CH 222Z : GENERAL CHEMISTRY II

Transcript title
General Chemistry II

Credits
4

Grading mode
Standard letter grades

Total contact hours
40

Lecture hours
40

Prerequisites
CH 221Z and CH 227Z.

Corequisites
CH 228Z.

Course Description
Explores and applies principles presented in CH 221Z to the study of the solid, liquid, and gaseous states of matter. Principles of stoichiometry, thermochemistry, kinetics, and foundational equilibrium are explored and applied to the study of aqueous and gas-phase chemical reactions. CH 222Z is a lecture course; CH228Z is the laboratory component.

Course learning outcomes
1. Apply stoichiometry to a variety of problems involving reactions, gases, liquids, solutions, thermochemistry, kinetics, and equilibrium expressions.

2. Apply kinetic molecular theory and gas laws to predict the behavior of gases at various conditions.
3. Identify types of intermolecular forces and apply them to physical properties of solids, liquids, and solutions.
4. Describe solution concepts and factors affecting solution properties.
5. Determine the effects of different factors on chemical reaction rates and examine the role of catalysis in modifying these rates.
6. Apply concepts of thermochemistry to explain thermal energy transfer and the energy changes that accompany chemical and physical changes.

7. Identify and apply appropriate equations related to gas laws, solutions, colligative properties, thermochemistry, kinetics, and equilibrium expressions.

General education/Related instruction lists
- Science Lab