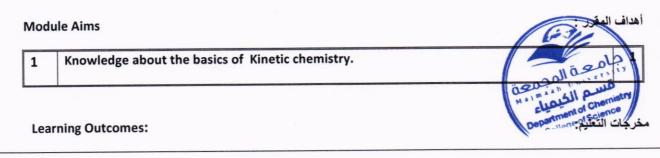
	:(Course	علومات المقرر * (Information ؛
	كيمياء حركية	سم المقرر:
	CHEM335	رقم المقرر:
	CHM232 كيمياء ديناميكا حرارية	سم ورقم المتطلب السابق:
	لا يوجد	سم ورقم المتطلب المرافق:
	المستوي السادس	ستوى المقرر:
	(2+2)3	لساعات المعتمدة:
Module Title:	Kinetic chemistry	
Module ID:	СНМ335	
Prerequisite (Co-requisite) :	CHM232, Chemistry of Thermodynamics	
Co-requisite :	None	
Course Level:	6 th level	
Credit Hours:	(2+2)3	

Module Description

وصف المقرر:

Topic discussed in these course include: Some basic concepts of kinetic chemistry - Rate laws and effected factors. order of reaction, Rate laws for chemical reactions from zero, first, second, third, general, n, and examples of reactions of each rank, laws of speed for complex reactions, reverse reactions, parallel reactions, Sequence reactions - Effect of temperature on reaction velocity - Arrhenius equation - Effect of the catalyst on activation energy - Interaction theories.

Experimental part is designed to complement the lecture material. Emphasis is placed on experimental methodology and data acquisition by assisting computer.



صفحة 1 من 3







2	Describe the general concepts of different types of chemical reactions kinetic	
3	describe the effect of temperature on the rate of reaction	
4	Determine the order of Chemical Reaction	
5	Outline of the general procedure of laboratory experiments.	
6	Apply the appropriate mathematical formula to solve problems relating to course concept	
7	Explain the results of electrochemical from Laboratory experiments.	
8	Work independently and as part of a team	
9	Demonstrate the ability to use the library resources and scientific data base to obtain information about topic, chemical, chemical technique or an issue relating to chemistry.	
10	Demonstrate a good and safe handling of laboratory chemicals, glassware and equipment during experiments.	

Course Contents:

محتوى المقرر:

ساعات التدريس	عدد الأسابيع	قائمة الموضوعات		
(Hours)	(Weeks)	(Subjects)		
2	1	Definitions of kinetic Chemistry (Kinetics of particles)		
2	1	The rate of reaction and effected factor		
2	1	The order of a chemical reaction and the molecularity of reaction		
6	3	Integrated law of rate of reaction(Zero order, first order, second order, third order, general n order), half life		
4	2	Determination of the order of reaction from integrate method, isolation method, fractional life time method.		
4	2	Complex interactions(chain reaction , reverse reactions, parallel reactions, Sequence reactions)		
2	1	Effect of temperature (Arrhenius equation)		
2	1	Activation energy (Effect of the catalyst)		
4	2	Theories that explain the occurrence of chemical reactions		
2	1	Revision Practical Measure the speed of chemical reaction (first order screen and a chemical reaction)		
		Practical		
6	3	Measure the speed of chemical reaction (first order, second order) chemist		

صفحة 2 من 3





6	3	effect of concentration on the speed of reaction , determined the order of reaction
6	3	Effect of temperature on the speed of reaction, Measuring activation energy
2	1	Revision

Textbook and References:

الكتاب المقرر والمراجع المساندة:

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ISBN	سنة النشر Publishing Year	اسم الثاشر Publisher	اسم المؤلف (رنيسي) Author's Name	اسم الكتاب المقرر Textbook title
ISBN- 10: 1119226643 ISBN-13: 978- 1119226642	2017	Wiley	Jorge Ancheyta	Chemical Reaction Kinetics: Concepts, Methods and Case Studies 1 st Ed.
	سنة النشر Publishing Year	اسم الثاشر Publisher	اسم المؤلف (رنیسی) Author's Name	اسم المرجع Reference
ISBN- 10: 0471621315 ISBN-13: 978- 0471621317	1990	Wiley	James E. Brady	General Chemistry: Principles and Structure 5 th ed.
ISBN-13: 978- 0198769866 ISBN-10: 0198769865	2018	Oxford University Press	Peter Atkins and etc.	Physical Chemistry 11 th ed.

* يتم تعبنة 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.



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