

CHEM 161 : General Chemistry I

Basic principles of inorganic chemistry with an emphasis on problem solving. First course of a two-course sequence designed to meet the one-year General Chemistry requirement for pre-med, science and engineering majors. Topics include chemical calculations, electronic structure, chemical bonding, states of matter and solutions.

Credits 3

Lecture Hours 3

Designation

DP

Recommended Preparation

Student should have taken high school chemistry, CHEM 100, or CHEM 151.

Prerequisites

A grade of "C" or better in Math 103 or higher, or placement into Math 135 or consent of instructor

Corequisites

Registration in CHEM 161L.

Course Outcomes

- Use the mole concept in solving stoichiometry problems involving solids, liquids, gases and solutions.
- Balance chemical equations, classify reactions, identify and analyze the role of the chemicals involved in chemical reactions.
- Predict the behavior of gases while undergoing changes in volume, pressure, temperature and quantity.
- Manipulate thermochemical equations and calculate the amount of energy involved in chemical reactions.
- Predict physical and chemical properties of elements based on electronic structure and location in the Periodic Table.
- Predict physical and chemical properties of compounds based on chemical bonding, geometry and intermolecular interactions.