جامعة المجمعة
Majmaah University

Course Specifications

Institution:	Collage of Education -Zulfi
Academic Department :	Chemistry
Programme :	Chemistry
Course :	organic chemistry (polymers and patrol)-CHEM 314
Course Coordinator :	Nawal Mahgoub Suleman
Programme Coordinator :	Gehan Alaemary.
Course Specification Approved Date :	28/ 12 / 1436 H□

This form compatible with NCAAA 2013 Edition

A. Course Identification and General Information

1 - Course title : organic chemistry (polymers patrol)	Course Code: 14
2. Credit hours : 3	
3 - Program(s) in which the course is offered: Chemistry	
4 – Course Language : rabic	
5 - Name of faculty member responsible for the course: awal ahgoub	
6 - Level/year at which this course is offered : Fifth level	
7 - Pre-requisites for this course (if any) : • -	
8 - Co-requisites for this course (if any) : -	
9 - Location if not on main campus : (-)	

10 - Mode of Instruction (mark all that apply)

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

Comments :

.....

B Objectives

What is the main purpose for this course?

Student can know the outline definition of the chemistry and polymer technology, and the basic principles of the polymerization process and the technical conditions used in the polymerization processes, as well as the physical, chemical and thermal properties of polymers.
Give the student a good idea for oil and petroleum and petrochemical industries

Briefly describe any plans for developing and improving the course that are being implemented : **The use of different teaching methods, such as: Blended education and E-learning**

C. Course Description

1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
A:Theoretical First Part: Plastics and polymers Definition of olymers, manufacture and study mechanism of polymerization □	**1**	**2**
Types of polymerization: condensation and addition polymerization. Study of reaction rates	**2**	**4**
The study of the physical properties with examples in preparation of each of them	**2**	**4**
The study of the important physical properties take advantage of plastics in practical life	**1**	**2**
Second part: Oil Chemistry About what oil, its history, methods of oil formation, its origin ,and mechanism of formation	**2**	**4**
The flow of oil from its original positions to the presence sites and methods of exploration for, and the role of exploration geochemistry in it and extraction and refining methods	**2**	**4**
Uses oil as a source of energy and petrochemical industries and fractional distillate of oil and its uses	**5**	**10**
B-Practical: Soap and detergent manufacturing and prepare some polymers	**13**	**26**

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

□	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	**2**□	**-.**□	**2**	**-.**□	**-.**□	4□

Credit	2□	-□	1□	-.□	.-□	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 identify the nature of the polymerization process	lecture	Written and oral tests.
1.2	Identify technical conditions used in the polymerization processes	lecture	Written and oral tests.
1.3	- Identify the physical and chemical and thermal. characteristics of polymers	lecture	Written and oral tests.
1.4	Remember that the physical properties of Plastic	lecture	Written and oral tests.
1.5	To describe the task petrochemical industries	Laboratory	Laboratory test
1.6	Define the basic compounds that make up the oil	lecture	Written and oral tests.
2.0	**Cognitive Skills**		
2.1	Can rewrite equations for polymer preparations under study	lecture	Written and oral tests.
2.2	Apply mechanisms of polymerization operations	lecture	Written and oral tests.
2.3	The distinction between different types of polymers	lecture	Written and oral tests.
2.4	Summarizes the most important phases of oil extraction	Laboratory	Laboratory test and observation
2.5	Preparation of some polymers and soap	Laboratory	Laboratory test
2.6	The estimated value of machinery and chemicals	Laboratory	Laboratory

