



In what year of high school should students take AP Biology?

Depending on the program sequence, most students enroll in AP Biology during their junior or senior year. Since a first course in biology and a first course in chemistry are often prerequisites, this allows time for completion of those courses and also gives students time to gain math and laboratory skills. However, there are some schools that teach AP Biology at the sophomore level with no introductory biology course and highly motivated students have been very successful. The most important factor in student success seems to be maturity and motivation. Juniors often outperform seniors, especially as graduation time nears and "senioritis" sets in. -- Carolyn Schofield

What course prerequisites should exist for students wishing to take AP Biology?

Schools vary in their course prerequisites:

- Most consider Biology I to be a prerequisite, though some highly selective schools teach AP as the first and only course for their gifted sophomores.
- Completion of, or at least concurrent enrollment in, chemistry is an almost universal requirement. Many schools feel this ensures a certain level of maturity and helps students during difficult biochemistry sections.
- Some schools require that all three first-year science courses (biology, chemistry, and physics) be completed before a student may enroll in any AP science class. In doing so, their aim is to ensure basic competence before specialization. -- AP Program

How much math does a student need before taking AP Biology?

Math is a vital part of any science course, but trigonometry and calculus are definitely not mandatory. The following mathematical skills seem to be most helpful in the AP Biology course: algebra and geometry basics, rate and percent calculations, knowledge of scientific notation, basic probability that can be applied to statistical analysis, and knowledge of graphing (setup of axes and plotting of data). -- Carolyn Schofield

If a choice must be made, should a student take AP Calculus or AP Statistics?

Both are good courses, so it may come down to the student's interests. While calculus will be required for some college majors and statistics for others, in neither case is it essential to the colleges that the course be taken in high school. College admissions departments are likely to see AP Calculus as a somewhat stronger course (if only because of its more rigorous prerequisites), and that could be a deciding factor for some students. -- Dan Kennedy

What is the difference between AP Calculus AB and BC?

AP Calculus BC is equivalent to at least a year of calculus at any college or university, and so it covers additional topics (for example, vectors and infinite series). The additional topics require about 10 weeks to cover in an AP class. -- Dan Kennedy

Can a student take AP Calculus BC after taking AP Calculus AB?

That was certainly not the intent of the committee that designed the two courses, but there is nothing to stop students from doing it so some do. A student who takes a year of AP Calculus BC after a year of AP Calculus AB will sit in class a long time before seeing anything new. -- Dan Kennedy

What other courses should students take before enrolling in AP Chemistry?

Students should complete a standard high school chemistry course and second-year algebra before enrolling in AP Chemistry. It is also desirable for students to have taken a high school physics course. -- John George

What is the difference between AP Computer Science A and AP Computer Science AB?

The AP CS A course emphasizes object-oriented design and problem solving and covers the topics listed in the Topic Outline. In addition to covering the material in AP CS A, AB students study formal analysis of algorithms (Big-Oh notation); advanced data structures, including two-dimensional arrays, linked lists (singly, doubly, circular), stacks, queues, trees, heaps, priority queues, sets, and maps; and more advanced algorithm development dealing with these advanced data structures. More information can be found by reading the [AP CS A Course Perspective](#) and the [AP CS AB Course Perspective](#) and the [Topic Outline](#). --Joe Kmoch

How do the two AP English courses relate to college and university curricula?

Since both AP English Literature and Composition and AP English Language and Composition have the word "composition" in common, the most obvious category of advanced placement would be composition courses. Fifty years ago college composition was usually a literature course in which students wrote essays. Today, however, most college composition courses are not literature-based. How students apply the AP English courses to college requirements will therefore depend on the type of required composition course the college has. If it has literature-based composition, the literature exam results may be used for credit or advanced placement. If the college has a non-literary composition program, the language exam is more likely to be accepted. In some cases the literature exam results may be used for advanced placement but not credit in non-literary composition programs. In other cases, the literature exam may apply to general education requirements in literature. -- Ron Sudol

How does the AP English Language course differ from AP English Literature?

