

Course Description

Grades 10-12 AP Chemistry

Philosophy Statement: Science instruction equips students to know and experience God's basic eternal truths revealed through His creation. Science deepens the students' faith, understanding, and awareness of the eternal power and divine character of God. (Romans 1:20)

Course Objective: Advanced Placement Chemistry is designed to be the equivalent of the general chemistry course usually taken during the first college year. For some students, this course enables them to undertake, in their first year, second year work in the chemistry sequence at their institution or to register in courses in other fields where general chemistry is a prerequisite.

Textbooks:

Chemistry--The Central Science AP Edition--12th Edition
Brown, LeMay, Bruusten, Murphy, and Woodward
Pearson Prentice Hall, 2012

Materials:

- TI 80's series or higher
 - Note--The AP exam may not allow TI 90 series calculators to be used during the AP Exam.
- Laboratory Notebook (Composition notebook or equivalent)
- Access to the Internet at home

Time Allotment: 45 minutes per day, 5 days per week, Double block time commitments 4 times a quarter.

Course Content:

- Stoichiometry of Chemical Equations
- Reactions in Solutions
- Thermochemistry
- Electronic Structure of Atoms
- Periodic Properties
- Bonding and Molecular Geometry
- States of Matter
- Kinetics
- Thermodynamics
- Equilibrium, Acids, and Bases
- Electrochemistry
- Nuclear Chemistry

Areas to be evaluated:

- Take Home Quizzes
- Exams
- Laboratory Reports