

## Science 9 Students: Science Course Selection

1. If you are in Science 9 this year, you should choose a biology course for next year. You must complete 2 semester credits in life science in order to graduate, so this is required.
  - A. **Biology:** This is what most sophomores will take. It is a 40-minute course and meets every day.
  - B. **Biology Accelerated:** Students enrolling in this course should probably be “doubling up” in science, which means that they should also be enrolled in a physics or chemistry course at North Campus. Students choosing this course should also have high ability and interest in science. It meets every day for 40 minutes. It does have science grade requirements: students must earn a B- or better in both semesters of Science 9 to take this course.

### FAQ

#### **I am in Science 9. May I enroll in Biology Accelerated during my sophomore year?**

Yes, if you have met the science grade requirement (B- or better in both semesters of Science 9) AND the necessary skills and dispositions to be successful in an advanced science course AND have a genuine interest in the science and biology.

#### **Do I need to take the Biology Accelerated to prepare me for advanced science courses in grades 11-12?**

Not necessarily, but if you plan on taking AP Biology, you probably want to consider enrolling in Biology Accelerated.

#### **I have high test scores. Should I enroll in Biology Accelerated?**

This depends. The teachers of Biology Accelerated will assume that students are interested in science and want to be in a challenging environment. These students should be genuinely interested in open-ended investigations and an abstract discussion of science concepts.

2. In addition to Biology, you also have the option of “doubling up” on core science courses during your sophomore year. Your options for this (with pre-requisites) are:

**Chemistry:** concurrent in Advanced Algebra or beyond. Must earn a C- or better in both semester of Science 9 (B- or better recommended).

**Accelerated Chemistry:** concurrent in Advanced Algebra or beyond. Must earn a B- or better in both semester of Science 9 (A- or better recommended).

**Physics:** concurrent in Advanced Algebra or beyond. Must earn a C- or better in both semester of Science 9 (B- or better recommended).

**AP Physics 1:** concurrent in Functions or beyond, recommended high achievement in math as measured by standardized test scores. Must earn a B- or better in both semester of Science 9 (A- or better recommended).

**Engineering & Mechanics (combines Physics or AP Physics 1 with POE):** concurrent in Advanced Algebra or beyond. Must earn a C- or better in both semester of Science 9 (B- or better recommended).

## FAQ

### **Why do students double up?**

Students with a high interest and ability in science might double up during their sophomore year. Remember that the courses are college preparatory or college level chemistry and physics, so you should be a strong science student if you are going to do this.

### **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 that your previous performance in advanced science courses and your math course placement should give you a rough idea of whether you might be successful in those courses.

### **What is AP Physics 1?**

AP Physics 1 is our advanced introductory physics course. While it is an introductory 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 the Science 9 / Biology Accelerated Block in order to take AP Physics 1 during my sophomore year?**

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

### **Are there math course and science grade considerations for taking AP Physics 1?**

Yes. Students in AP Physics 1 must be concurrently enrolled in Functions or beyond. This means that 9<sup>th</sup> grade students need to be enrolled in one of the advanced algebra courses (Advanced Algebra, Geometry / Advanced Algebra Block, or Advanced Algebra / Trig) to enroll in AP Physics 1 as a 10<sup>th</sup> grader. Students in AP Physics 1 must have earned a B- or better in both semesters of Science 9, and an A- or better is recommended.

### **What is Engineering & Mechanics?**

AHS introduced 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, pairs Physics with Principles of Engineering (POE) in a two-period, everyday block. While it is not available to grade 9 students, some might be interested in trying it during their sophomore or junior year.

### **Do I have to be in the Science 9 / Biology Accelerated Block in order to enroll in Engineering & Mechanics?**

No. Students who meet the math course and science grade requirement may enroll after the completion of Science 9.

**Are there math course and science grade considerations for taking Engineering & Mechanics?**

Yes. Students in Engineering & Mechanics must be concurrently enrolled Advanced Algebra or beyond. This means that 9<sup>th</sup> grade students must be enrolled in Geometry or beyond in order to enroll in Engineering & Mechanics as a 10<sup>th</sup> grader. Students in Engineering & Mechanics must have earned a C- or better in both semesters of Science 9, and an B- or better is recommended.

**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 freshmen with an interest in engineering are currently enrolled in IED, but it is not required to enroll in Engineering & Mechanics.