

نموذج توصيف مقرر
Course Description Form

Name of College\Faculty : Science

Name of Department: Chemistry

اسم الكلية:

اسم القسم العلمي:

Course Name	GENERAL CHEMISTRY LAB 2	اسم المقرر
Course No.	CHEM 106	رقم المقرر
No. of Credits	1	عدد الوحدات
Theoretical Hours	0	عدد الساعات النظرية
Practical Hours	3	عدد الساعات العملية
Course topics	مواضيع المقرر	
1. Molar volume of oxygen 2. Acid-base titrations 3. Analysis of H_2O_2 4. Molecular weight determination from freezing point depression 5. Enthalpy of formation 6. pH-indicators (pH meters) 7. Hydrolysis and amphotericism 8. Chemical kinetics –clock reaction 9. Chemical equilibrium using a spectrometer 10. Determination of the solubility products		
Text book: (Name, Author , Year , Publisher)	عنوان الكتاب : (الاسم ، المؤلف ، سنة الطبع ، دار النشر)	
Experimental General Chemistry, by S.T. Marcus. McGraw-Hill, NY.		
References: (Name , Author , Year . Publisher)	عنوان المرجع : (الاسم ، المؤلف ، سنة الطبع ، دار النشر)	
None		

Prerequisites			متطلبات المقرر		
Corequisite: CHEM 110					
Grading	Exams		%		الاختبارات
	Quizzes		%		امتحانات قصيرة
	H.W.		%		واجبات
	Project (field study)		%		مشاريع (دراسة ميدانية)
	Final		%		الاختبار النهائي
	%				آلية رصد المقرر

Course objectives					
No.	Course Objectives (Learning Outcomes)	Example(s) of relevant (Topics and activities)	Recommended Level to satisfy the objectives		
			High	Medium	Low
1	Determine the molar volume of oxygen and calculate its value at STP.		X		
2	Calculate the concentration of acid and base by the process of titration.		X		
3	Study the rate of decomposition of H_2O_2 .		X		
4	Determine the molecular weight from freezing point depression.		X		
5	Determine the enthalpy of formation.		X		
6	Measure the pH of a solution using pH meter and pH indicator.		X		
7	Determine the extent of hydrolysis in various solutions, using indicators and a pH meter.			X	
8	Investigate amphoteric properties of several substances.			X	
9	Find the rate law for the chemical reaction.		X		

10	Learn how to use and apply spectrophotometry to chemical equilibrium .reactions			X	
11	Determine the solubility product of ionic compound.		X		
Fields					
Skills	• Deal with the safety rule. • Investigate the uses and of limits the various types of glassware, balance, and laboratory tools. • Implement the experimental procedures. • Record the experimental results and able to draw conclusions based on these results • Communicate the results critically and knowledgeably • Apply rules of significant figure in the reported result • Write a scientific report				
Coordinator (Name and Rank) :					
Signature and stamp :					
Date:	30\ 11 \2025				