

Mutah University

Faculty of Science

Chemistry Department



جامعة مؤتة

كلية العلوم

قسم الكيمياء

General Chemistry Lab (1) Syllabus

Course Code	Course Name	Credits	Contact Hours
0303105	General Chemistry Lab (1)	1	48

INSTRUCTOR/COORDINATOR

Name	Dr. Waleed Atef Manasreh
Email	dr_waleed@mutah.edu.jo
Website	https://academics.mutah.edu.jo/dr_waleed

TEXTBOOK

J.A. Beran, 2014, Manual for Principles of General Chemistry, 10th edition.

SPECIFIC COURSE INFORMATION

A. Brief Description of the Content of the Course (Catalog Description)

This Lab include experiments that cover:

1. General safety in the laboratory,
2. Identification and use of laboratory equipment and tools,
3. Experiments containing chemical calculations
4. Descriptions of the elements in the periodic table,
5. bases,
6. acids,
7. oxidation and reduction

B. Pre-requisites (P) or Co-requisites (C)

0303101 General Chemistry (1)

C. Course Type (Required or Elective)

Required (Compulsory Faculty course)

SPECIFIC GOALS

A. Specific Outcomes of Instruction

Students will gain the ability to:

- Conduct common laboratory techniques including pH measurement, acid/base titrations, UV/Visible spectroscopy in both emission and absorption mode, calorimetry, and colorimetry. **[SLO 6]**
- Implementing the techniques mentioned above to solve chemical problems. **[SLO 6]**
- Carry out self-directed experiments **[SLO 6]**
- Work in a Team to conduct practical laboratory experiments **[SLO 5]**
- Communicating experiment results **[SLO 3]**

B. Student Outcomes Addressed by the Course

1	2	3	4	5	6	7
		✓		✓	✓	

BRIEF LIST OF TOPICS TO BE COVERED

List of Topics	No. of Weeks	Contact Hours
General safety in the laboratory	1	3 hours
Identification and use of laboratory equipment and tools	1	3 hours
Physical Identification of Compounds	1	3 hours
Chemical Identification of Compounds	1	3 hours
Determination of Water content	1	3 hours
Limiting Reactant	1	3 hours
Periodic Table and its Laws	1	3 hours
Substitution Reactions	1	3 hours
Oxidation and Reduction Reactions	1	3 hours
Acids and Bases	1	3 hours
Volumetric Analysis	1	3 hours
Copper Chemistry	1	3 hours
Final Exam	1	3 hours
Total	16	48 hours

METHODS OF ASSESSMENT

No.	Method of assessment	Week and Date	%
1	First Mid-term exam	8 th week	30
2	Homework, Quizzes, Attendance	During the Semester	20
4	Final Examination	Final Week	50
Total			100