. By means of reading, analyzing, and applying historical data, students come to appreciate the forces that shaped our history and character as an American people. Not only are the topics of American history discussed, but students also explore research methods and determine accurate sources of data from the past. Knowing the facts and dates of history are just the beginning; each student must understand how history affects him or her.

The second semester of this course begins with a study of American life before the 1929 Stock Market crash and how the Roaring Twenties influenced society in the late 19th through early 20th centuries. Students will examine the causes and consequences of the Great Depression and move on into a detailed study of World War II with an emphasis on America's role in the conflict. The course continues with an analysis of the Cold War struggle and America's rise as a superpower. The Civil Rights and Women's rights movements, pollution and the environment, and American domestic and foreign policy will be examined. The course wraps up with a summary of current events and issues, including a study of the Middle East. This course begins with an assessment of life in United States pre-World War I and ends with the conflicts of the new millennium. Students look at the nation in terms of economic, social, and political trends. The experiences of the last century are summarized, including a look into the civil rights issues that have embroiled the nation in conflict. The development of the United States of America into a superpower is explored within a global context.

WORLD RELIGION (.5 credit)**Grades: 9-12**

This course focuses on the major religions that have played a role in human history, including Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism, Shintoism, and Taoism. You will trace the major developments in these religions and explore their relationships with social institutions and culture.

WOMEN'S STUDIES THROUGH FILM (.5 credit)**Grades: 9-12**

Break down stereotypes and learn about feminism and the women's movement. Learn to critically examine films while learning about the history of the women's movement and how gender, race, and social class influence us. Women have earned their right to stand up and be recognized as equal partners and reap the benefits of their hard work. As the anonymous quote goes, "History is Herstory too."

TECHNOLOGY

CONCEPTS OF ENGINEERING & TECHNOLOGY (.5 credit)

Grades: 9-12

Each day, we are surrounded by technology and engineering projects. From our phones to the bridges we drive over, engineering and technology influence many parts of our lives. In Concepts of Engineering and Technology, you will learn more about engineering and technology careers and what skills and knowledge you'll need to succeed in these fields. You'll explore innovative and cutting-edge projects that are changing the world we live in and examine the design and prototype development process. Concepts of Engineering and Technology will also help you understand the emerging issues in this exciting career field.

INTRODUCTION TO MANUFACTURING: Product Design and Innovation (.5 credit)

Grades: 9-12

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

RENEWABLE TECHNOLOGIES (.5 credit)

Grades: 9-12

Interested in transforming energy? With concerns about climate change and growing populations' effects on traditional energy supplies, scientists, governments, and societies are increasingly turning to renewable and innovative energy sources. In the Introduction to Renewable Technologies course, you'll learn all about the cutting-edge field of renewable energy and the exciting new technologies that are making it possible. You'll explore new ways of generating energy and storing that energy, from biofuels to high-capacity batteries and smart electrical grids. You'll also learn more about the environmental and social effects of renewable technologies and examine how people's energy decisions impact policies.

AP COURSES

AP ART HISTORY (1 credit)

Grade: 12

The AP Art History course is a yearlong survey of art and architecture across centuries, cultures, and styles. In this course students will cover art and architecture created from the Ancient World to the 20th Century and beyond.

They will develop an appreciation and understanding of art and architecture using these seven key concepts: Identification and Attribution, Visual Analysis, Contextual Analysis, Finding Meaning, Interdisciplinary Awareness, Reading Skills, and Writing Skills. By using these concepts, students will be able to identify works of art, artists, and styles.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

AP CALCULUS AB (1 credit)

Grade: 12

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

An interactive course framework combines with the exciting on-line course delivery to make calculus an adventure. The course includes a study of limits, continuity, differentiation, and integration of algebraic, trigonometric, and transcendental functions, and the applications of derivatives and integrals.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

Required Materials: Graphing calculator

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

AP CALCULUS BC (1 credit)

Grades: 12

Calculus BC can be offered by schools where students are able to complete all the Pre-requisites before taking the course. Calculus BC is a full-year course in the calculus of functions of a single variable. It includes all topics taught in Calculus AB plus additional topics, but both courses are intended to be challenging and demanding; they require a similar depth of understanding of common topics. The Calculus AB subscore is reported based on performance on the portion of the Calculus BC Exam devoted to Calculus AB topics. Pre-requisites before studying calculus, all students should complete four years of secondary mathematics designed for college-bound students: courses in which they study algebra, geometry, trigonometry, analytic geometry, and elementary functions. These functions include linear, polynomial, rational, exponential, logarithmic, trigonometric, inverse trigonometric and piecewise-defined functions. In particular, before studying calculus, students must be familiar with the properties of functions, the algebra of functions, and the graphs of functions. Students must also understand the language of functions (domain and range, odd and even, periodic, symmetry, zeros, intercepts, and so on) and know the values of the trigonometric functions at the numbers 0, $\frac{\pi}{6}$, $\frac{\pi}{4}$, $\frac{\pi}{3}$, $\frac{\pi}{2}$, and their multiples.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it. **Required Materials:** Graphing calculator

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

AP COMPUTER SCIENCE A (1 credit)

Grades: 11-12

The AP® Computer Science A course is equivalent to the first semester of a college level computer science course. The course involves developing the skills to write programs or part of programs to correctly solve specific problems. AP® Computer Science A also emphasizes the design issues that make programs understandable, adaptable, and when appropriate, reusable. At the same time, the development of useful computer programs and classes is used as a context for introducing other important concepts in computer science, including the development and analysis of algorithms, the development and use of fundamental data structures, and the study of standard algorithms and typical applications. In addition an understanding of the basic hardware and software components of computer systems and the responsible use of these systems are integral parts of the course.

