Robert E. Fitch High School
Advanced Placement Courses

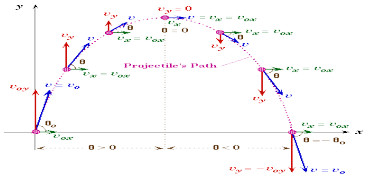
Students enrolling in AP Courses are encouraged to take the May AP examination.

AP Biology (1.0 credit)

****Prerequisite: Honors Bio & strongly suggested, Honors Chemistry***

AP Biology is a comprehensive laboratory biology course for potential college biology credits. The course is fast paced, covers many biological concepts and requires a good deal of study. The course follows the AP Biology curriculum. The course examines four big ideas:

1. Evolution drives unity and diversity in living things.
2. Biological systems require energy for living.
3. Biological systems use molecules like DNA to store, retrieve and pass on characteristics.
4. Interactions between biological systems are complex and intricate.



AP Physics 1 (1.0 credit)

AP Physics 1 is the equivalent to a first-semester college course in algebra-based physics. Students can elect to take AP Physics 1 as an ***advanced alternative*** to taking Honors Physics. AP Physics 1 covers Newtonian mechanics (motion and acceleration), linear and rotational dynamics (forces and torques), wave motion

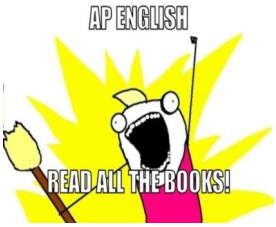
AP Chemistry (1.0 credit)

****Prerequisite: Hon Chemistry***

This course is designed to comply with the curricular requirements described in the AP Chemistry course description. Evaluation of course content is completed through the following assessments: Formal written lab reports, frequent collaborative peer evaluation of collected lab data, unit exams and formal completion of problem sets for each of the 22 chapters.

AP Environmental Science (1.0 credit)

This course is designed to be the equivalent to one-semester introductory college course in environmental science that includes a laboratory and field investigation component. Emphasis is placed on the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and manmade, to evaluate the relative risks associated with these problems, and to examine alternate solutions for resolving and/or preventing them.



AP-UConn English 11/ECE English 1004: Introduction to Academic Writing (1.0 credit)

This course is a dual enrollment course. Students taking this course enroll as UConn students and earn 4 transferable college credits when passing with a C or better. Students also prepare for the AP English Language and Composition exam in May. Students can expect to develop their critical reading and academic writing skills in a challenging, rigorous, and

AP-UConn English 12/ECE English 1011: Seminar in Academic Writing through Literature (1.0 credit)

This course is a dual enrollment course. Students taking this course enroll as UConn students and earn 4 transferable college credits when passing with a C or better. Students also prepare for the AP English Literature and Composition exam in May. Students can expect to further develop their critical reading and academic writing skills in a challenging, rigorous, and rewarding course. In depth literary study and analysis are the focus of the course.

AP United States Government (1.0 credit)

AP U.S. Government and Politics provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behaviors. They will also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. In addition, they will complete a political science research or applied civics project. This course is equivalent to a one-semester introductory college course in U.S. government.

AP European History (1.0 credit)

This is a senior elective course which provides a comprehensive study of European History from the Renaissance to the present, with the goal of having each student pass the Advanced Placement examination in European History. The presentations and assignments in this course are designed to develop the student's ability to recognize, understand, manipulate, and express a knowledge of the social, political, economic, and cultural aspects of the European heritage. Intensive reading and extensive writing are vital parts of this course, intended to expand the student's ability to analyze and synthesize information, as well as to cultivate the skill of critical thinking, thus preparing the student for college level instruction.

AP US History (1.0 credit)

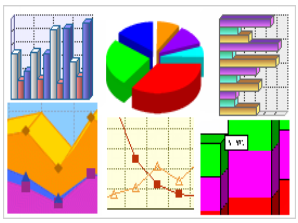
Prerequisite: Honors US History is strongly recommended

This course provides a comprehensive study of United States History from 1850 to the present, with the goal of having each student pass the Advanced Placement examination in U.S. History. The presentations and assignments in this course are designed to develop the student's ability to recognize, understand, manipulate, and express a knowledge of the social, political, economic, and cultural aspects of the American heritage. Intensive reading and extensive writing are vital parts of this course, intended to expand the student's ability to analyze and synthesize information, as well as to cultivate the skill of critical thinking. This course fulfills the graduation requirement and simultaneously prepares students for college level instruction.

AP Psychology (1.0 credit)

AP Psychology introduces students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Student's are also presented with an opportunity to earn credit in a course suitable for almost any program of study at the college level.

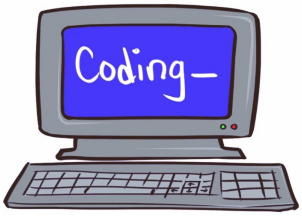
AP Probability and Statistics/UConn ECE Elementary Concepts of Statistics 1100Q (1.0 credit)

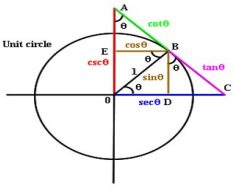


This course is a dual enrollment course. Students taking this course enroll as UConn students and earn 4 transferable college credits when passing with a C or better. The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding. There is a registration fee for this UConn course.

AP Computer Science (1.0 credit)

AP Computer Science A is equivalent to a first-semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science A course curriculum is compatible with many CS1 courses in colleges and universities.



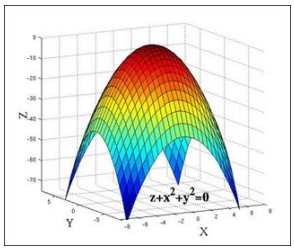


AP Calculus AB/UConn ECE Calculus I 1131Q (1.0 credit)

Prerequisite: Honors Calculus

This course is a dual enrollment course. Students taking this course enroll as UConn students and earn 4 transferable college credits when passing with a C or better. This course is a study of the calculus that will be equivalent to one semester of study on the college level. Topics include the following: functions, graphs, limits, continuity, derivatives, applications of derivatives, integrals, techniques and applications of antidifferentiation, slope fields and other topics. Classroom activity will involve use of the TI-83 graphing calculator. Students will be expected to take the AP Calculus AB Exam in May. There is a registration fee for this UConn course.

AP Calculus BC is available upon successful completion of AP Calculus AB



AP Calculus BC/UConn ECE Calculus I 1131Q and Calculus II 1132Q (1.0 credit)

Prerequisite: AP Calculus AB

This course is a dual enrollment course. Students taking this course enroll as UConn students and earn 8 transferable college credits when passing with a C or better. This course is designed to provide students with a learning experience equivalent to two semesters of college level calculus. Topics include all AB Calculus topics as well as parametric, polar, and vector functions; applications of integrals; and polynomial approximations and series including series of constants and Taylor series. Classroom activity will involve use of the TI-83 graphing calculator. Students will be expected to take the AP Calculus BC Exam in May. There is a registration fee for this UConn course.

AP Music Theory (1.0 credit)

This course focuses on continuing development in musicianship, theory, musical materials, and procedures. Emphasis is placed on the ability to identify and work with the elements of music to compose musical passages, and analyze the compositional structure, style, and harmonic progressions of musical excerpts. Musicianship skills are strengthened through daily dictation and sight-singing practice. It is through strong musicianship skills and a foundation of the elements of music that students will be able to pursue various compositional techniques and analyze music both stylistically and historically. A focus on music from the Common Practice Period (1600-1900), and music of other stylistic periods will be studied.