



Ministry of Higher Education and
Scientific Research - Iraq
University of Tikrit
College of Petroleum Process Engineering
Department of Petroleum and Gas Refining
Engineering



MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Organic chemistry	Module Delivery	
Module Type	Basic	<input checked="" type="checkbox"/> Theory	
Module Code	PGR122	<input type="checkbox"/> Lecture	
ECTS Credits	5	<input checked="" type="checkbox"/> Lab	
SWL (hr/sem)	125	<input type="checkbox"/> Tutorial	
Module Level	UGI	Semester of Delivery	2
Administering Department	PGR	College	PPE
Module Leader	-	e-mail	-
Module Leader's Acad. Title		Module Leader's Qualification	
Module Tutor	-	e-mail	-
Peer Reviewer Name	-	e-mail	-
Review Committee Approval		Version Number	1.0

Relation With Other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	Semester	-
Co-requisites module	None	Semester	-

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims أهداف المادة الدراسية	This course provides the students with the basic concept of organic chemistry, hybridization, purification, empirical and molecular formula of organic compounds. It also offers classification, structure, nomenclature, physical and chemical properties, and uses of organic compounds including alkanes, alkenes, alkynes, alcohols, aromatic, ethers, aldehydes and ketones, carboxylic acids and derivatives, esters and amines.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none">1. Ability to nomenclature, classification and draw the molecular formula and structures of the organic compounds.2. Ability to deal with physical and chemical properties of organic compounds.3. Understand the relation between geometry and charge distribution to chemical and physical properties.4. Ability to make the chemical equation of any organic reactions.5. Understand the mechanism of organic reaction.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: <ol style="list-style-type: none">1. Introduction to organic chemistry (basic concepts), hybridization [2 hrs].2. Purification, empirical and molecular formula of organic compounds [2 hrs].3. Classification and nomenclature of organic compounds [2 hrs].4. Hydrocarbons (alkanes, alkenes, and alkynes): structure, nomenclature, physical and chemical properties, and uses [6 hrs].5. Alcohols: structure, nomenclature, physical and chemical properties, and uses [2 hrs].6. Ethers, aldehydes and ketones: structure, nomenclature, physical and chemical properties, and uses [2 hrs].7. Carboxylic acid and carboxylic acid derivatives: structure, nomenclature, physical and chemical properties, and uses [4 hrs].8. Esters and amines: structure, nomenclature, physical and chemical properties, and uses [2 hrs].9. Aromatic compounds (aromatic hydrocarbon, aromatic halogen, aromatic amine, aromatic carboxylic acids): structure, nomenclature, physical and chemical properties, and uses [6 hrs]

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	<p>The students will be actively engaged in the tasks, which will help them develop and hone their critical thinking abilities. This will be accomplished via lectures, interactive labs, and assignments incorporating fascinating tasks. The course includes:</p> <ol style="list-style-type: none"> 1- Numerous examples worked out in detail to illustrate the basic principles. 2- A consistent strategy for problem solving that can be applied to any problem. 3- Figures, sketches, and diagrams to provide a detailed description and reinforcement of what you read. 4- Self-Assessment Tests at the end of each section, with answers so that you can evaluate your progress in learning. 5- Many problems will be discussed and solved in the lecture classes, which offer working with one or more classmates to exchange ideas and discuss the material.
-------------------	---

Student Workload (SWL)

الحمل الدراسي للطالب

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	59	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعياً	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	66	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً	4.7
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	20% (20)	5, 14	LO #1-5
	Assignments	2	10% (10)	3, 10	LO 4 and 5
	Seminar	-	-	-	
	Report	14	10% (10)	Continuous	
Summative assessment	Midterm Exam	3 hr	10% (10)	7	LO #1-5
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction to organic chemistry (basic concepts), hybridization
Week 2	Purification, empirical and molecular formula of organic compounds
Week 3	Classification and nomenclature of organic compounds
Week 4	Hydrocarbons (alkanes, alkenes, and alkynes)
Week 5	
Week 6	
Week 7	Alcohols
Week 8	Ethers, aldehydes and ketones
Week 9	Carboxylic acid and carboxylic acid derivatives
Week 10	
Week 11	Esters and amines
Week 12	Aromatic compounds
Week 13	
Week 14	
Week 15	Preparatory Week
Week 16	Final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Organic Chemistry, K. S. Mukherjee, 1 st ed., 2010.	No
Recommended Texts	Organic Chemistry, Solomons, Fryhle and Snyder, 3 rd ed., 2023.	No
Websites	-	

APPENDIX:

GRADING SCHEME مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	مقبول بقرار	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note:				
NB Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				