

# Hamilton High School Advanced Placement Offerings

## Chemistry

- First year college chemistry curriculum
- Interactive labs and discussion, thought provoking activities and demonstrations, inquiry-based projects
- Develop a scientific understanding of how the world around us works.

## Biology

Participate in an interactive, in-depth study of biology, using a variety of instructional methods, including hands-on activities, small and large group learning, and inquiry labs. Open to juniors and seniors.

## Environmental Science

- College-level introductory course
- Goal is to understand the interrelationships of the natural world
- In-depth coverage of topics of energy, population, land use, water, atmosphere, biodiversity, and achieving sustainability

## Physics

- Calculus-based course that prepares students for technical fields in college
- Sem. 1--mechanics, the study of how objects move and interact
- Sem. 2—electricity/ magnetism, how electric charge, potential and currents interact and power our world
- Open to juniors and seniors

## U.S. History

A.P. United States History is not merely a set of dates and facts to be memorized; instead, it will provide you with the analytical skills, historiographical skills and factual knowledge to allow you to discuss, debate and deal critically with the issues in American History from the Colonial Era to the present.

## European History

- Examines world history through European perspective 1450 to present
- Analyze historical perspective of our current global community
- Strengthen verbal/written communication skills, organization, analysis, critical thinking

## Govt. and Politics (US & Comparative)

TWO political science courses designed to help you learn how to read and write for college and to help explain *why* things are the way they are in the US and all over the world, and what you can do about it.  
Open to juniors and seniors.

## Macroeconomics

Offered to seniors second semester, this course will give students a thorough understanding of the principles of economics that apply to an economic system as a whole.

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## Language and Composition

- By studying the art of argumentation, learn to look at the world with a keen and critical eye.
- Learn to creatively write clear and persuasive arguments, not just memorize facts and figures.
- Join a community of people who are passionate, curious, and committed to academic excellence.
- Open to juniors and seniors

## Literature and Composition

- Learn about life while gaining skills that will benefit any career choice.
- Read fiction, write analyses, and discuss stories (in class and online).
- Learn the psychology of relationships, the benefits of compassion, and the importance of being confident.
- Join a community of learners! Open to seniors

## Computer Science

- Design and analyze solutions to problems by implementing algorithms in object-oriented model using the Java programming language
- Read and understand programs consisting of several classes and interacting objects
- Implement the design and development process
- Discuss ethical & social implications of computer use.
- Open to 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> graders who have the

## Studio Art Drawing/2-D Design/3-D

Using creative problem-solving and critical thinking, students will push to new levels of technique and expression.  
Open to juniors and seniors.

## Calculus BC

Calculus BC covers semesters I and II of a traditional college course sequence. Students succeeding on this AP exam may earn from 8 to 10 college credits for their efforts. Open to 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> graders.

## Statistics

- Collecting Data
- Organizing and Summarizing Findings
- Generalizing Results
- Detailed Mathematical Analysis and Reasoning