

## **AP Chemistry**

A St. Ambrose Academy student who has performed well throughout the entire Advanced Chemistry class will be prepared to take the AP exam provided he or she studies some extra chapters of the textbook. The student must cover chapters 1-20 of the textbook. Most of these chapters will be covered in class, but the student will have to study outside of class.

<https://apstudent.collegeboard.org/apcourse/ap-chemistry/about-the-exam>

**The following description is taken from the College Board AP Website:**

The exam is 3 hours and 15 minutes long and has two sections: multiple-choice and free-response.

**Section I: Multiple Choice** | ~60 Questions | 1 hour and 30 minutes | 50% of Exam Score

- Questions are either discrete questions or question sets, in which you are provided with a stimulus or a set of data and a series of related questions.
- A calculator is not permitted on Section I.

**Section II: Free-Response** | 7 Questions | 1 hour and 45 minutes | 50% of Exam Score

- There are three long- and four short-answer questions.
- The questions assess the following skills: experimental design; quantitative/qualitative translation; analysis of authentic lab data and observations to identify patterns or explain phenomena; creating or analyzing atomic and molecular views to explain observations; and following a logical/analytical pathway to solve a problem.
- You will be allowed to use a scientific or graphing calculator on the entire free-response section of the exam. (A four-function calculator is allowed but not recommended.) See this course's [calculator policy](#) and the [list of approved graphing calculators](#).
- Additionally, you will be supplied with a periodic table of the elements and a formula and constants chart to use on both the multiple-choice and free-response sections of the exam.

## AP Physics

Students at St. Ambrose who have taken Physics are not equipped to take either of the AP Physics C exams. AP Physics 1 and AP Physics 2 differ in their content. AP Physics 1 covers mechanics, work, energy, power, mechanical waves, and simple circuits. AP Physics 2 covers fluids, thermodynamics, electricity, magnetism, and optics.

The Physics class at St. Ambrose covers all of the material on the AP Physics 1 exam (with the exception of circuits) and some of the material on the AP Physics 2 exam. Therefore, if a student wishes to take the AP Physics 2 exam, he or she must study some topics outside of class.

**The following description is taken from the College Board AP Website:**

### AP Physics 1: Algebra-Based

The exam is three hours long and has two sections — multiple-choice and free-response. You can use a four-function, scientific, or graphing calculator throughout the exam, and you will be provided with tables of commonly used physics equations and formulas. See this course's [calculator policy](#) and the [list of approved graphing calculators](#).

**Section I:** Multiple Choice | 50 Questions | 1 hour and 30 minutes | 50% of Exam Score

- Individual questions
- Questions in sets
- Multi-select questions (two options are correct)

**Section II:** Free-Response | 5 Questions | 1 hour and 30 minutes | 50% of Exam Score

- **Experimental Design** (1 question): pertains to designing and describing an investigation, analysis of lab data, and observations to identify patterns or explain phenomena.
- **Quantitative/Qualitative Translation** (1 question): requires you to express a justification or reasoning quantitatively (using numbers, equations, diagrams, etc.) and qualitatively (in words)
- **Short Answer** (3 questions, one requiring a paragraph-length argument)

### AP Physics 2: Algebra-Based

The exam is 3 hours long and has two sections — multiple-choice and free-response. You can use a four-function, scientific, or graphing calculator throughout the exam, and you will be provided with tables of commonly used physics equations and formulas. See this course's [calculator policy](#) and the [list of approved graphing calculators](#).

**Section I:** Multiple Choice | 50 Questions | 1 hour and 30 minutes | 50% of Final Exam Score

- Individual questions
- Questions in sets
- Multi-select questions (two options are correct)

**Section II: Free-response | 4 Questions | 1 hour and 30 minutes | 50% of Final Exam Score**

- **Experimental Design** (1 question): pertains to designing and describing an investigation, analysis of lab data, and observations to identify patterns or explain phenomena.
- **Quantitative/Qualitative Translation** (1 question): requires you to express a justification or reasoning quantitatively (using numbers, equations, diagrams, etc.) and qualitatively (in words).
- **Short Answer** (2 questions, one requiring a paragraph-length argument).

The AP Physics Exams consist of three categories, Category A, Category B, and Category C. Category A is purely conceptual while Category B includes algebra and trigonometry. Category C includes Calculus-level math. There are four AP Physics exams:

AP Physics 1: Algebra-Based  
(Category B) AP Physics 2: Algebra-  
Based (Category B) AP Physics C:  
Electricity and Magnetism AP Physics  
C: Mechanics