

<b>University of Petra</b>		 جامعة البترا - عتقون علمنا Petra University Anniversary
<b>Faculty of Art &amp; Science</b>		كلية الآداب والعلوم
<b>Department of Chemistry</b>		قسم الكيمياء

## Course Syllabus

Year : 2019 / 2020

Semester: First

Course No.	Course Title	Prerequisite	Co-requisite	Credit Hours Lectures /Lab.	ECTS European Credit Transfer System
101106	General Chemistry Laboratory (1)	None	101101	1	3

Instructor Name	e-mail	Office No.	Office ext.	Office Hours
Amal almaareef	aalmaareef@uop.edu.jo	7214	7214	Sun , Tue, Thu 9:00 – 11:00 11:00 -12:00 Sun., Tue.

<b>Coordinator's Name:</b> (if applicable)	Amal almaareef
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<b>Short Course Description</b>	<p>This course introduces basic ideas of practical general chemistry covering: safety laboratory instructions, introduction to laboratory equipments, qualitative analysis (chemical tests for some anions and cations), quantitative analysis (experiments for determination of: density of solids &amp; liquids, empirical formula of a compound, limiting reactant, formula of hydrated copper(II) sulfate, volumetric analysis, vinegar analysis, chemicals in everyday life).</p> <p>This course is designed to augment General chemistry 101101.</p>
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### Course Objectives

- To instill in students a sense of enthusiasm for general chemistry, an appreciation of its application in different contexts and to involve them in an intellectually stimulating and satisfying experience of learning and studying.
- To develop in students the ability to apply their chemical knowledge and skills to the solution of theoretical and practical problems in general chemistry.
- To provide students with a knowledge and skills base from which they can proceed to further studies in specialized areas of chemistry or multi-disciplinary areas involving chemistry.
- To generate in students an appreciation of the importance of chemistry in an industrial, economic, environmental and social context.
- To provide students with a broad and balanced foundation of chemical knowledge and practical skills.

**Course Intended Learning Outcomes (ILOs) and their Alignment with Program ILOs, Teaching and Learning Methods, and Assessment Methods:**

Upon successful completion of this course, students are expected to achieve the following learning outcomes:

<b>Course ILOs</b>	<b>Program ILOs</b>	<b>Teaching and Learning Method</b>	<b>Assessment Method</b>
<b>Knowledge (K)</b>			
Demonstrate knowledge and understanding of essential facts and perform experiments that related to all experiments mentioned in the laboratory manual.	K1	Lectures & make experimental	Reports, discusion, exams, and homework
<b>Intellectual Skills (I)</b>			
Estimate chemical data by performing calculations related to all experiments mentioned in the laboratory manual.	I2	Lectures & make experimental	Reports, discusion, exams, and homework
<b>Practical skills (P)</b>			
Describe the nature and behavior of chemical compounds, their classification, chemical structure and reactivity.	P3	Lectures & make experimental	Reports, discusion, exams, and homework
Use of laboratory equipment and standard procedures & safely.	P1	Lectures & make experimental	Reports, discusion, exams, and homework
<b>Transferable Skills (T)</b>			
Communication skills, covering both written and oral communication.	T1	Lectures & make experimental	Reports, discusion, exams, and homework

**Course Schedule:**

Week	Topic Details	Course ILO number	Reference
1	<b>and Laboratory Rules Introduction : Safety</b> 1. Explain the safety and laboratory rules which the student dealt with. 2. Introduction to laboratory equipments	P1& T1	Laboratory Manual
2	<b>The density of solids and liquids:</b>	K1& P2 P1& T1	Laboratory Manual
3	<b>Chemical tests for some anions:</b>	K1&P3 P1& T1	Laboratory Manual
4	<b>Empirical formula of a compound</b>	K1&P3 P1& T1	Laboratory Manual
5	<b>Finding the Formula of Hydrated Copper(II) Sulfate</b>	K1&P3 P1& T1	Laboratory Manual
	<b>Midterm Exam</b> Theoretical Exam involving the first 5 experiments.		
6	<b>Properties of Inorganic Compounds</b>	K1& P2&P3 P1& T1	Laboratory Manual
7	<b>Chemicals in everyday life</b>	K1& P2&P3 P1& T1	Laboratory Manual
8	<b>Volumetric Analysis Acid / Base Titration</b>	K1& P2&P3 P1& T1	Laboratory Manual
9	<b>Vinegar Analysis</b>	K1& P2&P3 P1& T1	Laboratory Manual
10	<b>Limiting Reactant:</b>	K1& P2&P3 P1& T1	Laboratory Manual

### Assessment Methods and Grading System:

Assessment method	Grade	Comments
Midterm Exam	30	
Reports	20	
Evaluation	10	
Final Exam	40	
<b>Total</b>	<b>100</b>	

### Learning References:

<b>1- Textbook (s):</b>
1. General Chemistry Laboratory Manual , Prepared by: Richard E. Bleil, Ph.D. 2005
2. General Chemistry 101101 Laboratory Manual, by Lina Hanania, Layla Qaddoura and Maysaa Saleh, 2007, Bookshop.
<b>2- References:</b>
<b>3- Other Resources:</b>
<<Labs, computer resources, lecture rooms needed for the course>>

### Course Policies<sup>1</sup>

- Attendance Policy: University regulations apply to attendance.
- Academic Honesty: Academic dishonesty is an unacceptable mode of conduct, and will not be tolerated in any form at University of Petra. All persons involved in academic dishonesty and plagiarism in any form will be disciplined in accordance with University rules and regulations.

Approved by	Name	Date	Signature
Coordinator of Curriculum Committee	Dr. Abdel Monem Twaiq		
Faculty Dean/ Head of Department	Prof. Rami Abdel Raheem		

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<sup>1</sup> Additional information may be added in this section according to the nature of the course.