Course Specification
Student Version

Course Title:	Introduction to Chemistry
Course Code:	CHEM 101
Department:	Common Sciences
Program:	Bachelor Dental Surgery
College:	Vision College in Riyadh
Institution:	Vision College in Riyadh
Revised:	July 2025

A. Course Identification

1. Credit hours: 3 (2+1+0)
2. Level/year at which this course is offered: Level 2/Year 1
3. Pre-requisites for this course (if any): None
4. Co-requisites for this course (if any): Biochemistry

B. Teaching Methods

1	Interactive Lectures
2	Assignments
3	Practical Sessions

C. Course Description and Main objective

1. Course Description

This Course is designed to give students the basic knowledge necessary to understand the basic concept of Organic Chemistry (classification, preparation, properties), Physical Chemistry (Mole concept, balancing of equation & physical properties of solution).

2. Course Main Objective

The main objective of this course is to develop a conceptual understanding of the principle of Chemistry and gain a basic knowledge necessary to understand chemical reaction and balance chemical equation and atomic structure of element.

3. Course Main Objectives:

At the end of this course the students will be able to:

- Discuss different kinds of organic compounds and their reactions
- Describe the structure of different types of organic compounds
- Discuss chemical equations, mole concepts and theories of acids and bases
- Perform basic chemical experiments with high precise performance
- Apply problem-solving technique.

D. Course Content

No.	List of Topics
Theoretical Lectures	
1	Introduction to Organic Chemistry Part 1
2	Introduction to Organic Chemistry Part 2
3	Saturated hydrocarbons (alkanes)
4	Unsaturated hydrocarbons (alkenes)
5	Alcohol and phenols Part 1

6	Alcohol and phenols Part 2
7	Aldehydes and ketones
8	Carboxylic Acids /Amines
9	Chemical Reactions and Mole Concept
10	Periodic Table and Chemical Bonding
11	Theories of Acids and Bases Part 1
12	Theories of Acids and Bases Part 2
13	Physical Properties of Solutions
14	Project
15	Revision
Practical Sessions	
1	Elements and Compounds
2	Measurement of Mass and Volume
3	Make Standard Solution
4	Acids, Bases and pH
5	Acid Base Titration
6	Types of Chemical Reactions - part 1
7	Types of Chemical Reactions - part 2
8	Some Reactions of Hydrocarbons
9	Properties of Alcohols and Phenols
10	Aldehydes and Ketones
11	Revision

E. Assessment tools

#	Assessment task	Time	Percentage of Total Assessment Score
1	Assignments and project – each assignment 2.5 marks	During the semester	10 %
2	2 Quizzes – each 5 marks	First Q (week 5 - 6) Second Q (week 10 - 11)	10 %
3	Midterm Exam	Week (7 – 8)	20%
4	Practical exam	Practical Exam Weeks	20%
5	Final Written exam	Final Exams Weeks	40%
	Total		**100%**

F. Learning Resources

Required Textbooks	JAMES E- BRADY, 2003: General Chemistry.
Essential Reference Material	//
Electronic Material	Electronic version of the book