

William P. Clements High School
Chemistry I Honors-Pre AP Course Syllabus

Chemistry I is a study of the properties of the substances making up the world and the interactions of these substances. This course is designed to provide your son or daughter with a strong foundation in this discipline. Strong emphasis is placed on developing problem solving skills, inductive and intuitive reasoning, and laboratory experiences that will be provided to support the discipline of Chemistry I. Honors Chemistry is designed to prepare students for future college science courses.

Topics to be covered in the First Semester include the following:

- Safety
- Matter and Energy
- Measurements and Problem solving skills
- Atomic Structure
- Quantum Mechanics
- Trends in the Periodic Table
- Chemical Bonding (VSEPR Theory & Hybridization)
- Chemical Formulas: Naming, Using, & Determining
- Interpreting and Balancing Chemical Equations
- Types of Chemical Reactions
- Stoichiometry

Topics to be covered during the Second Semester include the following:

- Gas Laws
- Solids and Liquids
- Solution Chemistry and Colligative Properties
- Acids and Bases, Titrations and pH
- Equilibrium
- Thermochemistry
- Oxidation - Reduction reactions
- Nuclear Chemistry

Materials needed by the student

1. Text (MODERN CHEMISTRY)
2. Scientific Calculator (Note: Students will not be allowed to use programmable calculators on quizzes and tests.)

Grading criteria per Nine Weeks

- 50% - daily work (homework, quizzes, lab assignments, etc.)
- 50% - Test and other major grades assigned

Grading criteria per Semester

- 40% first nine weeks
- 40% second nine weeks

20% semester exam