معلومات المقرر * (Course Information):

اسم المقرر:	كيمياء عضوية- ٢
رقم المقرر:	CHM ٢٢٢
اسم ورقم المتطلب السابق:	كيمياء عضوية - ١ ، CHM 121
اسم ورقم المتطلب المرافق:	لا يوجد
مستوى المقرر:	الثالث
الساعات المعتمدة:	٤ ساعات معتمدة

Module Title:	Organic Chemistry -2
Module ID:	CHM 222
Prerequisite (Co-requisite) :	Organic Chemistry -1 , CHM121
Co-requisite :	None
Course Level:	Third level
Credit Hours:	4 Hours

Module Description **وصف المقرر :**

This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Units covered include an in-depth study of the nomenclature, physical and chemical properties, major classes of reactions, synthesis of organic halides, alcohols and phenols, ethers and epoxides; aldehydes and ketones, amines, carboxylic acids and its derivatives.

The course provide a basic knowledge of the concepts of organic chemistry with an emphasis on the reactivity patterns of various functional groups. Students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields.

Students will learn basic laboratory techniques for detect and identify organic compounds and determination of unknown compounds

Students will participate in weekly labs in which they will safely perform a variety of experiments. Lab results will be recorded in students' lab notebooks, and formal lab reports will be completed.

جامعة المجمعة Majmaah University قسم الكيمياء Department of Chemistry College of Science in Zulfi

Module Aims أهداف المقرر :

1	Recognize and name organic compounds including functional groups such as organic halides, -alcohols, phenols, aldehydes, ketones, carboxylic acids, amines.	١
2	Demonstrate basic understanding of structure of organic molecules	٢
3	Explain fundamental concepts of the reactivity and synthesis of organic molecules	٣
4	Appreciate how organic chemistry plays an important role in everyday life.	٤
5	Research and present information on selected topics from the course using various modes of communication (oral, written, and visual).	٥
6-	Perform collaborative laboratory explorations to reinforce understanding of chemical concepts,	

Learning Outcomes: مخرجات التعليم:

Upon successful completion of this course, the student will be able to :		
1	Recognize different functional groups: organic halides, alcohols and phenols, ethers and epoxides; aldehydes and ketones, amines, carboxylic acids and its derivatives.	١
2	Apply the basic rules of organic nomenclature to combine between structures and names.	٢
3	Explain structure, reactivity and synthesis of the important classes of organic compounds	٣
4	Draw and distinguish structures and formulas to different functional groups.	٤
5	Analyze the influence of structure and physical properties of organic molecules	٥
6	Predict the physical properties of organic chemicals based on their structures	
7	Predict products for a defined set of organic reactions.	
8	Demonstrate proficiency in organic chemical laboratory techniques. (Chemical tests, extraction, filtration, instrumental analysis, molecular model building.	

جامعة المجمعة Majmaah University قسم الكيمياء Department of Chemistry College of Science in Zulfi

Course محتوى المقرر

Contents:

ساعات التدريس (Hours)	عدد الأسابيع (Weeks)	قائمة الموضوعات (Subjects)
٦	2	**Unit 1 :** Organic halides nomenclature, structural characteristics classification , physical and chemical properties, synthesis and reactions.

٦	2	**Unit 2 :** Alcohols, nomenclature, structural characteristics classification, physical and chemical properties; synthesis and reactions.
٦	2	**Unit 3 :** Phenols, nomenclature, structural characteristics classification, physical and chemical properties; synthesis and reactions.
٣	1	**Unit 4 :** Ether , epoxides, nomenclature, structural characteristics classification, physical and chemical properties; synthesis and reactions.
٩	3	**Unit 5 :** Aldehydes and ketones , nomenclature, structural characteristics, physical and chemical properties; synthesis and reactions.
٦	2	**Unit 6 :** Amiens, nomenclature, structural characteristics classification, physical and chemical properties, synthesis and reactions.
٩	٣	**Unit 7 :** Carboxylic acids and derivatives of Carboxylic acid nomenclature, structural characteristics, physical and chemical properties; synthesis and reactions.
٤٥	١٥	Total
		Practical part : Experiments include qualitative analysis of organic compounds, detection of functional groups, and identification of organic compounds in a given mixture by separation of organic compounds from a mixture by solvent extraction method. Identify selected organic unknowns through physical properties, chemical tests, and derivative preparation. Separation and identification of organic compounds Handle organic chemicals safely and describe their potential dangers.
٢٦	١٣	Total

Textbook and References: الكتاب المقرر والمراجع المساندة:

ISBN	سنة النشر Publishing Year	اسم الناشر Publisher	اسم المؤلف (رئيسي) Author's Name	اسم الكتاب المقرر Textbook title
٩٧٨٨١٣١٧٠٤٨١٣	7th edition /2011	Pearson	Robert Thornton Morrison	Organic Chemistry
	سنة النشر Publishing Year	**اسم الناشر Publisher**	**اسم المؤلف (رئيسي) Author's Name**	**اسم المرجع Reference**
ISBN 13: 9788177585421	Sixth Edition) 2010	Published by Pearson Education	Finar, I L	Organic Chemistry: Volume 1

* يتم تعبئة معلومات المقرر فقط باللغتين العربية والانجليزية وباقي المعلومات بلغة التدريس المعتمدة ويكرر لكل مقرر في الخطة الدراسية

* **Course Information should be filled in Arabic and English. Other information should be filled using the approved teaching language at the college.**

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جامعة المجمعة
Majmaah University
قسم الكيمياء
Department of Chemistry
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Module Aims أهداف المقرر :

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جامعة المجمعة Majmaah University قسم الكيمياء Department of Chemistry College of Science

Course Syllabus مخطوى المقرر

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٩٧٨٨١٣١٧٠٤٨١٣	7th edition /2011	Pearson	Robert Thornton Morrison	Organic Chemistry
	سنة النشر Publishing Year	**اسم الناشر Publisher**	**اسم المؤلف (رئيسي) Author's Name**	**اسم المرجع Reference**
ISBN 13: 9788177585421	Sixth Edition) 2010	Published by Pearson Education	Finar, I L	Organic Chemistry: Volume 1

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