جامعة المجمعة
Majmaah University

Course Specifications

Institution:	Majmaah University.
Academic Department :	Chemistry Department.
Programme :	Chemistry.
Course :	General Chemistry (2) In Organic.
Course Coordinator :	Manal Mohamed Salem.
Programme Coordinator :	Gehan Alaemary.
Course Specification Approved Date :	19/ 12 / 1435 H

This form compatible with NCAAA 2013 Edition

A. Course Identification and General Information

1. 1 - Course title : General Chemistry (2) In organic	Course Code: **CHEM213**
2. Credit hours :	**(3** hours ☐☐☐
3 - Program(s) in which the course is offered:	Chemistry.
4 – Course Language :	Arabic Language
2. 5 - Name of faculty member responsible for the course:	Manal Mohamed Salem
3. 6 - Level/year at which this course is offered :	level **(3)**
7 - Pre-requisites for this course (if any) :	General Chemistry (1)
8 - Co-requisites for this course (if any) :	Experiments General Chemistry (2) inorganic
9 - Location if not on main campus **:**	College of Education - Zulfi☐

10 - Mode of Instruction (mark all that apply)☐

A - Traditional classroom☐	√☐	What percentage?	**20 %**☐
B - Blended (traditional and online)☐	x☐	What percentage?	**-**☐
D - e-learning☐	√☐	What percentage?	**80 %**☐
E - Correspondence☐	x☐	What percentage?	**0%**☐
F - Other	☐	What percentage?	**%**☐

Comments :
☐

B Objectives

What is the main purpose for this course?

-To recognize the installation of atom and the various theories that dealt with atom.
-Explaining electronic structure of chemical elements and their properties through the study of the periodic table.
-Explaining chemical bonds and different characteristics.

Briefly describe any plans for developing and improving the course that are being implemented :

- Adoption of the students themselves in the study,
- The use of effective teaching methods and modern.
- Change the content and updated

C. Course Description

1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
1-The atomic structure - Electromagnetic radiation and electromagnetic wavelengths for each area.	1	2
- Atomic spectra- continuous spectrum -linear spectrum (atomic emission spectrum)- - Raadberg equation, - chains Spectrum (Palmer Lehman Passion…).	1	2
- Atomic numbers discovery of X-rays and X-rays linked to each element of atomic numbers atomic numbers related to the number of protons in the nucleus (Rutherford experiments and Mosls).	1	2
- Bohr theory of the hydrogen atom. - Theory quantum for Planck - Uncertainty rule for Heyznberg	1	2
- Schrodinger equation of quantum numbers and atomic forms - Orbitals. Arrangements for the electronic elements of many electrons (the principle of UV) - Pauli exclusion principle, - Hund base and spin of electrons	2	4
2-periodic elements. modern periodic table and electronic structure of the elements	1	2
- Periodic in the electronic structure of the elements of the periodic trends in the valence of elements, metals and non-metals, the change in the climate characteristics: Size and atomic ion with an explanation of the effective nuclear charge, and ionization energy, electron affinity, electronegativity.	2	4
3-Chemical bonds: Structures Lewis links ionic factors affecting the ionic bonding of covalent bonding, the rank of the Association of harmonizing resonance covalent bonds polar molecules	3	6
4-Covalent bonds and partial structure Molecular shapes and dissonance theory pairs valence VSEPR. Theory of covalent bonds. 1. valence bond theory VB. 2. Hybridization 3 Molecular Orbitals theory MO.	3	6

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

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	30	.....	28		.....	58hr.
Credit	.....	.....	.....	.....	.....	.....

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

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	By the end of this course the students will be able to: - know comprehensive scientific facts about the structure of the atom - punctuate scientific theories related to the elements of the periodic table - punctuate the types of chemical bonds..	- Lectures - Discussion - Experiments - Researches	-Work activities -Field exercises -Periodic tests -Final tests
1.2			
1.3			
1.4			
1.5			
1.6			
2.0	**Cognitive Skills**		
2.1	By the end of the course students should be able to: The ability of the existence of solutions to unexpected problems in creative ways.	-Lectures -Discussion -Experiments -Researches	- Participate in the hall - Research in the content. - solve problems - collective and
2.2	The ability to use laboratory tools accurately.		
2.3	The ability to critical and analytical thinking.		

