

J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: CHM 101

Credits: 4

Course Title: Introductory Chemistry I

Course Description: Emphasizes experimental and theoretical aspects of inorganic, organic, and biological chemistry. Discusses general chemistry concepts as they apply to issues within our society and environment. Designed for the non-science major. Part I of II. Prerequisite: Competency in Math Essentials (MTE), units 1- 5, as demonstrated through the placement and diagnostics tests or Co-requisite of MTH 154 or equivalent. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

General Course Purpose:

Provide the non-science major with a laboratory science. Credits earned from this course do not satisfy the requirements of a laboratory science course in the AS degree in Science.

Course Prerequisites and Co-requisites:

Prerequisites: Competency in Math Essentials (MTE), units 1-5, as demonstrated through the placement and diagnostics tests or Co-requisite of MTH 154 or equivalent

Student Learning Outcomes:

Upon completing the course, the student will be able to

- a. Apply the basic concepts of chemistry to explain the interaction of different forms of matter;
- b. Solve problems related to these concepts;
- c. Carry out and interpret basic experiments related to these concepts; and
- d. Explain clearly and concisely the methods and reasoning used to accomplish the above objectives.

Major Topics to Be Included:

- a. General principles of chemistry
- b. Matter, energy, and measurement
- c. Atoms and atomic theory
- d. Chemical bonds
- e. Chemical reactions
- f. Gases, liquids, and solids
- g. Solutions and colloids
- h. Reaction rates and chemical equilibrium

Date Created/Updated (Month, Day, and Year): January 1, 2019