Chemistry Honors

Course Overview and Syllabus

Course Number: SC3210H

Grade level: 9–12

Prerequisite Courses: None

Credits: 1.0

Course Description

This rigorous two-semester course provides students with an engaging honors-level curriculum that emphasizes mathematical problem solving and practical applications of chemistry. Topics are examined in greater detail than general chemistry in order to prepare students for college-level coursework. Course components include atomic theory and structure, chemical bonding, states and changes of matter, chemical and redox reactions, stoichiometry, the gas laws, solutions, acids and bases, and nuclear and organic chemistry. Throughout the course, students participate in a variety of interactive and hands-on laboratory activities that enhance concept knowledge and develop scientific process skills, including scientific research and technical writing.

Course Objectives

Throughout the course, you will meet the following goals:

- Describe the composition, properties, and types of matter.
- Summarize the evolution of the atomic theory and the structure of an atom.
- Examine the relationships among the elements on the periodic table.
- Describe chemical reactions and types of chemical bonds.
- Explain the relationship between chemistry and thermodynamics.
- Recognize the interdependence of organisms and organic chemistry.
- Explore nuclear chemistry and its applications.

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 5–7 hours per week online on the following activities:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning

- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, e-mail, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Quiz	20%
Test	30%
Exam	20%
Assignment	10%
Lab	20%
Additional	0%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: Scientific Inquiry: The Scientific Process

Unit 2: Scientific Inquiry: Analyzing and Communicating Scientific Information

Unit 3: Structure of Atoms

Unit 4: Structure and Properties of Matter: Chemical Bonding

Unit 5: Structure and Properties of Matter: States and Changes of Matter

Unit 6: Structure and Properties of Matter: The Gas Laws

Unit 7: Structure and Properties of Matter: Organic Chemistry and Compounds

Unit 8: Chemical Reactions: Types of Reactions

Unit 9: Chemical Reactions: Stoichiometry

Unit 10: Chemical Reactions: Oxidation-Reduction Reactions

Unit 11: Chemical Reactions: Understanding Solutions