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
2.4	The ability to analyze the concepts and basics and principles.		individual duties. - midterm and final exams
2.5	trying to figure out the problems contained testing process and how to solve it.		
2.6	Apply the skills acquired in the academic and professional contexts related to the science of chemistry.		
3.0	**Interpersonal Skills & Responsibility**		
3.1	By the end of the course students should be able to: Cooperative work in the laboratory.	-Homework to develop the skills of self-study. -The practical studies as groups. -The work of - Intramural Research -Internet search -PowerPoint Offers.	Follow up experiments in the laboratory , Effective participation within the hall - Assessment research and Review the Collective duties. - The ability to self-Study in the form of homework. Follow up experiments in the laboratory .
3.2	Conduct research work as a team.		
3.3	Effective participation in the activities of the methodology.		
3.4	The ability to self-reliance when learning.		
3.5	Assume responsibility and individual responsibility towards society		
3.6	Take individual responsibility and responsibility towards the community with a commitment to the values and ethics that are compatible with Islamic values		
4.0	**Communication, Information Technology, Numerical**		
4.1	By the end of the course students should be able Use of modern communication technologies and information.	Solving problems. Use of the Computer The use of a calculator. Discussion and dialogue	Discussion Monthly tests And Theoretical tests.
4.2	Discussion and dialogue during lectures.		
4.3	Application of mathematical and statistical methods when solving problems.		
4.4	**.....**		
4.5	**.....**		.....
4.6	**.....**	.....	.....
5.0	**Psychomotor**		
5.1	By the end of the course students should be able to: Use of laboratory tools properly and accurately.	The use of telecommunications and information technology(ICT) Training in the laboratory.	An oral and practical tests.
5.2	Use of computers in power point Offers		
5.3	The student mastered the use of security tools and safety laboratory.		
5.4	**.....**	.....	.....

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
5.5	.....	.....	.....
5.6	.....	.....	.....

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

	Assessment task	Week Due	Proportion of Total Assessment
1	Participation activities students methodological Of scientific research – Entries…	Weekly	10%
2	Med- term exam.	Sixth week	20%
3	Final test (practical)	Fourteenth week	20%
4	Final test (theoretical)	Nineteenth Week	50%
5	.....	.....	.....
6	.....	.....	.....
7	.....	.....	.....
8	.....	.....	.....

D. Student Academic Counseling and Support

-Benefit from the counseling hours
- Communicate with students

E. Learning Resources

1. List Required Textbooks :

1- General Chemistry, " Abdul Aziz Al Owais, S. Khwaiter, A.. Al Wasil, A . Alsuhaibani.
2 "General Chemistry" Adel Ahmed unit, Kamal Ibrahim Abu-Dari, Fawaz Izzat al-Khalili.
3 "Fundamentals of General Chemistry," Prof. Ahmed Hassan Shehata, Arab House library for the book, first edition 2006
4.issues and solutions in general chemistry," Mohammed Shafiq Kanani, Nasser Mohammed Pets @.
5. "the foundations and principles of chemistry," Mohammed preached Hassan Saleh, Secretary Saber Mohammed, Osman Ibrahim Osman.
6. "General Chemistry" Salah Mustafa Sultan, King Fahd University, Dhahran. 7

7."experiments in inorganic chemistry, analytical and physical," Magdi Mohammed continued, Dar dawn for publication and distribution

2. List Essential References Materials :

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1- 1- General Chemistry, " Abdul Aziz Al Owais, S. Khwaiter, A.. Al Wasil, A . Alsuhaibani.
2 "General Chemistry" Adel Ahmed unit, Kamal Ibrahim Abu-Dari, Fawaz Izzat al-Khalili.
3 "Fundamentals of General Chemistry," Prof. Ahmed Hassan Shehata, Arab House library for the book, first edition 2006

List Recommended Textbooks and Reference Material :

- .....
- .....
- .....

4. List Electronic Materials :

www. Science-direct.com.

5. Other learning material :

- .....
- .....
- .....

F. Facilities Required

1. Accommodation

Lecture room is excellent,
Lecture room contains Platform , smart board, 40 seats,
and curtains in good condition.

2. Computing resources

- Personal.

3. Other resources

Availability of equipment relevant to the course material .

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching:

- Analysis of the results of students in decision .
- Questionnaire a faculty member for the students at the end of the semester.
- Ask a questionnaire that content course for students in the end of the semester .
- Exam Midterm .
- Assess vocabulary scheduled by analyzing workmanship skills among students.

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

- Peer consultation on teaching ,
- discuss research students with some of the members of the section ,
- Invite specialists and their discussion.

3 Processes for Improvement of Teaching :

- Review of teaching strategies recommended.
- Diversity teaching methods and activating the use of modern technologies
- The formation of the scientific in section of qualified and experienced
- Provide learning resources, especially the library and the Internet.
- Motivate and encourage students to actively participate in the research and experimentation
- Participate effectively in the training courses for the development of the capacities of Professor.
- Training and continuous development
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4. Processes for Verifying Standards of Student Achievement

- check marking by a faculty member of the department for a sample of students
- check marking by an independent faculty member.

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

- Develop appropriate vocabulary and keep pace with changing times
- Reviewing Course Description
- Follow-up in the new effective teaching strategies
- benefit from the development of university courses and activated in educational performance
- Hold workshops to view the results.

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

Course's Coordinator		**Department Head**	
Name :	Manal Moh. salem	***Name :***	Gehan Alomayri.
Signature :	M.Salem	***Signature :***	.....
Date :	19/ 12 / 1435 *H*	***Date :***	…./ … / …… *H*