

SCIENCES

A.P. Chemistry

Grade level: 10th-12th grades

Course content: This course is roughly the equivalent to a first year college introductory chemistry class. Topics covered include thermochemistry (heat), gases, acids and bases, and shapes of molecules.

A. P. Biology

Grade level: 10th-12th grades

Course content: Molecules & cells; heredity & evolution; organisms & population

Pre-requisites: General chemistry recommended, but not required

A.P. Physics

Grade level: 10th -12th grades

This course provides a systematic introduction to the main principles of physics and emphasizes the development of conceptual understanding and problem-solving ability using algebra and trigonometry.

SOCIAL STUDIES

A.P. Human Geography

Grade level: 9th grade

The purpose of the AP course in Human Geography is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice.

A.P. European History

Grade level: 10th grade

Course content: The class covers from 1350 (the Renaissance) to the present and touches on most European countries.

A.P. U.S. History

Grade level: 11th grade

Course content: We study the political, social, and economic issues pertaining to United States History beginning with exploration (1400s) to present day. The course provides students with the opportunities to learn how our history has shaped the present condition of our nation.

A.P. U.S. Government

Grade level: 12th grade

Course content: American politics and branches of government, as well as public policy, the role of the media, and political theory

A.P. Psychology

Grade level: 11th, 12th grades

Course Content: Introduces the systematic and scientific study of the behavior and mental processes of human beings and other animals. Included is a consideration of the psychological facts, principles, and phenomena associated with each of the major subfields within

psychology. Students also learn about the ethics and methods psychologists use in their science and practice.

TECHNOLOGY

A. P. Computer Science

Grade level: 11th or 12th grade

Course content: First year of college computer science, programming language: JAVA

Pre-requisites: Successful completion of Computer Science I/II

ART

A.P. Art (portfolio, 2 dimensional)

Juniors and seniors interested in A.P. Art should contact their art teacher before registration for information about this course.

LANGUAGE ARTS

Honors Language Arts 9

This class is for students who have been successful in the 8th grade honors program at the middle school and highly capable students in the regular grade eight language classes who are particularly interested in the faster-paced, more academically challenging Honors LA 9. They should be advised, however, that it is a college preparatory class with corresponding high expectations.

Honors Language Arts 10

Course content: This class explores literary classics while practicing various modes of writing.

Pre-requisites: Summer reading assignment

A.P. Language & Composition

Grade level: 10th & 11th grade

Course content: College level analysis and writing skills; with a focus on argumentation / persuasion; most of the readings are nonfiction.

A.P. Seminar

Grade level: 11th & 12th grade

Course content: AP Seminar engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Students learn to synthesize information from multiple sources, develop their own perspectives in written essays, and design and deliver oral and visual presentations, both individually and as part of a team.

A. P. Literature & Composition /Central

Grade level: 12th grade

Course content: A survey of English literature from *Beowulf* to modern poetry and novels

A. P. Research

Grade level: 12th grade

Course content: The course culminates in an academic paper of 4,000-5,000 words and a presentation, with an oral defense; during which you will answer 3-4 questions from a panel of evaluators.

MATHEMATICS

Geometry (9th or 10th grade)

Course content: Geometry is the study of visual patterns including: points, lines, planes, triangles, reasoning and proof, transformations, measurement formulas, similarity, right triangle trigonometry, and drawing technologies (both hand and computer generated drawing).

Pre-requisites: Teacher's signature; recommended "C" grade or higher in Algebra 1 & 2.

Advanced Algebra / Trigonometry (9th, 10th, or 11th grade)

Course content: Advanced Algebra topics are presented and include: discrete mathematics, equations and inequalities, functions and their roots, conic sections, logarithms, and trigonometry. Graphing calculator skills are taught and applied to problem solving.

Pre-requisites: Teacher's signature. Recommend a "C" grade in Algebra 1&2, and Geometry 1&2.

Pre-calculus (11th grade)

Pre-requisites: Teacher's signature. Recommend a "B" grade in Advanced Algebra & Trigonometry.

Course content: Pre-Calculus is the study of advanced functions and graphing, trigonometry, and discrete mathematics. Problem solving skills require the use of thank you thank you graphing calculators, and related technologies. The math content is relevant to sciences, engineering, business and social sciences.

A.P. Calculus (12th grade)

Pre-requisites: Successful completion of Pre-calculus

Course content: This course gives the student an introduction to the basic concepts of calculus for the purpose of taking the AP test and entering a college calculus course. The student will study polynomial functions, limits, derivatives, logarithmic and exponential functions, trigonometric functions, integration, and their applications.

A.P. Statistics (11th-12th grades)

Course content: Exploring data, distributions, sampling and experimentation, probability and simulations, and statistical inference.

Pre-requisites: A "B" or better in Advanced Algebra & Trigonometry OR a "C" grade or better in Pre-Calculus

WORLD LANGUAGES

All fourth year World Language classes will offer preparation for the A.P. exam and an opportunity for the students to take the A.P. exam.

UW in the High School Spanish

Pre-requisites: 1st-3rd year Spanish

4th Year French

Pre-requisites: 1st-3rd year French

A.P. German

Pre-requisites: 1st through 3rd year German

4th Year Japanese

Pre-requisites: 1st through 3rd year Japanese

***PLEASE NOTE:** Any student is taking an A.P. World Language class needs to enroll in their chosen world language as **freshmen**.

Advanced Placement, Honors Courses, *and the* AP Capstone Diploma

Auburn Riverside High School



The Advanced Placement Program (A.P.) courses give you a head start on college while you're still in the supportive environment of the classroom.

Taking the end-of-course A.P. Exam sends a powerful message to colleges and universities that you're ready for them, and can enable you to gain admission, college credit, and placement into advanced courses.