جامعة المجمعة
Majmaah University

Course Specifications

Institution:	**Majmaah University.**
Academic Department :	**Department of chemistry**
Programme :	**Bachelor degree of chemistry**
Course :	**Kinetic Chemistry**
Course Coordinator :	**Ebthag ELhassan**
Programme Coordinator :	**Dr.Gehan Alaemary**
Course Specification Approved Date :	**20/12 / 1435 H**

A. Course Identification and General Information

1 - Course title : **Kinetic Chemistry** Course Code: **Chem 412**			
2. Credit hours : **3(Two Hours Theoretical + Three Hours Workable)**			
3 - Program(s) in which the course is offered: **Chemistry**			
4 – Course Language : **Arabic**			
5 - Name of faculty member responsible for the course: **Ebthag ELhassan**			
6 - Level/year at which this course is offered : **seven Level**			
7 - Pre-requisites for this course (if any) : • **Chemistry thermodynamics**			
8 - Co-requisites for this course (if any) : Practical course			
9 - Location if not on main campus **:(faculty of education Zulfi**)			
10 - Mode of Instruction (mark all that apply)			
A - Traditional classroom☐	√☐	What percentage? ☐	**80 %**☐
B - Blended (traditional and online)☐	☐	What percentage? ☐	**0 %**☐
D - e-learning☐	☐	What percentage? ☐	**0 %**☐
E – Correspondence☐	☐	What percentage? ☐	**0 %**☐
F - Other	√☐	What percentage? ☐	**20 %**☐
Comments : .....☐			

B Objectives

What is the main purpose for this course? **Study the Rate and Classification Of Chemical Reaction** **Determination Of Rate Of Chemical Reaction**☐
Briefly describe any plans for developing and improving the course that are being implemented : **The use of interactive whiteboard teaching instead of the chalkboard.** **use of the Web in modern additions to the course** .☐

C. Course Description

1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
Definitions for kinetic Chemistry	1	4
The rate of raction	1	2
Kinetics of particles	1	2
The order of a chemical reaction	1	2
Law of speed of reaction	2	4
Measuring the order of reaction	1	2
The applications of types of order of reaction	3	8
Complex interactions	2	4
Effect of temperature	1	2
Activation energy	1	2
Theories that explain the occurrence of chemical reactions	2	4
Practical		
Measure the speed of chemical reaction (first order, second order)	3	6
effect of concentration on the speed of reaction , determined the order of reaction	2	4
Effect of temperature on the speed of reaction, Measuring activation energy	2	4

2. Course components (total contact hours and credits per semester):

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	**30**	**---**	**30**	**---**	**---**	**60**
Credit	**30**	**---**	**15**	**---**	**---**	**45**

3. Additional private study/learning hours expected for students per week. | **2**

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4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	**Knowledge**		
1.1	Know the Rate and Classification Of Chemical Reaction	lecture discussion, mutual dialogue	Oral tests at the beginning of each lecture, Written tests, final examination
1.2	Determination Of Rate Of Chemical Reaction		
١.٣	Study Rate Of Chemical Reaction and The Factor which affected On It		
١.٤	Study Of Mechanism of Reversible and Irreversible Kinetic Reaction		
١.٥	Theories that explain the occurrence of chemical reactions		
١.٦			
2.0	**Cognitive Skills**		
2.1	Application of The Chemical Operation To Link between The Theoretical and Workable Material	problems, Laboratory study Open discussions	Continuous questions- duties - practical test
3.0	**Interpersonal Skills & Responsibility**		
3.1	Dealing with team spirit in experiments	Working in groups within the lab Collective seminars	Oral questions, Correct experimental results
3.2	Creating constructive competitive spirit		
٣.٣	Encourage communication between students		

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
		.	
4.0	Communication, Information Technology, Numerical		
4.1	Development of communication skills	Proplems research, study discussion	Oral and written exercises Follow-up practical books,
4.2	Development of numerical skills		
٤.٣	Use chemical Internet sites and doing some calculation		
5.0	Psychomotor		
5.1	Mastering laboratory experiments	Practical course	Follow-up practical books,

5. Schedule of Assessment Tasks for Students During the Semester:

	Assessment task	Week Due	Proportion of Total Assessment
1	Questions and exercises	fourth and fifth	10%
2	Theoretical midterm exam	sixth	20%
3	practical midterm exam	eighth	20%
4	Final practical exam.	fourteenth	20%
5	Final Theoretical exam	Last week	40%

D. Student Academic Counseling and Support

Two hours of weekly academic guidance

E. Learning Resources

1. List Required Textbooks : **Chemistry electrical electrolytic conductivity Ahmed Abdulaziz Al Owais**
2. List Essential References Materials : • **Foundations of physical chemistry, Adel Ahmed Jrare** • .....
3. List Recommended Textbooks and Reference Material : • **Chemistry electrical electrolytic conductivity Ahmed Abdulaziz Al Owais**
4. List Electronic Materials : • **.Wikipedia** • .....
5. Other learning material : • **Power point - CD show**

F. Facilities Required

1. Accommodation • **Prepared Classroom with Interactive whiteboard** • **40 chair.**
2. Computing resources • **Laptop special for Professor only** • .....
3. Other resources • **There is a need to equip lab special for this course**

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching:

- Meeting with the students academic excellence and the stumble
- Identification of evaluation for the course form students

2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor :

- Benefit from the expertise of the members of the section
- Identify assessment for teachers
- Report of the expert from College matchups

3 Processes for Improvement of Teaching :

- Courses for Faculty members
- Workshop to improve methods of evaluation .....
- .....

4. Processes for Verifying Standards of Student Achievement

- The patch is checked by faculty member

5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement :

- discussion the members section regularly to improve the course
- feedback processes for course quality

Course Specification Approved
Department Official Meeting No (…..) Date … / …. / ….. *H*

Course's Coordinator	**Department Head**
Name : **Ebthag Elhassan**	***Name :*** .....
Signature :	***Signature :*** .....
Date : …./ … / …… *H*	***Date :*** …./ … / …… *H*