Technology Requirements: Students must have access to a computer system that represents relatively recent technology (PIII). Schools need to have Java and Bluj software already installed on a designated machine(s) before the course starts and enough memory in their lab machines (128 MB) so that students will be able to compile and run Java and BluJ programs efficiently.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

Pre-requisites: Algebra I is required. Algebra II is highly recommended.

Pre-requisite: Students must have taken and successfully passed Web Design and JavaScript.

AP ENGLISH LANGUAGE AND COMPOSITION (1 credit)

Grades: 11-12

An AP course in English Language and Composition engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing. The college composition course for which the AP English Language and Composition course substitutes is one of the most varied in the curriculum.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

Pre-Requisites: Teacher recommendation, English I, II (honors), with a B+ average

AP ENVIRONMENTAL SCIENCE (1 CREDIT)

Grades: 11-12

This course provides students with a global view of their world and their role in it. It examines the scientific principles and concepts required to understand the interrelationships between ocean, land, and atmosphere that guide the natural world and allow Earth to be a planet suitable for life.

Required Materials: Student will be responsible for supplying the materials needed for the labs. Calculator, paper, pen/pencil, newspaper or wax paper water-based marker, spray bottle, digital camera, plastic cups, navy beans, kidney beans, black beans, black-eyed peas, marker.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

AP EUROPEAN HISTORY (1 CREDIT)

Grades: 11-12

In AP European History students investigate significant events, individuals, developments, and processes in four historical periods from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical comparisons; and utilizing reasoning about contextualization, causation, and continuity and change over time. The course also provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world; poverty and prosperity; objective knowledge and subjective visions; states and other institutions of power; individual and society; and national and European identity.

AP Exam: Exam fees are to be paid by the student or school district. The individual school district orders the exam on behalf of the student and administers it.

AP HUMAN GEOGRAPHY (1 credit)

Grades: 11-12

Explore the patterns and processes that impact the way humans understand, use, and change Earth's surface. Geographic models, methods, and tools help you examine the effect that human social organization and interconnections have on our world.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

AP MACROECONOMICS (1 credit)

Grades: 11-12

This course places particular emphasis on the study of national income and price-level determination, and also familiarizes students with economic performance measures, the financial sector, stabilization policies, economic growth and international economics. Solid math and writing skills, along with a willingness to devote considerable time to homework and study, are necessary to succeed. Emphasis is placed on critical and evaluative thinking skills.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

AP MICROECONOMICS (1 credit)

Grades: 11-12

This course is designed to give students a thorough understanding of the principles of economics that apply to the function of individual decision-makers, both consumers and producers, within larger economic systems. It places primary emphasis on the nature and function of product markets. It also examines factor markets and the role of government in promoting greater efficiency and equity in the economy. Solid math and writing skills, along with a willingness to devote considerable time to homework and study, are necessary to succeed. Emphasis is placed on critical and evaluative thinking skills.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

AP PSYCHOLOGY (.1 credit)

Grades: 11-12

AP Psychology is a college-level course providing students with an overview of the development of human behaviors and thoughts. Along with preparation for the AP Psychology exam, the goals of this course are to immerse students in modern psychological investigation techniques, to accentuate the ethics and morality of human and animal research, and to emphasize scientific critical thinking skills in application to the social sciences. Psychology is a diverse social and biological science with multiple perspectives and interpretations. The primary emphasis of this course is to help students develop an understanding of concepts rather than memorize terms and technical details; the ultimate goal is to prepare students to successfully take the AP Psychology examination offered in May.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

AP STATISTICS (1 credit)**Grade: 12**

Advanced Placement Statistics is designed to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Topics introduced include the exploratory analysis of data and numerical techniques to study patterns, methods of valid data collection, probability as the tool for anticipating what distributions of data should look like, and confirming models through statistical inference.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

Pre-requisites: Algebra I & II

AP US GOVERNMENT & POLITICS (1 credit)**Grade: 12**

This course includes both the study of general concepts used to interpret U.S. government and politics and the analysis of specific examples. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. government and politics.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

AP US HISTORY (1 credit)**Grades: 11-12**

The AP U.S. History course focuses on the development of historical thinking skills (chronological reasoning, comparing and contextualizing, crafting historical arguments using historical evidence, and interpreting and synthesizing historical narrative) and an understanding of content learning objectives organized around seven themes, such as identity, peopling, and America in the world. In line with college and university U.S. history survey courses' increased focus on early and recent American history and decreased emphasis on other areas, the AP U.S. History course expands on the history of the Americas from 1491 to 1607 and from 1980 to the present. It also allows teachers flexibility across nine different periods of U.S. history to teach topics of their choice in depth.

AP Exam: Exam fees are to be paid by the student or by school district. The individual school district orders the exam on behalf of the student and administers it.

AP WORLD HISTORY (1 credit)**Grades: 11-12**

Structured around the investigation of five course themes and 19 key concepts in six different chronological periods, from approximately 8000 B.C.E. to the present. Provides a clear framework of six chronological periods viewed through the lens of related key concepts and course themes, accompanied by a set of skills that clearly define what it means to think historically.

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