Department of Chemistry

College of Science

University of Salahaddin

Subject: General Chemistry

Course Book – First Stage Students

Lecturer's name:

Theoretical part: Dr Suzan salahaddin Taha

Practical part: Dr Suzan salahaddin Taha, MSc Hero Rahman

Academic Year: 2023/2024

Course Book

1. Course name	**General Chemistry**
2. Lecturer in charge	**Dr Suzan salahaddin Taha**
3. Department/ College	**Physical /Science**
4. Contact	**e-mail: Suzan. taha @su.edu.krd**
5. Time (in hours) per week	**Theory: 1hr** **Practical: 2 hr**
6. Office hours	**Tuesday 09:30– 10:30** **Monday 1.30 – 2.30**
7. Course code	
8. Teacher's academic profile	**Background** BSc in Chemistry from College of Science - Salahaddin University MSc in analytical Chemistry –College of Science – salahaddin University PhD in analytical Chemistry / instrumental analysis - **Research interests** • Design and optimisation of methods for the separation and analysis
9. Keywords	Organic compounds, analytical preparation, inorganic chemistry , physical properties, chemical reactions

11. Course objective:

- The main objective of this course is to build foundation knowledge of general chemistry required in later advanced levels.
- To familiarise the students with different compounds and the physical and chemical properties of each.
- Build necessary skills required for students to tackle research problems based on the knowledge acquired throughout the course.

12. Student's obligation

- The student must attend all lectures and practical lab sessions
- Should submit weekly reports on practical experiments
- Students must sit two exams throughout the academic year in addition to a final exam on the given topics

13. Forms of teaching

Learning resources in this course include white board, lecture notes, PowerPoint presentations and examples from real life phenomena and situations.

14. Assessment scheme

Breakdown of overall assessment and examination
A total of 100 marks are distributed as follows:

- A total of 50 marks is calculated based on students' efforts throughout the course including: exams, quizzes and class attendance and activity. This is distributed over both theoretical and practical parts
- A final examination in topics given throughout the course (accounts for 50 marks)

15. Student learning outcome:

By the end of this course the students should be:

- Familiar with the basic principles of chemistry
- Able to identify some of the main compounds
- Understand the driving physical and chemical characteristics behind different properties exhibited by ompounds
- Identify the areas where organic chemistry is applied and their significance in science

16. Course Reading List and References:

- Efficiently Studying Organic Chemistry: for students of chemistry, biochemistry, biology, pharmacy, and medicine By Eberhard Breitmaier, Second revised edition, 2016
- Modern Analytical Chemistry; by David Harvey.
- 2. Fundamentals of Analytical Chemistry; Eighth Edition, by Douglas A. Skoog, Donald M.
- Organic Chemistry, Robert Thornton Morrison, Robert Neilson Boyd, Sixth edition, Prentice Hall, 1998

17. The Topics:	Lecturer's name
Week 1:	

Week 1. Introduction to chemistry **Week 2-4:** analytical chemistry and solution Define analytical chemistry Type of solution, classified of solution and preparation of chemical solution **Week 3 - 6**: atomic structure Atomic weight , atomic number ,periodic table ,and parts of atom **Week 7 - 11**:	
18. Practical Topics (If there is any)	
Experiment (1): determination of density **Experiment (2):** preparation of solid and liquids **Experiment (3):** Physical Properties of Organic Compounds: Determination of Melting Point (m.p.) **Experiment (4):** Physical Properties of Organic Compounds: Determination of Boiling Point (b.p.) **Experiment (5):** Simple Distillation **Experiment (6):** Separation of Compounds Based on size Experiment (7): titration and standaration of acid and base	

19. Examinations:

A typical exam question may include a combination of the following:

- Definitions
- Identifying the products of chemical reactions
- Giving explanations for facts and phenomena
- Outlining reaction mechanisms
- Gap filling
- Drawing glassware and identifying lab equipment

20. Extra notes:

21. Peer review