

Senior English

Senior AP Literature and Composition

In this class, students will read a variety of pieces with a plethora of different themes that address racial, economic, gender, and class discrimination. Furthermore, they will examine each piece as a work of art to be scrutinized for motifs, symbols and imagery and discuss how these elements contribute to the work as a whole. In May, with the guidance of the teacher, their peers, their own initiative and the supplementary material provided, they will be able to analyze works at the same level as a sophomore college student. The course will rely heavily on at-home reading, class discussion (novels, plays, poetry and essays), journal entries, and analytical essays. The class will abide by the rules of the College Board.

Senior Honors English

This course, which has a curriculum similar to Senior CP English, requires students to discuss and analyze literature in more depth and with a more rigorous pace. Students will work more independently and participate in student-driven class discussions. Students will also be expected to write with more focus and attention to the requirements of MLA format and standard research requirements. Students will be required to read additional selections from the supplementary book list.

Senior English

This course is designed to give students knowledge of great European writers with a focus on British Literature. Students will study great European writers and their lives and work, and they will explore the complexities and evolution of the English language. Students will study pieces of literature beginning with *Beowulf* and continuing with Shakespeare's *Macbeth* and Romantic Poetry. In doing so, they will explore the historical and cultural influences on literature. Students will analyze and interpret a variety of literature representing many genres and time periods across Europe. Students will demonstrate an understanding of these works through various styles of writing, including expository, argumentative, and narrative essays. Students will also follow MLA guidelines in conducting both mini and sustained research assignments. They will also be responsible for completing CVTE portfolio requirements, such as an updated resume and goals essay. They are also responsible for reading and testing on one self-selected novel in the first, second, and third quarters for the Accelerated Reader program. A notebook is required.

Research and Writing (Trimester Elective)

The Research and Writing elective focuses on developing research skills that will result in a written expository research paper and an oral and visual presentation. Students will deepen their understanding of research through evaluating sources for credibility. They will identify important information in their sources, take notes, create an MLA format outline and Works Cited page, and then write a research paper that responds to a well-developed thesis statement. Students will also prepare and deliver a presentation on the same topic. In doing so, they will learn the

dos and don'ts of presenting, practice their presentation skills, and learn how to present research to a different audience through a different medium. This course will deepen students' understanding of the research and writing process and is especially helpful for those thinking of continuing their education.

Women in Literature (Trimester Elective)

The "Women in Literature" course is designed to increase students' understanding and appreciation of literature written by women in various genres, which may include short stories, novels, essays, poetry and drama. Through discussion and writing activities, students will analyze the literature from different cultures and time periods to illuminate how contrasting societies define women's roles. The course explores how writing from a woman's perspective values women's lives and raises questions about a women's role in nature, family and society.

Literature in Film (Trimester Elective)

The "Literature in Film" course provides students with the opportunity to further develop analytical and critical thinking skills using the visual medium of film. In the course, students will become familiar with various genres of film and film terminology while viewing, discussing, and writing about film. Students will learn to interpret film as a text by analyzing character development, setting, themes, cinematography, lighting, and sound. In addition, students will read a variety of texts throughout the year such as fiction, non-fiction, and scholarly journals that will be utilized to make comparisons between film and literature.

Senior Science

Applied Science:

Applied Science is a college preparatory course designed to introduce students to electronics and microprocessors by applying concepts of physics and chemistry. Students will learn to write basic code that allows Arduino based microprocessors to perform a large array of functions. In this project-based course students will design and build systems to investigate concepts such as electricity, motion, energy, waves and chemical reactions. These projects are designed to promote and develop appropriate skills in science inquiry, engineering and coding. Students will conclude the year with a capstone project that will allow students to demonstrate command of their newly learned skills.

Environmental Science:

This college preparatory course will further develop students' understanding of environmental issues pertaining to ecological interactions and ecosystem structure. Through a series of outdoor investigations and laboratory exercises, students will become familiar with issues facing the flora and fauna of New England. A variety of environmental topics will be examined including energy systems, air, water, and

land pollution, natural resource management, pest control, and land use. Also considered are the economic, political, and sociological factors influencing resource management and environmental policy

Botany:

The scientific study of plants and their relationship to the environment. This course will provide instruction related to the broad fields of botany with emphasis on the scientific and technical knowledge related to the discipline. Special emphasis will be in the practice of gene technology, laboratory and inquiry based genetic and hormonal experiments. The student will discover and understand the modern perspective of plant genetics as it relates to crop production and environmental issues. Topics in this course include information on plant anatomy and physiology, plant growth, plant diversity, general botany, soil analysis, crop gene modification detection, hormonal regulation of plant growth and its implications, phylogenetic and taxonomic classification, burgeoning concepts of plant social and intellectual structure, cellular energetics, gardening and land use, etc. Time will be spent in the classroom and in the greenhouse.

