
AP Chemistry Course

Fall 2015

Time and Location

Milpitas Office: Saturdays 10am-12pm.

Cupertino Office: Saturdays 7-9pm.

Purpose of the Course

This course is designed to prepare students for the Chemistry Advanced Placement exam. AP Chemistry involves numerical problem solving and word problem analysis both in the content course and the laboratory. We will provide the student a foundation of knowledge on which to rationalize, summarize and predict the structure and properties of materials that make up chemistry.

Specific Objectives

- To foster scientific habits of mind and body, including objectivity, curiosity, and inventiveness.
- To understand the fundamental concepts and principles of chemistry through the investigation of chemical phenomena, theories and experimental methods.
- To develop problem solving skills and mathematical reasoning.
- To understand the connections chemistry has to society, culture, technology and other sciences.

Text

We will use our own reviewing materials and the book “The Basics of Chemistry” by Richard Myers for reading assignments.

Schedule of Topics

Oct 3, 2015	Introduction: Matter and Measurement P.5-20 Reading: Chap 1-3
Oct 10, 2015	Atoms, Molecules, and Ions Stoichiometry: Calculations with Chemical Formulas & Equations P.21-54 Reading: Chap 5
Oct 17, 2015	Aqueous Reactions and Solution Stoichiometry P.55-82 Reading: Chap 11
Oct 24, 2015	Thermochemistry P.83-96 Reading: Chap 10
Oct 31, 2015	Electronic Structure of Atoms P.97-114 Reading: Chap 4
Nov 7, 2015	Periodic Properties of the Elements P.115-144 Reading: Chap 6
Nov 14, 2015	Basic Concepts of Chemical Bonding P.145-182 Reading: Chap 7
Nov 21, 2015	Molecular Geometry and Bonding Theories P.183-216 Reading: 16, 20
Dec 5, 2015	Gases P.217-234 Reading: Chap 9, 18
Dec 12, 2015	Intermolecular Forces, Liquids, and Solids Modern Materials P.235-274 Reading: Chap 8, 19
Dec 19, 2015	Final Exam (No Lecture, Optional)
