

نموذج توصيف مقرر
Course Description Form

Name of College\Faculty : Science

Name of Department: Chemistry

اسم الكلية:

اسم القسم العلمي:

Course Name	Organic Chemistry for Engineering Students	اسم المقرر
Course No.	CHEM 269	رقم المقرر
No. of Credits	4	عدد الوحدات
Theoretical Hours	3	عدد الساعات النظرية
Practical Hours	3	عدد الساعات المحلّية
Course topics		مواضيع المقرر
The basis for structure and nomenclature; bonding in organic compounds, alkanes, alkenes, and alkynes. An introduction to organic reactions. Structure, nomenclature, and reactions of alkenes and alkynes. Aromatic compounds: structure, nomenclature, and reactions. Alcohols, phenols, ethers, and amines: structure, nomenclature, and reactions. Aldehydes, ketones, and carboxylic acid derivatives: structure, nomenclature, and reactions. Lipids: structure, nomenclature, and reactions. Purification of organic compounds: simple and fractional distillation and crystallization. Separation of organic mixtures: solvent extraction and chromatography. Systematic identification of organic functional groups. Synthesis, isolation, and analysis of organic compounds related to industry.		
Text book: (Name, Author , Year , Publisher)		عنوان الكتاب : (الاسم ، المؤلف ، سنة الطبع ، دار النشر)
H. H. C. Hart, Organic Chemistry: A Brief Course, Latest Edition.		
References: (Name , Author , Year . Publisher)		عنوان المرجع : (الاسم ، المؤلف ، سنة الطبع ، دار النشر)
Bruice, P. Y., Organic Chemistry, Prentice-Hall, Latest Edition.		



Prerequisites CHEM 102 + CHEM 106			متطلبات المقرر		
Grading	Exams		%		الاختبارات
	Quizzes		%		امتحانات قصيرة
	H.W.		%		واجبات
	Project (field study)		%		مشاريع (دراسة ميدانية)
	Final		%		الاختبار النهائي
	%				آلية رصد المقرر

Chapters included:

Chapter	Topic	Sections Included
CH.1	Bonding & Isomerism	1-18
CH.2	Alkanes & Cycloalkanes. Conformational & Geometrical Isomerism	1-8, 10-13
CH.3	Alkenes & Alkynes	1-10, 14, 17-21
CH.4	Aromatic Compounds	1-12
CH.6	Organic Halogen Compounds. Substitution, Elimination Reactions	1-8
CH.7	Alcohols, Phenols & Thiols	1-14
CH.8	Ethers & Epoxides	1-6
CH.9	Aldehydes & Ketones	1-15, 17
CH.10	Carboxylic Acids & their Derivatives	1-11, 13-21
CH.11	Amines & Related Nitrogen Compounds	1-8, 10-13
CH.15	Lipids and Detergents	1-5, 8

Course objectives					
No.	Course Objectives (Learning Outcomes)	Example(s) of relevant (Topics and activities)	Recommended Level to satisfy the objectives		
			High	Medium	Low
1	To introduce the general concepts of organic chemistry such as bonding, structural formulas, and isomerism of organic molecules.			X	
2	To introduce IUPAC rules to nomenclature of hydrocarbons and their functional derivatives.			X	
3	To introduce the principles of structural isomerisms.		X		
4	To introduce the major types of organic reactions (substitution, elimination, and addition reactions).		X		
5	To understand the basic chemistry of lipids.			X	
6	To relate in general organic chemistry to industrial applications.			X	
7	To familiarize with different techniques used in organic laboratory.			X	
Fields					
Skills					
Coordinator (Name and Rank) :		Convener of the organic chemistry			
Signature and stamp :					
Date:		11\ 11 \2025			