

 AP[®] CHEMISTRY
Orientation Jan 22, 2018



Course and Exam Description

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AP Chemistry Course - Overview

- College-level foundation to support future advanced course work in Chemistry
- Cultivate understanding of chemistry through inquiry-based investigations
- AP Chemistry exam given in May (prepared by a testing service)
 - Graded on a scale of 1 to 5, 5 being the highest
 - 3 or above is considered “passing”
 - If you pass the exam colleges/universities may give you credit

AP Chemistry Course - Examination

- AP Conversion Chart AP Chemistry 2017

Composite Score Range	AP Score
79 - 100	5
64 - 78	4
44 - 63	3
28 - 43	2
0 - 27	1

AP Chemistry Exam

- Solve problems mathematically - including symbolically
- Design and describe experiments
- Perform data and error analysis
- Explain, reason, or justify answers, and
- Interpret and develop conceptual models

Students are given a periodic table of the elements and a formula and constants chart.

Scientific Calculator may be used for free-response section

AP Chemistry Exam

Section 1 - No calculators

Multiple choice - 60 questions

1 hour 30 minutes, 50% of Exam Score

Section 2 - Calculators OK

Free response - 7 questions (4 long, 3 short)

1 hr 45 minutes, 50% of Exam score

AP Chemistry Course - Prerequisites

- GUSD - general level high school chemistry with B or above
- College board recommends general high school chemistry and Algebra II

AP Chemistry Course - Content

6 Big Ideas

- Atomic Structure
- Structure - Property Relations
- Transformations
- Kinetics
- Thermodynamics
- Equilibrium

And over and through the whole course - Investigative and Communication Skills (experimental design, data analysis, terminology, modeling).

AP Chemistry Course - Content

6 Big Ideas

- Atomic Structure
 - Periodicity
 - Spectroscopy
 - Stoichiometry
- Structure - Property Relations
 - Classification of Substances
 - Molecules
 - Solutions
 - Phases of Matter

AP Chemistry Course - Content

6 Big Ideas

- Transformations
 - Physical and Chemical Processes
 - Electrochemistry
- Kinetics
 - Rate and Collision Theory
 - Mechanism
 - Observations (measurement)
- Thermodynamics
- Equilibrium

AP Chemistry Course - Content

6 Big Ideas

- Thermodynamics
 - Nature of Heat and Transfer
 - Nature of Chemical Energy
 - Free Energy and Work
 - Calorimetry
- Equilibrium
 - Equilibrium
 - Acid-base
 - Solubility
 - Equilibrium and Thermodynamics

AP Chemistry Course - Class time

- Labs and presentation and discussion of findings
- Colloquia - student presentations related to chemistry topics in the news of particular interest
- Guided Inquiry, discussions, timed tests

AP Chemistry Course - Outside class

- Pre-lab work, lab reports
- Research and preparation for Colloquia
- Reading, notes, watch online lectures
- Simulations
- Studying for tests

Help for signing in to and signing up for a college board account

<https://pages.collegeboard.org/account-help>

Gives you access to previous test questions and answer keys.