

معلومات المقرر * (Course Information):

اسم المقرر:	كيمياء عضوية-1
رقم المقرر:	CHM121
اسم ورقم المتطلب السابق:	CHM-101
اسم ورقم المتطلب المرافق:	-
مستوى المقرر:	الثاني
الساعات المعتمدة:	4
Module Title:	Organic Chemistry-1
Module ID:	CHM121
Prerequisite (Co-requisite) :	1- كيمياء عامة, CHEM-101
Co-requisite :	-
Course Level:	second Level
Credit Hours:	4

Module Description

وصف المقرر :

First :Theoretical

General introduction include the following: atomic orbitals and bonding, - Hybridization (sp^3 , sp^2 , sp), polarity in organic compounds - Initial, molecular and structural formulas, Lewis acids and bases- organic reagents and reactions -functional groups. Alkanes (open and cyclic): Nomenclature, Physical properties, preparation methods and reactions.

Alkenes and alkynes: Nomenclature, Physical properties, preparation methods and reactions.

Conjugated Dienes : (Allyl radical and stability, electron delocalization, Resonance and the Stability of conjugated dienes, 1,4-Addition reactions of diene).

Aromatic compounds and Benzene : Nomenclature, Physical properties, preparation methods and reactions

Second :Laboratory

Apparatus used in organic laboratory ,Melting and boiling points measurement, Distillation, Recrystallization, Solvent extraction, Differentiates between aliphatic and aromatic compounds and between saturated and unsaturated compounds - Lassine test





Module Aims

أهداف المقرر :

1	Study the basic principles of organic chemistry	1
2	Demonstrate nomenclature for organic compounds using IUPAC rules	2
3	Recognize the preparation methods, reactions of organic compounds under study	3
4	Study physical properties of organic compounds under study	4
5	develop competence and ability in practical, mathematical and problem-solving skills	5

Learning Outcomes:

مخرجات التعليم:

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

1	Recognize types of hybridization in the carbon atom - types of chemical bonds in organic compounds-and polarization in organic molecules	1
2	Give correct IUPAC names for compounds having the functional groups studied.	2
3	Listed physical properties of organic compounds under study	3
4	Describe alkanes , alkenes , alkynes and aromatic compounds in terms of structure	4
5	Predict products from reactions of alkanes, alkenes, alkynes and aromatic hydrocarbons	5
6	Use the chemicals and apparatus of the laboratory accurately	

محتوى المقرر: Course

Contents:

ساعات التدريس (Hours)	عدد الأسابيع (Weeks)	قائمة الموضوعات (Subjects)
9	3	First :Theoretical General introduction include the following: atomic orbitals and bonding, - Hybridization (sp ³ , sp ² , sp), polarity in organic compound - Initial, molecular and structural formulas, Lewis acids and bases, organic reagents and reactions -functional groups





12	4	Alkanes(open and Cyclic):Nomenclature, Physical properties, preparation methods and reactions
9	3	Alkenes and alkynes: Nomenclature, Physical properties, preparation methods and reactions.
3	1	Conjugated Dienes : (Allyl radical and stability, Allyl cation, 1,3-Butadiene - electron delocalization, Resonance and the Stability of conjugated dienes, 1,4-Addition and 1,4-Cycloaddition reactions of diene).
12	4	Aromatic compounds and Benzene : Nomenclature, Physical properties, preparation methods and reactions
2	1	Second :Laboratory Apparatus used in organic laboratory
4	2	Melting and boiling points measurement
6	3	Distillation, Recrystallization, Solvent extraction
4	2	Synthesis of aspirin and acetanilide.
10	5	Differentiates between aliphatic and aromatic compounds and between saturated and unsaturated compounds - Lassine test

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
9788131704813	7th edition /2011	Pearson	Robert Thornton Morrison	Organic Chemistry
ISBN	سنة النشر Publishing Year	اسم الناشر Publisher	اسم المؤلف (رئيسي) Author's Name	اسم المرجع Reference
13: 9788177585421	Sixth Edition) 2010	Published by Pearson Education 0	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.



