

Biology Students: Science Course Selection

1. If you are in Biology this year, you have many options for science courses next year. See the course guide for complete descriptions of all of these options. For students looking to complete a standard college-preparatory science sequence, these are your options for those core courses:
 - A. **Environmental Biology:** This is a course that is commonly taken by juniors and seniors to complete three years of science. Some juniors take this course while improving their math skills for another year before taking chemistry or physics during senior year. It is actually two single-semester courses, so taking a full year of Environmental Biology requires students to register for both courses.
 - B. **Chemistry:** Many students take chemistry in high school as part of a college-preparatory sequence. These students will have demonstrated success in math and science courses, including A's and B's in Algebra and Geometry. It does have math and science requirements:

Math: completion of or concurrent enrollment in Advanced Algebra, Geometry / Advanced Algebra Block, or Advanced Algebra / Trig.

Science: You MUST earn a C- or better in both semesters of Biology, and a B- or better is strongly recommended.
 - C. **Chemistry Accelerated:** Students with high ability and interest in science might choose this course. It meets every day for 40 minutes. It does have math and science requirements:

Math: completion of or concurrent enrollment in Advanced Algebra, Geometry / Advanced Algebra Block, or Advanced Algebra / Trig.

Science: You MUST earn a B- or better in both semesters of Biology, and an A- or better is strongly recommended.
 - D. **Physics:** Many students take physics in high school as part of a college-preparatory sequence. These students will have demonstrated success in math and science courses, including A's and B's in Algebra and Geometry. It does have math and science requirements:

Math: completion of or concurrent enrollment in Advanced Algebra, Geometry / Advanced Algebra Block, or Advanced Algebra / Trig.

Science: You MUST earn a C- or better in both semesters of Biology, and a B- or better is strongly recommended.
 - E. **AP Physics 1:** Students with high ability and interest in science might choose this course. It meets every day for 40 minutes. It does have math requirements:

Math: concurrent enrollment in Functions or beyond.

Science: You MUST earn a B- or better in both semesters of Biology, and an A- or better is strongly recommended.

F. **Engineering & Mechanics (combines Physics or AP Physics 1 with POE):** Students with an interest in engineering might take this course. It does have math and science requirements:

Math: concurrent enrollment in Advanced Algebra or beyond (if AP Physics 1 option, Functions or beyond)

Science: You MUST earn a C- or better in both semesters of Biology, and a B- or better is strongly recommended.

FAQ

May I take AP Biology next year?

Only if you are currently doubled up in chemistry. Chemistry is a prerequisite for AP Biology.

I want to take AP Biology. What should I do?

If you meet the math and science grade requirements, enroll in Chemistry or Chemistry Accelerated next year. Then you can take AP Biology in the following year.

Can I take more than one science course next year?

Yes. Just make sure you have completed the prerequisites.

I really like biology. What other life science courses can I take?

AP Biology (if you've completed chemistry), Anatomy & Physiology, Biotechnology, Chemistry for the Health Sciences (if you've completed chemistry), Environmental Biology, Landscape Zoology, or Zoology.

Is there an application process for taking Accelerated Chemistry or AP Physics 1?

No. As long as you meet the math course and science grade requirements, it is "informed choice" self-select. This means your standardized test scores and performance in previous rigorous science courses suggest that you will be successful in these courses.

What is AP Physics 1?

AP Physics 1 is our advanced introductory physics course. While it an introductory physics course, it is fast-paced and prepares students for the AP Physics 1 exam. It is a 40-minute course available to students in grades 10-12 at North Campus.

Do I have to be in Biology Accelerated in order to take AP Physics 1?

No. Students strong in the physical sciences can take AP Physics 1 after completion of Science 9 as long as they meet the math course and science grade requirements.

Are there math considerations for taking AP Physics 1?

Yes. Students in AP Physics 1 must be concurrently enrolled in Functions or beyond. This means that 9th or 10th grade students need to be enrolled in one of the advanced algebra courses (Advanced Algebra, Geometry / Advanced Algebra Block, or Advanced Algebra / Trig) or beyond to enroll in AP Physics 1 for the next year.

What is Engineering & Mechanics?

AHS is introducing the Engineering Experience in 2014. This offers students with an interest in engineering and good ability in math and science the opportunity to take Science and Technology & Engineering courses in a team-taught, project-based learning environment. The first course in the Engineering Experience, Engineering & Mechanics, will pair Physics with Principles of Engineering (POE) in a two-period, everyday block.

Do I have to be in Biology Accelerated in order to enroll in Engineering & Mechanics?

No. Students who meet the math course and science grade requirement may enroll in Engineering and Mechanics.

Are there math considerations for taking Engineering & Mechanics?

Yes. Students in Engineering & Mechanics must be concurrently enrolled in Advanced Algebra or beyond. This means that 10th grade students need to be enrolled in Geometry or beyond in order to enroll in Engineering & Mechanics for the next year.

Do I have to take other courses within the Engineering Experience if I take Engineering & Mechanics?

No. There is no requirement to continue within the Engineering Experience if students take the first course.

Do I have to take Engineering & Mechanics in order to take additional Engineering Experience courses?

No. However, the other courses within the Engineering Experience do have some requirements.

Do I have to be in Introduction to Engineering Design (IED) right now in order to take Engineering & Mechanics?

No. Many students with an interest in engineering are currently enrolled in IED, but it is not required to enroll in Engineering & Mechanics.