



Course Introduction

The study of Chemistry is an important component of a Science education. Chemistry is part of our everyday lives from washing our hair and clothes to choosing how to cook our food. When we learn about chemical reactions, we can become more informed consumers and more informed stewards of this earth that God has entrusted to us.

Course Description

This honors chemistry course is written as an introduction to Chemistry. This course includes quantitative analysis and an evaluation of our roles within the chemical world. Students will explore the discovery of elements and the components of atoms and molecules. The mathematics of Chemistry including significant figures, numbers of subatomic particles, specific heat capacity, reaction rates, and molar quantities. Students will learn how to interpret and write chemical equations to represent and understand chemical reactions. Nomenclature and stoichiometry will be important components of this introductory course. A brief introduction to organic and nuclear chemistries will also be included.

This is a yearlong course consisting of 15 units. Upon successful completion students will receive 1 credit towards high school graduation.

Course Overview

Semester 1

- Introduction to Chemistry
- The Atom
- The Bohr Model
- The Periodic Table
- Bonding
- Naming Compounds
- Chemical Reactions

Semester 2

- Chemical Quantities and the Mole
- The Gases
- Solution Chemistry
- Thermodynamics
- Reaction Kinetics
- Acids and Bases
- Organic Chemistry
- Nuclear Chemistry

Required Course Materials

Please access the list of course materials from the OC Online book ordering system and order your materials as soon as possible. Oftentimes, course materials are on back order and you may experience a delay in receiving them, causing students to fall behind in their online coursework. When ordering used or rented materials, be careful that online access codes are also current.

Methods of Evaluation

Students will demonstrate mastery through the following formative and summative assessments:

- Assignments: 40% (discussions, written assignments, and lab reports)
- Quizzes: 10%
- Unit Tests: 15%
- Final Exam: 25%
- Participation: 10% (discussion posts, synchronous sessions)