The principal academic activity in the AP English Language course is rhetorical criticism. In the AP English Literature course, it is literary criticism. For that reason, the primary texts for AP English Language are writings found in real-world communicative contexts, while the primary texts for AP English Literature come from the literary canon. Of course, these categories overlap. Literary works often have functional effects, and functional discourse often makes use of imaginative and artistic language. But in general, the works studied in an AP English Language course are nonfiction or the literature of fact. It should be a comfortable course for bright students who may not have a passion for literature but who can appreciate the power of language in a broad range of non-literary contexts. -- Ron Sudol

Does an AP Economics student have to be strong in math?

Graphical analysis is an important part of each exam, and some tabular analysis is included. But for the most part, the basic skills of addition, subtraction, multiplication, and division are sufficient. -- Peggy Pride

What is the difference between microeconomics and macroeconomics?

Microeconomics studies the market behavior of individual consumers and firms, whose interaction and decision making creates patterns of supply and demand. In turn, this determines the relative prices of goods and factors of production; it also determines the quantities that will be bought and sold. The allocation of resources among competing uses is the central concept in microeconomics. Macroeconomics considers the relationships among broad economic aggregates such as national income, total volumes of saving, investment, consumption expenditure, employment, and money supply. Emphasis on policy actions to affect the performance of the economy and the role of international trade complete the focus of macroeconomics. -- Peggy Pride

Are there any prerequisites for students who want to take AP Environmental Science?

This course is an excellent choice for students who have completed two years of high school laboratory science -- one year of life science and one year of a physical science (for example, a year of biology and a year of chemistry). Students should also have at least a year of algebra under their belts, and a course in earth science would be helpful. Because of these prerequisites, AP Environmental Science is usually taken in either the junior or senior year. -- AP Program

Do AP Environmental Science students have to be strong in math?

There is not a great deal of mathematics in the course, however, a student should be able to do

- basic algebra
- understand percents, scientific notation, and significant figures
- understand statistical validity
- use dimensional analysis (for example, work with units)
- plot data and interpret graphs

--Bill Molnar

What kind of students should take the AP Environmental Science (AP ES) course?

Any student that has an interest in how the natural world works can take the AP ES course. Students should be able to apply the basic facts that they learned in previous science and math classes. Prospective students should also be good readers. Experience shows that the most successful students are those who enter the class with the broadest and deepest background and who are highly motivated. -- Bill Molnar

Are there any prerequisites for students who want to take the AP Spanish Language course and exam?

AP Spanish Language is intended for students who wish to develop their proficiency in all four language skills: listening, speaking, reading, and writing. Students who enroll should already have a basic knowledge of the language and culture of Spanish-speaking peoples and should have attained a reasonable proficiency in listening comprehension, speaking, reading, and writing. Although these qualifications may be attained in a variety of ways, it is assumed that most students will be in the final stages of their secondary school training and will have had substantial course work in the language. -- AP Program

What prerequisites should a student have to take for the AP Spanish Language course?

The AP Spanish Language course covers the equivalent of a third-year college course in advanced Spanish writing and conversation. To qualify for the course, students should already have a basic knowledge of the language and culture of Spanish-speaking peoples and should have attained a reasonable proficiency in listening comprehension, speaking, reading, and writing. -- AP Program

Why should heritage speakers of Spanish take the AP Spanish Language course or exam?

Many heritage speakers can benefit from the practice of the reading and writing skills provided by the AP Spanish Language course. If heritage students already possess these skills and wish to take the AP Spanish Language Exam, it may be in their best interest to do so as the score on the exam would document the student's language ability. In some cases, heritage speakers who are fairly fluent orally may not possess strong writing skills. -- Mary Leech

What skills do students need to succeed on the AP U.S. History Exam?

Students must develop critical and analytical thinking skills in the subject of history. The interpretation of primary source evidence is crucial to performing well on the Document-Based Question (DBQ). This includes an understanding of textual sources (editorials, letters, sermons, speeches) and nontextual sources (graphs, charts, cartoons, photographs, paintings, and maps). The DBQ emphasizes the ability to analyze and synthesize historical data and assess verbal, quantitative, and pictorial materials as historical evidence. Students need to have a strong grasp of factual information, historical cause and effect, and change over time, and they must be able to analyze common themes in different time periods. -- Sue Reeder

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