

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Organic chemistry		Module Delivery
Module Type	C		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code			
ECTS Credits	7		
SWL (hr/sem)	210		
Module Level	1	Semester of Delivery	
Administering Department	Fuel and Energy Technologies Engineering	College	Shatt Al-Arab University College
Module Leader	Murtada Firas Hassan	e-mail	Murtada.Firass@sa-uc.edu.iq
Module Leader's Acad. Title	Assistance Lecturer	Module Leader's Qualification	MSc. Chemistry
Module Tutor		e-mail	
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date		Version Number	

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	1. Understand the basics of organic chemistry, which includes classifications, functions, reactions, equations, chemical calculations, isomers, derivatives, shapes and structures of each type. 2. To explain the difference between alkane ,alkene and alkyne . 3. To know the main organic materials used in the fields of chemical industries. 4. 4-Clarification and explanation of the concept of hydrocarbons and their uses in the fields of industry 5. Understand the meaning of carboxylic acids and methods of preparation
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	The student able to: 1. Understanding of the fundamentals of organic compounds. 2. Recognize the features of the Practical organic chemistry physical properties of liquid and solid organic compounds. 3. List the application of organic compounds. 4. Understanding of Hydrocarbon: alkanes, formulation-Hydrocarbons-saturated. 5. Summarize what is mean of Alcohols. 6- Discuss the various properties between Aldehydes and ketones. 7- understanding of Cyclic compounds structure . 8- To know the Amides reaction . 9- To know the Amines, derivatives of amine, diazonium salts. 10- To know the Ethers structure,classification and reaction
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. 1. Introduction to organic compounds 2. Aromatic compounds and types of it. 3. Classification of Hydrocarbon compounds 4. Reactions of Alkane ,alkene and alkyne 5. Methods of preparation of amides 6. Introduction to Amines, derivatives of amine, diazonium salts. 7. Classification Alcohols. 8. Reactions of Ethers 9. Methods of preparation of Cyclic compounds 10. Preparation Alkene.

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	Assessment is based on hand-in assignments, written exam, Quizzes, reports, seminars, Practical testing and Online testing.
-------------------	---

Student Workload (SWL)

الحمل الدراسي للطلاب

Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	116	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعياً	8
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	94	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعياً	
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال الفصل	210		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	4	10% (10)	3,6,9,12	
	Assignments	2	10% (10)	7,13	
	Seminar	1	10% (10)	Continuous	
	Report/ Lab.	6	10% (10)	2,3,4,5,6,7	
Summative assessment	Midterm Exam	2hr	10% (10)	7	
	Final Exam	3hr	50% (50)	16	

Total assessment	100% (100 Marks)		
------------------	------------------	--	--

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Organic chemistry, bonds, dipolar couple type of hybridization, orbitals.,
Week 2	Practical organic chemistry physical properties of liquid and solid organic compounds.
Week 3	Hydrocarbon: alkanes, formulation-Hydrocarbons-saturated.
Week 4	Alkene
Week 5	Alkyne
Week 6	Cyclic compounds.
Week 7	Aromatic hydrocarbon
Week 8	Alcohol
Week 9	Phenols.
Week 10	Aldehydes and ketones
Week 11	Ethers
Week 12	Esters.
Week 13	Amines, derivatives of amine, diazonium salts.
Week 14	Amides.
Week 15	Carboxylic acids.
Week 16	Final exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Safety in laboratory, laboratory tool , How to write a scientific report
Week 2	Measurement of the density by pycnometer and hydrometer
Week 3	Extraction of heavy oils from water
Week 4	Distillation an organic compound)alcohol(from water
Week 5	Measure the melting point of an organic compounds
Week 6	Recrystallization.
Week 7	TITRATION

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Organic Chemistry Paperback – January 1, 2010 by SAIBAL KANTI BHATTACHARJEE ROBERT THORNTON MORRISON , ROBERT NEILSON BOYD (Author)	yes
Recommended Texts	PRINCIPLES OF GENERAL, ORGANIC, & BIOLOGICAL CHEMISTRY , Published by McGraw-Hill, a business unit of The McGraw-Hill Companies, Inc., 1221 Avenue of the Americas, New York, NY 10020. Copyright © 2012 by The McGraw-Hill Companies, Inc	no
Websites	https://chem.libretexts.org/Bookshelves/Organic_Chemistry/Book%3A_Organic_Chemistry_Nomenclature_Workbook_(O'Donnell)	

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	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required