Honors Physics:

This is the next college preparatory course in the science honors program designed to challenge outstanding science students who wish to prepare themselves for college. A strong background in Algebra is required. The course will be a math intensive introduction to the study of motion, electricity, magnetism, fluid dynamics, sound, light, and quantum physics. The skills required for an understanding of these principles and concepts are developed through laboratory investigations, problem solving, and other student-centered activities. Students are expected to complete longer and more complex assignments nightly as well as outside of class. Strong organizational skills including time-management are required. The prerequisite for this course is a 70 or higher in Honors Chemistry or department head approval. Students who have difficulty in this class are encouraged to work after school with the teacher or request further support from the science department head.

Physics:

This challenging college preparatory course is designed to prepare students to be successful in college. A strong background in Algebra is required. The course will be a math intensive introduction to the study of motion, electricity, magnetism, fluid dynamics, sound and light. The skills required for an understanding of these principles and concepts are developed through laboratory investigations, written lab reports, problem solving, frequent homework and other student-centered activities. The prerequisites for this course are grades of 70 or better in Chemistry and Algebra II. Students who have difficulty in this class are encouraged to work after school with the teacher or request further support from the science department head.

Human Body Systems:

In this course, students will be introduced to the anatomy (structures) and physiology (functions) of the major human body systems. Students will gain knowledge of the functioning of the human body through a variety of laboratory exercises and they will study comparative anatomy by dissection of both invertebrate and vertebrate animals. Additionally, pathology of the human body will be discussed, along with prevention strategies.

Biotechnology:

Biotechnology is a laboratory course in which students will acquire a basic understanding of the study of biotechnology. The major topics will include the study of DNA as a diagnostic tool, forensic science, genetic engineering, cloning, and ethical conduct in biotechnology. The course will also emphasize the basic laboratory skills needed in modern biotechnology laboratories.

Honors Biotechnology:

Honors Biotechnology is a laboratory-based course in which students will acquire a basic understanding of the study of biotechnology. The major topics will include an in-depth study of DNA as a diagnostic tool, forensic science, genetic engineering, cloning, and ethical conduct in biotechnology. The zebrafish *Danio rerio* will be used as a model organism to investigate the influence of the environment on gene expression. The course will delve into synthetic biology which is the engineering of cells in order to produce a useful product such as a drug. The course will also emphasize the basic laboratory skills needed in modern biotechnology laboratories. The prerequisite for this course is a 70 or higher in Honors Chemistry or department head approval.

Senior History**College Prep – World History I:**

World History I is a multicultural course that provides students with the opportunity to expand their understanding and appreciation of world cultures and traditions. This course inspires students to learn about past civilizations while gaining an interest in being a citizen of the world. Students study the development of world civilizations after the fall of the Roman Empire. Students study the history of the major empires and political entities of this period: the Ottoman Empire, the Moghul Empire, the Chinese dynasties, the Byzantine Empire, and the major pre-Columbian civilizations that existed in Central and South America. Students examine the important political, economic, and religious developments of this period, including the development of democratic, scientific, and secular thought in the major events and developments of European history. To the extent practical, students study the origins and development of major civilizations in Africa, India, and East Asia.

Honors - World History I

This course, which mirrors the content provided in College Prep World History I, emphasizes writing, analysis of primary and secondary sources, and articulate discussions of challenging materials, within a blended classroom setting. This course is offered to students who have demonstrated advanced skills in reading and writing and have previously enrolled in the Social Studies honors courses. Students not previously enrolled in the honors courses program will need approval from the academic department head. Students who are planning to enroll in the department Advanced Placement courses their senior year are encouraged to select this course.

College Prep - World History II:

Students study the rise of the nation state in Europe, the French Revolution, and the economic and political roots of the modern world. They will study the origins and the consequences of the Industrial Revolution, 19th century political reforms in Europe, and imperialism in Africa, Asia, and South America. They will examine the causes and consequences of the great military and economic events of the past century, including World War I, the Great Depression, World War II, the Cold War, and the Russian and Chinese revolutions. Students will also study the rise of nationalism and the continuing political, ethnic, and religious conflicts in many parts of the world.

Honors - World History II:

This course, which mirrors the content provided in College Prep-World History II, emphasizes writing, analysis of primary and secondary sources, and articulate discussions of challenging materials, within a blended classroom setting. Students will demonstrate and master their skills through a capstone and/or extensive research-based class projects. This course is offered to students who have demonstrated advanced skills in reading and writing and have been previously enrolled in Social Studies honors courses. Students not previously enrolled in the honors courses program will need approval from the academic department head.

AP - European History:

Students will study from approximately 1450 to the present. They will study the rise of the nation state in Europe, the French Revolution, and the economic and political roots of the modern world. Students will analyze the origins and the consequences of the Industrial Revolution, 19th century political reforms in Europe, and imperialism in Africa, Asia, and South America. They will examine the causes and consequences of the great military and economic events of the past century, including World War I, the Great Depression, World War II, the Cold War, and the Russian and Chinese revolutions. Students will also study the rise of nationalism and the continuing political, ethnic, and religious conflicts in many parts of the world. These topics require students to reason historically about continuity and change over time and make comparisons among various historical developments in different times and places. This is a vigorous blended course, which requires participation in the Moodle platform, online discussions and the completion of various shop assignments. All students are required to sit for the AP exam. This course is recommended to

students who have successfully completed Honors- World History I or have been recommended for placement by their teachers.

