

نموذج توصيف مقرر
Course Description Form

Name of College\Faculty : Science
Name of Department: Chemistry

اسم الكلية:
اسم القسم العلمي:

Course Name	General Chemistry	اسم المقرر
Course No.	0420-110	رقم المقرر
No. of Credits	3	عدد الوحدات
Theoretical Hours	3	عدد الساعات النظرية
Practical Hours	0	عدد الساعات المعملية
Course topics	1. Chemistry in Our Lives 2. Chemistry and Measurements 3. Matter and Energy 4. Atoms and Elements 5. Nuclear Chemistry 6. Ionic and Molecular Compounds 7. Chemical Quantities and Reactions 8. Gases 9. Solutions 10. Acids and Bases and Equilibrium	مواضيع المقرر

Text book: (Name, Author , Year , Publisher)

عنوان الكتاب : (الاسم ، المؤلف ، سنة الطبع ، دار النشر)

Chemistry an Introduction to General, Organic, and Biological Chemistry by Karen Timberlake, Pearson

References: (Name , Author , Year . Publisher)

عنوان المرجع : (الاسم ، المؤلف ، سنة الطبع ، دار النشر)

Prerequisites : 0420-256 (Organic Chemistry II),
0420-335 (Analytical Chemistry II)

متطلبات المقرر

Exams	50	%	الاختبارات
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Grading	Quizzes		%		امتحانات قصيرة	آلية رصد المقرر
	H.W.		%		واجبات	
	Tutorials	10	%		مشاريع (دراسة ميدانية)	
	Final	40	%		الاختبار النهائي	
	100%					

Chapters included:

Topic title	Chapter
Chemistry in Our Lives	1
Chemistry and Measurements	2
Matter and Energy	3
Atoms and Elements	4
Nuclear Chemistry	5
Ionic and Molecular Compounds	6
Chemical Quantities and Reactions	7
Gases	8
Solutions	9
Acids and Bases and Equilibrium	10

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 develop knowledge of different chromatographic techniques	1.1 discuss the importance of the chemical separation processes. 1.2 Classify the different methods of chemical separation. 1.3 Define and illustrate the concepts of chromatography and its advantages. 1.4 Describe the components and functions of the different parts of a chromatograph. 1.5 Illustrate the application of HPLC and gas chromatography in science and industry.	High High High High High		
2	To introduce supercritical fluid chromatography and its advantages.	2.1 explain the properties and advantages of super fluid chromatography (SFC). 2.2 interpret the results of SFC method and analyze the data.	High High		



3	To understand the principles of electrophoresis.	3.1 explain the various terms of electrophoresis. 3.2 Differentiate between the different types of electrophoresis. 3.3 analyze DNA by gel electrophoresis. 3.4 apply electrophoresis to chemical analysis of real samples.	High High High High		
4	To demonstrate the ability to design, improve and operate separation processes	Carry out experiments, in the laboratory, relevant to the various methods studied in the course.	High		
5					
Fields					
Skills					
Coordinator (Name and Rank) :		chemistry division			
Signature and stamp :					
Date:		30/10/2025			