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
	used in the experiments.		test
3.0	**Interpersonal Skills & Responsibility**		
3.1	**Distribution of students into groups to conduct experiments**	Laboratory	Laboratory test and observation
3.2	**Cleaning tools before and after the experiment**	Laboratory	Laboratory test and observation
3.3	**Cleanliness of the place in laboratory**	Laboratory	Laboratory test and observation
3.4	**Maintain herself and her colleagues by applying the security and safety in the laboratory**	Laboratory	Laboratory test and observation
3.5	-	-	-
3.6	-	-	-
4.0	**Communication, Information Technology, Numerical**		
4.1	**Deal with the computer through the use of the World Wide Web.**	Discussion	Written and oral tests.
4.2	**Calculating the ratio of outputs**	Laboratory	Laboratory test
4.3	**Research in the form of PowerPoint**	Discussion	Written and oral tests.
4.4	**Homework through the D2l program**	E-learning	Written and oral tests.
4.5	-	-	-
4.6	-	-	-
5.0	**Psychomotor**		
5.1	**Use the tools of the laboratory accurately**	Laboratory	Laboratory test and observation
5.2	**Use a device to measure preparations of polymers**	Laboratory	Laboratory test and observation
5.3	-	-	-
5.4	-	-	-
5.5	-	-	-

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
5.6	-	-	-

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

	Assessment task	Week Due	Proportion of Total Assessment
1	Oral and written exercises	weakly	10%
2	Search in the form of groups presented with PowerPoint	14	5%
3	Practical reports	weakly	5%
4	Mid-semester test	8	20%
5	Final practical test	15	20%
6	Final theoretical test	18	40%
7			
8	-	-	-

D. Student Academic Counseling and Support

Two hours per week found in Table professor lecturing and unannounced in Billboard

E. Learning Resources

1. List Required Textbooks :

- **The foundations of stereochemistry and organic polymers, "Abdullah Hijazi, Salem bin Sulayem Thiyabi, Faculty of Science, King Saud University.**
- **Petroleum and petrochemical industries," Salem Bin Sulayem Thiyabi, Faculty of Science, King Saud University, 1418/1997**

2. List Essential References Materials :

- **The foundations of stereochemistry and organic polymers, "Abdullah Hijazi, Salem bin Sulayem Thiyabi, Faculty of Science, King Saud University.**
- **Petroleum and petrochemical industries," Salem Bin Sulayem Thiyabi, Faculty of Science, King Saud University, 1418/1997**

3. List Recommended Textbooks and Reference Material : • Journal of Saudi Chemical society • Arabian journal of chemistry
4. List Electronic Materials : • www.googel.com. • http://en.wikipedia.org/wiki/Organic_chemistry • www.Spriger .com • http://www.organic-chemistry.org
5. Other learning material : • PowerPoint • Java • Photoshop

F. Facilities Required

1. Accommodation • Building No. 1 Hall 68 is equipped with 25 chair and display screen projector Chemistry Lab (1) contains three Benches and display screen and projector is equipped with tools and safety and security of hoods, gas cabinets, shower wash, fire extinguishers and other
2. Computing resources • Laptop faculty member.
3. Other resources • laboratory must be equipped with the following: - glassware – various chemicals - Water baths -Bnzin- stoves, etc .

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching: • Form calendar course • Discuss with the students to learn about their views, teaching methods used
2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor : • Benefit from the expertise of the members of the section and discussion in order to improve job performance • assessment questionnaire Staff Member of the decision

workshops to develop evaluation methods.
3 Processes for Improvement of Teaching : • Training courses for the development of teaching and learning methods • Refer to the Web sites to learn new teaching methods
4. Processes for Verifying Standards of Student Achievement • Checking and correcting sample of student work by independent teacher • Exchange with another college to correct sample test
5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement : • Writing a report on the course • plan for improvement and development . • contact similar departments within the Kingdom • contact sections of similar universities outside the Kingdom

Course Specification Approved
Department Official Meeting No (3) Date 28 / 12 / 1436 *H*

Course's Coordinator	Department Head
Name : Nawal Mahgoub	***Name :*** Gehan Alaemary
Signature :	***Signature :*** .....
Date : 28 / 12 / 1436 *H*	***Date :*** 28/ 12 / 1436 *H*