



Jordan University of Science and Technology
Faculty of Science & Arts
Chemistry Department

CHEM101 General Chemistry (I) - JNQF Level: 7

Summer Semester 2023-2024

Course Catalog

3 Credit Hours. This course targets to teach students the basic principles of general chemistry. The first part of the course will cover the fundamental aspects of matter and measurements, stoichiometry, and electronic structure of atoms. The second part will cover the periodic table properties, chemical bonding and molecular geometry. The final part will cover the properties of gases and liquids together intermolecular forces. The course will be illustrated with many examples for each chemical aspect along with applications in modern and contemporary life technology.

Teaching Method: On Campus

Text Book

Title	CHEMISTRY The Central Science
Author(s)	Brown, LeMay, Bursten, Murphy and Woodward
Edition	10th Edition
Short Name	Text book
Other Information	

Instructor

Name	Prof. Yahya Tahboub
Office Location	D3 L-0
Office Hours	Sun : 11:30 - 12:30 Sun : 12:30 - 13:30 Mon : 11:30 - 12:30 Mon : 12:30 - 13:30 Tue : 12:30 - 13:30 Wed : 11:30 - 12:30
Email	tahboub@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Sun, Mon, Tue, Wed : 08:30 - 10:00
Room: NF37

Section 2:
Lecture Time: Sun, Mon, Tue, Wed : 10:00 - 11:30
Room: NF37

Tentative List of Topics Covered

Weeks	Topic	References
Week 1	Introduction: Matter and Measurement	Chapter 1 From Text book
Weeks 2, 3	Stoichiometry: Calculations with Chemical Formulas and Equations	Chapter 3 From Text book
Week 4	Aqueous Reactions and Solution Stoichiometry	Chapter 4 From Text book
Weeks 5, 6	Electronic Structure of Atom	Chapter 6 From Text book
Weeks 7, 8	Periodic Properties of the Elements	Chapter 7 From Text book
Weeks 9, 10	Basic Concepts of Chemical Bonding	Chapter 8 From Text book
Weeks 11, 12	Molecular Geometry and Bonding Theories	Chapter 9 From Text book
Weeks 13, 14	Gases	Chapter 10 From Text book
Weeks 15, 16	Liquids and Intermolecular Force	chapter 11 From Text book

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Understand the concepts of matter and measurements, atoms and ions, and stoichiometry. [1a, 1c, 1e] [1L7K1, 1L7S2, 1L7C2]	30%	
Recognize the different types of chemical reactions in solutions, electronic structure of atoms, and periodic table properties. [1b, 1c, 1e, 1k] [1L7K1, 1L7S2, 1L7C2]	30%	
Understand the concepts of chemical bonding and molecular geometry, and the properties of gases. [1a, 1e, 1k] [1L7K1, 1L7S2, 1L7C2]	40%	

Relationship to Program Student Outcomes (Out of 100%)

a	b	c	d	e	f	g	h	i	j	k
23.33	7.5	17.5		30.83						20.83

Relationship to NQF Outcomes (Out of 100%)

L7K1	L7S2	L7C2
33.33	33.33	33.33

Evaluation	
Assessment Tool	Weight
Midterm exam	50%
final exam	50%

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