



جامعة الزيتونة الأردنية
Al-Zaytoonah University of Jordan
كلية العلوم وتكنولوجيا المعلومات
Faculty of Science and information
Technology

فكر حضاري وحوار متمدن
Civilized Thought ...Civilized

"عراقة وجودة"
"Tradition and Quality"

Dialogue

QF04/0408-4.0E	Course Plan for Bachelor program - Study Plan Development and Updating Procedures/ Department of Basic Sciences
----------------	--

Study plan No.	2024/2025		University Specialization		Bachelor of Physical Therapy
Course No.	0420821		Course name		Practical General Chemistry
Credit Hours	1		Prerequisite/ Co-requisite		*General Chemistry For Medical Sciences
Course type	<input type="checkbox"/> MANDATORY UNIVERSITY REQUIREMENT	<input type="checkbox"/> UNIVERSITY ELECTIVE REQUIREMENTS	<input type="checkbox"/> FACULTY MANDATORY REQUIREMENT	<input type="checkbox"/> Support course family requirements	<input type="checkbox"/> Mandatory requirements <input type="checkbox"/> Elective requirements
Teaching style	<input type="checkbox"/> Full online learning		<input type="checkbox"/> Blended learning		<input type="checkbox"/> Traditional learning
Teaching model	<input type="checkbox"/> 1 Synchronous: 1 asynchronous		<input type="checkbox"/> 1 face to face : 1 asynchronous		<input type="checkbox"/> 1 Traditional

Faculty member and study divisions' information (to be filled in each semester by the subject instructor)

Name	Academic rank	Office No.	Phone No.	E-mail	
Division number	Time	Place	Number of students	Teaching style	Approved model
				Traditional Learning	1 Traditional

Brief description

This course covers the practical applications of the most important theoretical concepts covered in the General Chemistry course, such as qualitative and quantitative studies, stoichiometry, volumetric analysis, and thermochemical changes.

Learning resources

Course book information (Title, author, date of issue, publisher ... etc)	Laboratory Manual for General Chemistry, Prepared by M. Sc. Sawsan Shraim, 2021, Al-Zaytoonah University of Jordan				
Supportive learning resources (Books, databases, periodicals, software, applications, others)	1. Chemistry in the Laboratory, James M. Postma (<i>California State University, Chico</i>), Julian L. Roberts (<i>University of Redlands</i>), Anne Roberts, 8 th edition, 2017 2. Chemistry, The Central Science, Brown, Le May, Bursten Prentice Hall, 14th edition (2017). 3. Chemistry, by Raymond Chang , Kenneth Goldsby, 12 th edition, AP student edition, 2016.				
Supporting websites					
The physical environment for teaching	<input type="checkbox"/> Class room	<input type="checkbox"/> labs	<input type="checkbox"/> Virtual educational platform	<input type="checkbox"/> Others	
Necessary equipment and software	Moodle				
Supporting people with	-				



جامعة الزيتونة الأردنية
Al-Zaytoonah University of Jordan
كلية العلوم وتكنولوجيا المعلومات
Faculty of Science and information
Technology

فكر حضاري وحوار متمدن
Civilized Thought ...Civilized

"عراقة وجودة"
"Tradition and Quality"

Dialogue

QF04/0408-4.0E	Course Plan for Bachelor program - Study Plan Development and Updating Procedures/ Department of Basic Sciences
special needs	
For technical support	E-Learning & Open Educational Resources Center. Email: elarning@zuj.edu.jo ; Phone: +962 6 429 1511 ext. 425/362.

Course learning outcomes (S= Skills, C= Competences K= Knowledge,)

No.	Course learning outcomes	The associated program learning output code
Knowledge		
The student should be able to:		
K1	Recognize the proper basics of safe lab work.	MK1
K2	Outline standard laboratory procedures.	MK1
K3	Report observations and results.	MK1
Skills		
The student should be able to:		
S1	Perform lab procedures for experiments covered in this course and present the results.	MS4
S2	Interpret data and observations obtained from performed experiments.	MS4
S3	Use instruments, glassware and chemicals properly and safely.	MS4
S4	Manage the risks of chemical substances and procedures.	MS4
Competences		
C1	Develop his/her professional and personal performance by continuously attending labs, submitting reports on time, and work effectively within groups.	MC3

Mechanisms for direct evaluation of learning outcomes

Type of assessment / learning style	Fully electronic learning	Blended learning	Traditional Learning (Theory Learning)	Traditional Learning (Practical Learning)
Midterm exam	30%	30%	30%	0%
Participation / practical applications	0	0	0	60%
Asynchronous interactive activities	30%	30%	30%	0%
Final exam	40%	40%	40%	40%

Note 1: Asynchronous interactive activities are activities, tasks, projects, assignments, research, studies, projects, work within student groups ... etc, which the student carries out on his own, through the virtual platform without a direct encounter with the subject teacher.

Note 2: According to the Regulations of granting Master's degree at Al-Zaytoonah University of Jordan, 40% of final evaluation goes for the final exam, and 60% for the semester work (examinations, reports, research or any scientific activity assigned to the student).



QF04/0408-4.0E	Course Plan for Bachelor program - Study Plan Development and Updating Procedures/ Department of Basic Sciences
----------------	--

Schedule of simultaneous / face-to-face encounters and their topics

Week	Subject	learning style*	Reference **
1	Introduction and Check-in		
2	Instructions and Lab. Equipment	Lecture, lab-based learning	Lab Manual Page 1
3	Measurements and Chemical Observation	Lecture, lab-based learning	Lab Manual Page 8
4	Stoichiometry-I	Lecture, lab-based learning	Lab Manual Page 12
5	Stoichiometry-II	Lecture, lab-based learning	Lab Manual Page 17
6	Limiting Reactant	Lecture, lab-based learning	Lab Manual Page 24
7	Determination of an Unknown		
8	Volumetric Analysis (I): Acid-Base Titrations	Lecture, lab-based learning	Lab Manual Page 31
9	Volumetric Analysis (II): Redox Titrations	Lecture, lab-based learning	Lab Manual Page 39
10	Chemical Equilibrium	Lecture, lab-based learning	Lab Manual Page 45
11	Thermochemistry [Determination of ΔH_f for MgO]	Lecture, lab-based learning	Lab Manual Page 50
12	Spectrophotometric Determination of the Solubility of NiSO ₄ .6H ₂ O	Lecture, lab-based learning	Lab Manual Page 57
13	Determination of an Unknown		
14	Check-out		
15	-		
16	Final Exam		

* Learning styles: Lecture, flipped learning, learning through projects, learning through problem solving, participatory learning ... etc.

** Reference: Pages in a book, database, recorded lecture, content on the e-learning platform, video, website ... etc.

Schedule of asynchronous interactive activities (in the case of e-learning and blended learning)

Week	Task / activity	Reference	Expected results
-	-	-	-