General Chemistry I with Lab – C373

Overview

General Chemistry I with Lab for undergraduates provides students seeking initial teacher licensure in chemistry, grades 5-12 with an introduction to the field of chemistry, the branch of science that studies the composition, structure, properties, and behavior of matter. This course provides students with opportunities to examine the electronic structure of atoms, study periodic trends, name chemical compounds, write chemical formulas, determine the structure of molecules, balance chemical reactions, and discover the changing states of matter. Laboratory experiences facilitate the study of matter and the application of laboratory safety and maintenance procedures. Concepts in Science is a prerequisite for this course.

Competencies

- **Lab and Safety Procedures**
  - The graduate conducts safe and effective investigations to examine the physical and chemical characteristics of matter.

- **Electronic Structure and Periodic Trends**
  - The graduate determines the electronic structure of atoms and periodic trends to explain the characteristics and behaviors of chemicals

- **Chemical Naming**
  - The graduate applies IUPAC rules to name compounds and write chemical formulas.

- **Molecular Structure and Bonding**
  - The candidate distinguishes the ways in which chemical bonds and electron orientation impact the structures and behavior of molecules to understand the composition of matter.

- **Chemical Reactions**
  - The graduate writes balanced chemical equations to follow the Law of the Conservation of Mass.

- **Stoichiometry**
  - The graduate applies principles of stoichiometry to determine quantities of materials consumed and produced in chemical reactions.

- **Thermochemistry**
  - The graduate determines quantities of heat released or absorbed during chemical reactions to examine relationships between heat and other forms of energy.

- **States of Matter**
  - The graduate explains how matter changes from one state to another to determine the causes and effects of such transformations.

Learning

Getting Started

Welcome to General Chemistry I! You should begin by locating your General Chemistry I LabPaq materials, which you ordered upon enrolling in Concepts in Science. After locating your LabPaq materials, view the “Get Started” section of the course, which demonstrates how to use the competency diagnostic tool at the beginning of each unit to identify areas in which you are not yet competent so you can plan your study time accordingly. Each course unit aligns to a single course competency and includes readings, videos, knowledge checks, discussions, labs, and simulations that will help you build and apply your chemistry knowledge and skills. At the end of each unit, complete the competency check to gauge your progress after completing the recommended lessons. If you find that your performance on the competency check has not improved as a result of completing the recommended lessons, reach out to a course mentor for support. Competency will be demonstrated by the successful completion of both an objective and performance assessment.

Assessments

- **Preassessment: General Chemistry I with Lab**
  - Status: Not Attempted
  - # of Items: 55
  - Time Allocated: 150 minutes
  - Code: PYVC

- **Objective Assessment: General Chemistry I with Lab**
  - Status: Not Attempted
  - # of Items: 60
  - Time Allocated: 150 minutes
  - Code: YVC1
Performance Assessment: Application of General Chemistry I with Lab

Status: Not Attempted
Code: YVT1

A score of Competent or Exemplary is required to pass all assessments. Passing a preassessment does not guarantee you will pass the high-stakes assessment. On objective assessments, you will be charged a retake fee for the third attempt and every attempt thereafter. For more information, click here.

Course Instructor
Course Instructor Group
  chemistry@wgu.edu

Announcements
Course Tips
Course Search
Course Chatter