

## Course Description Form

<b>1. Course Name:</b>					
Organic Chemistry I (Theoretical+ Practical)					
<b>2. Course Code:</b>					
Phpch25 1211					
<b>3. Semester / Year:</b>					
First Year / Second Semester					
<b>4. Description Preparation Date:</b>					
15/1/2025					
<b>5. Available Attendance Forms:</b>					
Students' signature on attendance sheet					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
3 hours Theoretical + 2 hours Practical /3 units					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
<b>Theoretical:</b>					
Lecturer Dr. Eman Mahmood Hasan, Email: <a href="mailto:emanmahmood87@uomosul.edu.iq">emanmahmood87@uomosul.edu.iq</a>					
Lecturer Dr. Banan Borhan Saeed, Email: <a href="mailto:bananal dewachi@uomosul.edu.iq">bananal dewachi@uomosul.edu.iq</a>					
Lecturer Dr. Nagham M. Zaki Dawood, Email: <a href="mailto:n3_m3_zmz@uomosul.edu.iq">n3_m3_zmz@uomosul.edu.iq</a>					
<b>Practical</b>					
Asst. Lecturer Istabrak Mohammed Abdullah, Email: <a href="mailto:istabrick.mohammed@uomosul.edu.iq">istabrick.mohammed@uomosul.edu.iq</a>					
Asst. Lecturer Amal Fakhruddin Hamed, Email: <a href="mailto:amal-aldulaimi@uomosul.edu.iq">amal-aldulaimi@uomosul.edu.iq</a>					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>		Recognizing organic compounds, their preparation methods, basic properties, chemical reactions, and nomenclature methods.			
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>		Lecturing, Homework, Quiz, Practical laboratory			
<b>10. Course Structure</b>					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3 theoretical	A1- The student explains the basic concepts of alkanes in terms of type of bonding, stereochemistry, isomers, and their uses..	Introduction to Alkanes	Theoretical lectures.	Paper-based exams
	2 practical	B1- The student applies the concepts of basic methods for measuring of melting points.  C1- The student adheres to the principles of safety and professional conduct, handling chemicals correctly in the laboratory.	Determination of Melting points.	practical laboratory experiments	Practical exam report

2	3 theoretical	<p>1- The student explains how to name alkanes as well as their preparation methods, reactions and the types of these reactions</p> <p>C2- The student benefits from information given in the lecture name any alkene compound and predicts the product of any reaction given in the daily exam</p>	Nomenclature, preparations, and reactions of alkanes	Theoretical lectures.	Paper-based exams
	2 practical	<p>A2- The student will learn the basic concepts in methods of measuring boiling point.</p> <p>B2- The student will apply chemical safety procedures and professional conduct within the laboratory and handle chemicals correctly.</p>	Determination of boiling points.	practical laboratory experiments	Practical exam report
3	3 theoretical	<p>A2- The student recognizes the nature of these compounds in terms of bonding type, stereochemistry, and characteristics, comparing their activity with open-chain alkanes</p> <p>C2- Explains to the student how to name cycloalkanes, their preparation methods, reactions and comparing these reaction types with those of open-chain alkanes.</p>	Introduction, nomenclature, preparations, and reactions of cycloalkanes.	Theoretical lectures.	Paper-based exams
	2 practical	A2- The student distinguishes between different materials by measuring their melting and boiling points.	Unknown of melting and boiling points.	practical laboratory experiments	Practical exam
4	3 theoretical	A1- The student explains the basic concepts of alkenes in terms of bonding type, stereochemistry, isomers, and properties	Introduction to Alkenes	Theoretical lectures.	Paper-based exams Class participation
	2 practical	<p>A2- The student distinguishes between the different types of methods for separating materials.</p> <p>B2- The student analyzes how filtration is used to isolate and separate materials.</p>	Solution and Filtration.	practical laboratory experiments	Practical exam report
5	3 theoretical	C2- The student explains how	Alkenes, nomenclature	Theoretical	Paper-based

