جامعة المجمعة
Majmaah University

Course Specifications

Institution:	**Majmaah University**
Academic Department :	**Chemistry**
Programme :	**Chemistry**
Course :	**Phase Rule**
Course Coordinator :	**Ebthag ELhassan**
Programme Coordinator :	**Dr.Gehan Laaemary**
Course Specification Approved Date :	**20/12 / 1435 H**

This form compatible with NCAAA 2013 Edition

A. Course Identification and General Information

1 - Course title : **Phase Rule**		Course Code: **CHEM212**	
2. Credit hours : **(2 hours)**			
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 : **Third level**			
7 - Pre-requisites for this course (if any) : **General Chemistry**			
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?

requesting to know the basics of phase rule. Recognize single-component system, tow-component system, Multy component system

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
Define States of matter and the comparison between them , The equanimities types	2	2
Define the system ,phase, component, dgree of freegom	2	2
Derive the equation for the phase	1	1
one-component system (water system, sulphur system)	2	2
two-component system (equilbrum of solid compounds with gas) , Balance liquid liquid phase	2	2
Intensive systems (solid systems)	2	2
Solid solution system Fully miscible	1	1
Solid solution system Limited mixing	1	1
- Multy component system	2	2
Practical		
Relationship between solubility of tow Liquid low-mixing	1	2
Boiling point of two-component system	2	4
Set the coefficient of distribution of ammonia between chloroform and water	1	2
Application of triple systems phase base component	1	2

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

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	1	.....	2	.....	.....	2

Credit	**1**	**.....**	**2**	**.....**	**.....**	**3**

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

2

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	requesting to know the basics of phase rule	lecture discussion, mutual dialogue	Oral tests at the beginning of each lecture, Written tests, final examination
1.2	Recognize single-component system		
١.٣	Recognize tow-component system		
١.٤	Recognize - Multy component system		
١.٥			
١.٦			
2.0	**Cognitive Skills**		
2.1	Use the phase rule to determine the number of components - phases- degrees of freedom of the different systems	problems, Laboratory study Open discussions	Continuous questions- duties - practical test
2.2	Study of mono- two-and three-component system practically		
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		

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
	students		
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%
6			

D. Student Academic Counseling and Support

Two hours of weekly academic guidance

E. Learning Resources

1. List Required Textbooks : • General Chemistry.,Abbas Abbas Al-Awadi ... • .....
2. List Essential References Materials : • Phase contrast balance **and phase rule , D.Amin Braka** • .....
3. List Recommended Textbooks and Reference Material : • ..... • ..... • .....
4. List Electronic Materials : • **Wikipedia** ...
5. Other learning material : • Power point show- CD.

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 student. • .....
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* ☐