

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 Non-Chemistry Major	اسم المقرر
Course No.	CHEM 114	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. Stereochemistry and organic halides. Alcohols, phenols, ethers, and amines: structure, nomenclature, and reactions. Aldehydes, ketones, and carboxylic acid derivatives: structure, nomenclature, and reactions. Carbohydrates: structure, nomenclature, and reactions. Purification of organic compounds by distillation and crystallization. Separation of organic mixtures by solvent extraction and chromatography. Systematic identification of organic functional groups. Synthesis, isolation, and analysis of organic compounds.		
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 110 + CHEM 111 or CHEM 102 + CHEM 106		متطلبات المقرر				
Grading	Exams		%		الاختبارات	آلية رصد المقرر
	Quizzes		%		امتحانات قصيرة	
	H.W.		%		واجبات	
	Project (field study)		%		مشاريع (دراسة ميدانية)	
	Final		%		الاختبار النهائي	
	%					

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.5	Stereoisomerism	1-10
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.16	Carbohydrates	1-6

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.				X
2	To introduce IUPAC rules to nomenclature of hydrocarbons and their functional derivatives.			X	
3	To introduce the principles of structural and stereoisomerisms.		X		
4	To introduce the major types of organic reactions (substitution, elimination, and addition reactions).			X	
5	To understand the basic chemistry of carbohydrates.			X	
6	To familiarize with different techniques used in synthetic organic laboratory.		X		
Fields					
Skills					
Coordinator (Name and Rank) :		Convener of the organic chemistry			
Signature and stamp :					
Date:		11\ 11 \2025			