جامعة المجمعة
Majmaah University

Course Specifications

This form compatible with NCAAA 2013 Edition

Institution:	Majmaah University
Academic Department :	Chemistry
Programme :	Chemistry
Course :	Descriptive Analytical Chemistry
Course Coordinator :	Lecturer. Amneh Shtaiwi
Programme Coordinator :	Dr. Gehan Alaemary
Course Specification Approved Date :	18/ 12 / 1435 H

A. Course Identification and General Information

1 - Course title : Quantitative Analytical Chemistry. Course Code: Chem 224.

2. Credit hours : 3

3 - Program(s) in which the course is offered: Chemistry

4 – Course Language : Arabic

5 - Name of faculty member responsible for the course: Lecturer. Amneh Shtaiwi

6 - Level/year at which this course is offered :

7 - Pre-requisites for this course (if any) :

- **General Chemistry I**

8 - Co-requisites for this course (if any) :

- **Descriptive analytical chemistry lab**

9 - Location if not on main campus **:**

main campus

10 - Mode of Instruction (mark all that apply)

A - Traditional classroom		What percentage?	..... %	
B - Blended (traditional and online)	√	What percentage?	75 %	
D - e-learning	√	What percentage?	25%	
E - Correspondence		What percentage?	..... %	
F - Other		What percentage?	..... %	

Comments :

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B Objectives

What is the main purpose for this course?

- **Define the importance for the descriptive analysis and foundations.**

- definition the types of inorganic interactions. **- Focus on the values of equilibrium constants.**
Briefly describe any plans for developing and improving the course that are being implemented : **Using Internet in the research work** .

C. Course Description

1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
-- A general introduction in analytical chemistry types includes the importance of the study of analytical chemistry in the areas of pharmacy, the environment and nature.	2	4
-The importance of the study descriptive analysis.	3	6
- The basics of descriptive analysis.	4	8
- View of some devices used in the descriptive analysis.	1	2
- The theoretical basis for the separation and analysis of mixtures and analysis of various samples.	3	6
-Descriptive analysis and methods used in the expression of different concentrations. Equilibrium and the formation of complexes.	2	4
- Precipitationequilibrium.	1	2

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

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	.....	.....	.....	.....	.....	2
Credit	2	.....	2	.....	.....	3

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

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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	**- To learn the concept of Quantitative analytical chemistry and its importance. - To learn methods used in the expression of different concentrations, Equilibrium and the formation of complexes.**	Lecture Exercises Discussion	Exams, Questions
1.2	**separation and analysis of mixtures.**	Experiments Discussion	Experimental Study, Exams
2.0	**Cognitive Skills**		
2.1	**- Describe the The theoretical basis for the separation and analysis of mixtures and analysis of various samples**	Lecture, Exercises Discussion	Exams, Questions
2.2	**- The basics of descriptive analysis.**	Lecture, Exercises Discussion	Exams, Questions
3.0	**Interpersonal Skills & Responsibility**		
3.1	**Teamwork**	Divide in the form of practical sets.	Oral exercises.
4.0	**Communication, Information Technology, Numerical**		
4.1	**- Calibrations calculations for neutralization interactions , redox , sedimentation and complexes**	Lecture, Discussion	Oral exercises Exams.
5.0	**Psychomotor**		
5.1	**Experimental work**	Lecture, Discussion	Oral exercises Exams.

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

	Assessment task	Week Due	Proportion of Total Assessment
1	**First Exam**	6	15
2	**Second Exam**	10	15

3	**Final Exam**	14	60
4	**Resaearch**	9	10

D. Student Academic Counseling and Support

Academic Advising

E. Learning Resources

1. List Required Textbooks :

- Analytical Chemistry volumetric analysis and weighted, Ibrahim Al-Zamel. 1993.
- Quantitative analytical chemistry, 5th edition by j.S. Fritz and G.H. Schneck. 1987 .

2. List Essential References Materials :

- Analytical Chemistry volumetric analysis and weighted, Ibrahim Al-Zamel. 1993.
- Key creativity in Chemistry, Omar Helwah .

3. List Recommended Textbooks and Reference Material :

- Quantitative analytical chemistry, 5th edition by j.S. Fritz and G.H. Schneck. 1987

4. List Electronic Materials :

- chemix, chemsketch, chemdraw programs.
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5. Other learning material :

- Crocodile program.

F. Facilities Required

1. Accommodation

- Seats and computers.

2. Computing resources

- Lap top.

3. Other resources • Projector.

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching: • Questionnaires Evaluation.
2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor : • Discussions.
3 Processes for Improvement of Teaching : • Review course plans periodically and adjuste..
4. Processes for Verifying Standards of Student Achievement • Corrected tests with the teaching staff of the department..
5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement : • Questionnaires Evaluation.

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

Course's Coordinator	**Department Head**
Name : Amneh Shtaiwi	***Name :*** .....
Signature : Amneh Shtaiwi	***Signature :*** .....
Date : 18/ 12 / 1435 *H*	***Date :*** …./ … / …… *H*