

Department: Science

Course Name: Honors Chemistry

Not offered in 2026-2027

Course Description:

This course is designed to be an advanced high school science course exploring chemistry. Students develop and apply problem-solving skills to laboratory experiments as well as written problems. A conceptual approach to understanding the basic interaction of matter and energy are developed. A scientific calculator is allowed on all assignments requiring calculations. This course serves as a preparatory course for most college-level chemistry programs, as well as for the Advanced Placement Chemistry class. Pre-requisite: Successful completion of Biology, Algebra I and Geometry. Co-requisite: Honors Algebra II/Trigonometry or higher.

Content:

Matter and Measurement

Atoms, Molecules, and Ions

Stoichiometry

Electronic Structure

Periodic Properties

Chemical Bonding

Molecular Geometry

Gases

Kinetics

Equilibrium

Acids and Bases

Aqueous Reactions

Skills:

Gather and analyze data

Apply math skills to chemistry concepts

Apply reason, logic, and basic problem-solving skills

Utilize a learning management system for accessing content, assignments, and assignment submissions

Develop basic spreadsheet skills

Construct lab reports

Text and Materials:

Introductory Chemistry by Nivaldo J. Tro (Pearson 7th ed.)

Methods of Instruction:

Lecture

Interactive lessons

Laboratory experiments

Demonstrations

Computer projects with spreadsheets

Electronic flashcards

Presentation iPad app

Worksheets

Methods of Evaluation:

Tests (including online assessments)

Quizzes
Lab reports
Homework (submitted electronically with LMS)
Class work
Class participation
Lab participation