		name alkenes and their various preparation methods and reactions.	preparations, and reactions.	lectures.	exams
	2 practical	B1- The student applies the sublimation method in the separation of materials.  C2- The student estimates the quantity produced in the experiment and calculates the percentage of yield.	Sublimation	practical laboratory experiments	Practical exam report
6	3 theoretical	A1- The student explains the basic concepts of dienes in terms of classification, nomenclature, preparation methods, and reactions.	Dienes, classification, nomenclature, preparations, and reactions	Theoretical lectures.	Paper-based exams
	2 practical	The student distinguishes between the different types of methods for separating materials, such as filtration and sublimation.	Unknown of filtration and Sublimation	practical laboratory experiments	Practical exam
7	3 theoretical	A1- The student explains the basic concepts of alcohols in terms of classification, nomenclature, preparation methods, and reactions.	Alcohols, classification, nomenclature	Theoretical lectures.	Paper-based exams
	2 practical	B1- The student distinguishes between the different types of methods for purifying material  C2- The student applies how to use the recrystallization method to separate, purify, and reduce materials.	Recrystallization	practical laboratory experiments	Practical exam report
8	Midterm exam				
9	3 theoretical	A1- The student explains the basic concepts of alcohols in terms of their preparation methods and reactions.	Alcohols, preparations, and reactions	Theoretical lectures.	Paper-based exams
	2 practical	A1- The student estimates the quantity of pure substance by recrystallization	Unknown of Recrystallization	practical laboratory experiments	Practical exam
10	3 theoretical	A1- The student explains the basic concepts of alkynes in terms of	Introduction to Alkynes	Theoretical lectures.	Paper-based exams

		stereochemistry, type of bonds benefits of these compounds, a their applications in preparing anti-cancer drugs.			
	2 practical	B1- The student will learn the basic concepts of distillation in purification of materials.	Distillation	practical laboratory experiments	Practical exam report
11	3 theoretical	C2- The student benefits from above information to study the reactions of alkynes in the next lecture.	Nomenclature, preparations, and reactions of alkynes	Theoretical lectures.	Paper-based exams
	2 practical	B1- The student learns about the different types of distillation, including simple distillation.  C2- The student applies the basic concepts of simple distillation through a practical experiment	Distillation	practical laboratory experiments	Practical exam report
12	3 theoretical	A1- The student explains the b concepts of ethers in terms of classification, nomenclature, preparation methods, and reactions.	Ethers, classification nomenclature, preparations, reactions.	Theoretical lectures.	Paper-based exams
	2 practical	B1- The student estimates the quantity of the pure substance simple distillation.	Unknown of Distillation	practical laboratory experiments	Practical exam
13	3 theoretical	A2- The student distinguishes between different types of phen in terms of structure, chemical physical properties, preparation methods, and reactions.  B2- The student explains how name phenol and how to distinguish them from other ty of halide compounds.	Introduction phenol	Theoretical lectures.	Paper-based exams
	2 practical	Q3- The student reviews all the material covered in previous lectures	Review and exam for th who postponed their exams	practical laboratory experiments	Theory and practical exam
14	3 theoretical	A2- The student understands	Stereochemistry	Interactive	Paper-bas

		stereochemistry, its types, names, methods for each type, and how to differentiate between them.  B2- The student benefits from the above information and studies the pharmacological impact of stereochemistry on the human body.		lectures (and enrichment via the online classroom)	exams
	2 practical		Comprehensive exam	A comprehensive exam covering all practical experiments.	Theoretical exam practical exam
15	3 theoretical	B3- Enhancing self-learning.	Student seminar	Interactive lectures (and enrichment via the online classroom)	Theory exam
11. Assessment					
20 marks theoretical 20 marks practical 60 marks final exam Total: 100					
12.. Educational Resources					
Required textbooks (curricular books, if any)			1. Morrison RT, Boyd RN. Organic Chemistry. 6th edition, 2008		
Main references (sources)			1. Textbook of organic chemistry for pharmacy students KS Mukherjee		
Recommended books and references (scientific journals, reports...)			<a href="https://www.abe.pl/en/book/9781642873740/text-book-of-organic-chemistry-for-pharmacy-students">https://www.abe.pl/en/book/9781642873740/text-book-of-organic-chemistry-for-pharmacy-students</a>		
Electronic References, Websites			%5		

