

# CH 221 : General Chemistry I

Explores measurements, properties of matter, nomenclature, atomic theory, chemical periodicity, and chemical bonding. Recommended for the following majors and pre-professional degrees: chemistry, natural science, engineering, medicine and dentistry. This is the first course in a three course sequence.

Chemistry 221 is the first of a three term chemistry sequence designed to provide a year of general chemistry to science majors (5 credits/term). It will meet transfer school requirements for such science majors as: chemistry, physics, chemical engineering, pre-medicine, and other pre-professional programs. The class consists of lecture and laboratory. The lecture time is used to provide the student with foundational chemical concepts and mathematical applications to chemistry. The laboratory re-enforces concepts presented in lecture and provides the student a hands-on opportunity to explore these.

**Credits** 5

## **Prerequisites**

Passing score on the chemistry competency exam or completion of a year of high school chemistry with a grade of C or better within the last three years.

## **Subject**

Chemistry

## **Course Outcomes**

Upon completion of this course the students should be able to:

- Demonstrate a basic ability to use effective written and/or oral communication through the application of general chemistry concepts and reasoning using the language of chemistry.
- Demonstrate an emerging understanding of how general chemistry impacts the natural and technological environments.
- Demonstrate a basic ability to use detailed data collection, analysis and collaborative skills in order to explore general chemical principles, critically evaluate models and information, draw conclusions and communicate results in the context of the material covered in General Chemistry I.
- Demonstrate an emerging understanding of chemical principles and collaborative skills to effectively solve problems encountered in general chemistry using appropriate computational and reasoning skills.

## **Prerequisite Courses**

MTH 111Z

WR 115

RD 115