

## Course Syllabus

1	<b>Course title</b>	Experimental Chemical Research
2	<b>Course number</b>	0303496
3	<b>Credit hours</b>	1
	<b>Contact hours (theory, practical)</b>	Theory, 1 hour; practical, 3 hours
4	<b>Prerequisites/corequisites</b>	Successfully completing 90 credit hours
5	<b>Program title</b>	Bachelors in chemistry
6	<b>Program code</b>	03
7	<b>Awarding institution</b>	The University of Jordan
8	<b>School</b>	Faculty of Science
9	<b>Department</b>	Chemistry
10	<b>Course level</b>	Third year
11	<b>Year of study and semester (s)</b>	
12	<b>Other department (s) involved in teaching the course</b>	NA
13	<b>Main teaching language</b>	English
14	<b>Delivery method</b>	<input checked="" type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input type="checkbox"/> Fully online
15	<b>Online platforms(s)</b>	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....
16	<b>Issuing/Revision Date</b>	02/01/2024

### 17 Course Coordinator:

Name: \_\_\_\_\_ Contact hours: \_\_\_\_\_

Office number: \_\_\_\_\_ Phone number: \_\_\_\_\_

Email: \_\_\_\_\_

**18 Other instructors:**

Name:

Office number:

Phone number:

Email:

Contact hours:

Name: NA

Office number:

Phone number:

Email:

Contact hours:

**19 Course Description:**

The student shall independently design, carry out and report a project within the subject of chemistry.

**20 Course aims and outcomes:**



#### A- Aims:

This course is designed to offer students hands-on experience in conducting chemistry research. It covers essential aspects such as chemical handling, experimental procedures, compound identification, data interpretation, drawing conclusions, and writing a comprehensive thesis based on the research findings.

#### B- Students Learning Outcomes (SLOs):

SLO-1. Problem Solving: Graduates will be able to apply mathematical and scientific knowledge to identify, formulate, and solve technical or scientific problems relevant to the discipline of chemistry.

SLO-2. Design: Graduate will be able to use their understanding of chemistry concepts and principles to formulate and design systems, processes, procedures, or programs to meet desired goals and outcomes.

SLO-3. Experimental Skills: Graduates will be able to design, conduct, and analyze experiments or test hypothesis, utilizing appropriate chemical techniques and scientific judgments to draw meaningful conclusions.

SLO-4. Communications: Graduates will be able to communicate scientific information effectively and accurately to a range of audiences, including both technical and non-technical audiences.

SLO-5. Ethics and Global Context: Graduates will understand and apply ethical and professional responsibilities in the context of the impact of technical and scientific solutions on global, economic, environmental, and societal issues.

SLO-6. Teamwork: Graduates will be able to work effectively as a part of a team, establishing goals, planning tasks, meeting deadlines, and analyzing risk and uncertainty in the context of chemistry-related projects and initiatives.

SLO-7. Handling Chemicals: An ability to apply the proper procedures for safe handling of chemicals.

Upon successful completion of this course, students will be able to:

CLO-1 Use techniques, skills, and modern scientific tools necessary for professional practice.

CLO-2 Apply knowledge of chemistry and applied science to real-life problems.

CLO-3 Communicate effectively through written reports and oral presentations.

CLO-4 Understand professional and ethical responsibilities and be ready to engage in lifelong learning.

CLO-5 Developed research and independent work abilities, as well as teamwork skills.

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**Student Outcomes (SO)**

	SO-1	SO-2	SO-3	SO-4	SO-5	SO-6	SO-7
CLO-1		✓	✓				✓
<b>Course Learning Outcomes (CLO)</b>	✓						
CLO-2							
CLO-3				✓			
CLO-4					✓		
CLO-5						✓	

## 21. Topic Outline and Schedule:

Week	Lecture	Topic	Student Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1	1.1							

2	2.1							
3	3.1							
4	4.1							
5	5.1							
6	6.1							
7	7.1							
8	8.1							
9	9.1							
10	10.1							
11	11.1							
12	12.1							

## 22 Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform
Report	40				
Presentation	30				
Project Jury Assessment	30				

## 23 Course Requirements



**(e.g: students should have a computer, internet connection, webcam, account on a specific software/platform...etc):**

Successfully completing 90 credit hours

#### 24 Course Policies:

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#### 25 References:

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#### 26 Additional information:

NA
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Name of Course Coordinator: Prof. Dr. Deeb Taher-----Signature: ----- Date: -----
Head of Curriculum Committee/Department: Deeb Taher----- Signature: -----
Head of Department: --Dr Firas Awwadi----- Signature: -----
Head of Curriculum Committee/Faculty: ----- Signature: -----
Dean: ----- Signature: -----