

General Chemistry Syllabus Outline

Course Information

Course Title:

General Chemistry I

Course Code:

CHEM 101

Semester:

[Semester Year]

Instructor:

[Instructor Name]

Contact:

[Email Address]

Office Hours:

[Days, Time, Location]

Course Description

Introduction to the fundamental concepts of chemistry including atomic structure, chemical bonding, stoichiometry, thermochemistry, chemical reactions, and properties of gases, liquids, and solutions.

Learning Outcomes

- Demonstrate understanding of atomic and molecular theory.
- Apply principles of chemical bonding and stoichiometry.
- Analyze and solve problems involving chemical reactions.
- Interpret thermochemical data and perform basic calculations.
- Relate properties of gases, liquids, and solutions to their chemical behavior.

Weekly Schedule

1. Introduction & Scientific Methods
2. Atoms, Molecules, and Ions
3. Stoichiometry & Chemical Equations
4. Reactions in Aqueous Solutions
5. Thermochemistry
6. Electronic Structure of Atoms
7. Periodic Table & Periodic Trends
8. Chemical Bonding I (Lewis Structures)
9. Chemical Bonding II (Molecular Geometry)
10. Gases and Their Properties
11. Liquids, Solids, and Intermolecular Forces
12. Solutions and Their Behavior
13. Review & Final Assessment

Assessment

- Quizzes: 15%
- Laboratory Work: 20%
- Midterm Exam: 25%
- Final Exam: 30%
- Homework & Participation: 10%

Course Policies

- Attend all lectures and labs as scheduled.
- Follow safety regulations in the laboratory at all times.
- Submit assignments by posted deadlines.
- Academic honesty is expected in all course activities.

Required Materials

- Textbook: [General Chemistry, Author, Edition]
- Lab Manual: [Title, Author]
- Scientific Calculator
- Personal Protective Equipment (for lab)