

**J. Sargeant Reynolds Community College  
Course Content Summary**

**Course Prefix and Number:** CHM 101

**Credits:** 4

**Course Title:** General Chemistry I

**Course Description (including lecture hours, lab hours, total contacts)**

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. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**General Course Purpose**

Provide the non-science major with a laboratory science that is relevant to issues related to society and the environment. Provides non-science majors 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/Corequisites** (*Entry-level competencies **required** for enrollment*)

Prerequisites: none, although completion of MTH 3 is recommended.

**Course Objectives** (Each item should complete the following sentence.)

Upon completing the course, the student will be able to:

- a. Discuss the application of general scientific principles to given specific environmental problems and other problems of chemical origin.
- b. Discuss the application of general chemical principles to given specific environmental problems and other problems of chemical origin.
- c. List the major chemical contributions to environmental quality or lack thereof.
- d. Demonstrate a conceptual understanding of general chemical principles through writing, problem solving, and library or Internet research projects.

**Major Topics to be Included**

- a. Atmospheric and natural water content and pollution
- b. Global warming
- c. Chemical aspects of energy production and consumption
- d. Acid precipitation
- e. Nuclear fission
- f. Alternate energy sources
- g. Plastics and polymers, drug design, human nutrition
- h. Chemical principles

**Effective Date of Course Content Summary (Month, Date Year):** 02/16/09