Local History (Grade 12 Trimester Course):

Learn Backwards! This course will be taught from the present (today) to the past, ending in the 1600s. Local History is a great way for students to learn fun facts and the unknown history of the places they pass and live by every day. Students study the history of Old Dartmouth, which became New Bedford, Dartmouth, Fairhaven, Acushnet, and Westport. It will include the study of the area's economic and ethnic future, the effects of hurricanes, blizzards, and national movements on the area. Students will learn about the importance of the whaling industry and major figures in the anti-slavery movement. This course may include a field trip that highlights the interesting local history students will be uncovering.

African American Studies:

This African American Studies course is designed to develop an understanding of the causes, character, and consequences of the African American experience and its influence on both the world and the United States. Students will gain an appreciation of the richness, diversity, and contributions of African American culture to national and international life. The course will include a comprehensive review of important people, events and ideas that have played a key role in shaping the history and culture of African Americans. Content will highlight dynamic contemporary topics and contributions made by members of the Greater New Bedford African American community.

General Psychology:

General Psychology introduces students to the social theories of modern psychology and traces the evolution of psychology to its acceptance as an empirical science. In addition, it provides a comprehensive overview of human development and the effects of environment and heredity on individuals. Students will examine group dynamics and the impact of racism, sexism, ageism. Students considering professions in education, nursing and law enforcement may find this course particularly useful.

United States Government and Politics (Grade 12 Trimester Course)

This course is a study of the origins, development, structure, and functions of the American national government. Topics include the constitutional framework; federalism; the three branches of government, including the bureaucracy; civil rights and liberties; political participation and behavior; and policy information. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system. In addition, the course will examine the role and responsibilities of local, state and federal government in the context of addressing issues related to contemporary American society. The core objective of the course will be the completion of a student led non-partisan action civics project. This is a single trimester course.

Sociology (Grade 12 Trimester Course)

This course is the study of societies and how people interact with in another in those societies. Sociology can be used as a tool to study just about everything in our social world. In this course, students will use readings, film, music and other sources to discuss and critically analyze such topics as culture, race, gender, adolescence, poverty, social institutions and globalization. The ultimate goal of the course is to help students acquire a broad and deep understanding of social forces that influence the world in which we live. Students considering a profession in criminal justice, social work education and healthcare may find this course particularly useful.

Senior Math

AP Statistics

This course is recommended for students planning to attend a four-year college. Advanced Placement Statistics will introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. This is an Advanced Placement course which follows a set of syllabi approved by the College Board. An AP test is taken at the end of the year to determine whether the student will receive college credit for this course. Students enrolled in AP Statistics should expect to complete lessons and assignments during both academic and shop cycles. Permission of the department head is mandatory.

Probability & Statistics (ACP)

This advanced college prep course is offered to students who have passed Algebra II. This course will introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. This course is recommended for students who plan to attend a 2 or 4-year college – particularly those interested in the areas of psychology, sociology, health science and business-related majors such as Accounting, Finance, Marketing, etc.

Honors Differential Calculus

This honors course is offered to students who have successfully completed Pre-Calculus or three years of Honors math courses. A strong mathematical background is required. Topics for discussion include functions, the deviate, techniques of differentiation, curve sketching exponential and logarithmic functions, the integral and techniques of integration. This course is recommended for students who are interested in pursuing a STEM (Science, Technology, Engineering and

Mathematics) based major in college. Permission of the department head is mandatory.

Pre-Calculus (ACP)

This course is offered to students who have completed three years of Advanced College Prep Math courses and have demonstrated superior mathematical skills. This course is recommended for students who are interested in pursuing a STEM (Science, Technology, Engineering and Mathematics) based major in college. Permission of the department head is mandatory.

Trigonometry (ACP)

This advanced college prep course is offered to those students who have passed all college prep courses and successfully passed Algebra II CP with a grade of 80 or better. It is recommended for those who are interested in attending college and plan to enter fields such as: architecture, electronics, electrical, engineering, data processing, medical and drafting. Topics include: trigonometric functions, solving right angles, radian measure, trigonometric identities, and graphing trigonometric functions. Permission of the department head is mandatory.

Algebra III (CP) College Math IV

This CP course is intended to accelerate student learning in Algebra where curricular gaps may exist. The course will also include an SAT/Accuplacer Prep component. In addition, the course will consist of a number of project-based learning consumer math activities (data analysis, financial literacy) in order to relate Algebra to real world applications. Successful completion of Algebra II is a prerequisite.

CP Algebra II (Only if not passed in summer school)

The successful completion of Algebra I is a prerequisite for Algebra II. This course is recommended for all students that did not pass Algebra II during their Junior year (or summer school).

Virtual High School Courses

<https://my.vhslearning.org/publicstudentcourselist.aspx>

Possible Elective Choices

*Second Related

*Second Math

*Second Science

*History Course

*VHS Course

Mandatory Courses

*English

*Math

*Related

*Shop

*US Government & Politics (Trimester course)

*Physical Education (Trimester course)