



Course Specifications

Institution:	Collage of Education -Zulfi
Academic Department :	Chemistry
Programme :	Chemistry
Course :	Chemistry of dyes (CHEM 413)
Course Coordinator :	Amani Hassan Ahmed
Programme Coordinator :	Dr.Gehan Alaemary
Course Specification Approved Date :	28/ 12 / 1436 H□

A. Course Identification and General Information

1 - Course title :	<input type="text"/>	Course Code:	<input type="text"/>																														
2. Credit hours :	4																																
3 - Program(s) in which the course is offered:	Chemistry																																
4 - Course Language :	: <input type="text"/>																																
5 - Name of faculty member responsible for the course :	: <input type="text"/>																																
6 - Level/year at which this course is offered :	7th level																																
7 - Pre-requisites for this course (if any) :	<ul style="list-style-type: none"> Chemistry of Heterocyclic compounds 																																
8 - Co-requisites for this course (if any) :	- <input type="text"/>																																
9 - Location if not on main campus :	(-)																																
10 - Mode of Instruction (mark all that apply)	<table border="1"> <tr> <td>A - Traditional classroom</td> <td><input checked="" type="checkbox"/></td> <td>What percentage?</td> <td><input type="text"/></td> <td>50%</td> <td><input type="checkbox"/></td> </tr> <tr> <td>B - Blended (traditional and online)</td> <td><input type="checkbox"/></td> <td>What percentage?</td> <td><input type="text"/></td> <td>..... %</td> <td><input type="checkbox"/></td> </tr> <tr> <td>D - e-learning</td> <td><input checked="" type="checkbox"/></td> <td>What percentage?</td> <td><input type="text"/></td> <td>25%</td> <td><input type="checkbox"/></td> </tr> <tr> <td>E - Correspondence</td> <td><input type="checkbox"/></td> <td>What percentage?</td> <td><input type="text"/></td> <td>%</td> <td><input type="checkbox"/></td> </tr> <tr> <td>F - Other</td> <td><input type="checkbox"/></td> <td>What percentage?</td> <td><input type="text"/></td> <td>25 %</td> <td><input type="checkbox"/></td> </tr> </table>			A - Traditional classroom	<input checked="" type="checkbox"/>	What percentage?	<input type="text"/>	50%	<input type="checkbox"/>	B - Blended (traditional and online)	<input type="checkbox"/>	What percentage?	<input type="text"/> %	<input type="checkbox"/>	D - e-learning	<input checked="" type="checkbox"/>	What percentage?	<input type="text"/>	25%	<input type="checkbox"/>	E - Correspondence	<input type="checkbox"/>	What percentage?	<input type="text"/>	%	<input type="checkbox"/>	F - Other	<input type="checkbox"/>	What percentage?	<input type="text"/>	25 %	<input type="checkbox"/>
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Comments :	<input type="text"/>																																

B Objectives

- | |
|---|
| Student may know in general organic dyes |
| Student can prepare dyes as azo or phthalene dyes . |
| Student can study Physical properties of organic dyes |

C. Course Description

1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
A:Theoretical Colors theory and structure	2	6
Classification of dyes (natural dyes, synthetic dyes)	1	3
Structure of synthetic dyes(azo, nitrozo, nitro, triarylmethane ,zanthan, andigwo,and active dyesand others).	3	9
Types of dyeing processes	2	6
Kinetic and thermodynamic dyeing process	2	6



Types of fibers (cotton, wool, cellulose, synthetic fibers, Ryon, Silk)		
Fiber manufacturing, purification and evacuation and bleach		
Cellulosic fibers (composition, properties and methods of identification)	1	3
Kinds of forces that bind the dye fiber	1	3
B:Practical		
Preparation of some organic dyes such as azo dyes and phthalene, and doing a process dye on cotton fiber and silk		

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

<input type="checkbox"/>	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	3 <input type="checkbox"/>	- <input type="checkbox"/>	2	- <input type="checkbox"/>	- <input type="checkbox"/>	5 <input type="checkbox"/>
Credit	3 <input type="checkbox"/>	- <input type="checkbox"/>	1 <input type="checkbox"/>	- <input type="checkbox"/>	- <input type="checkbox"/>	4

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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	Identify the types of dyes (azo, nitro nitrozo, triararyl methane, zanthan, Indigo and active dyes)	lecture	Written and oral tests.
1.2	Remember the physical properties of organic pigments	lecture	Written and oral tests.
1.3	To describe Kinds of forces that bind the dye fiber	lecture	Written and oral tests.
1.4	To write structure of phthalene dyes	lecture	Written and



	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
			oral tests.
1.5	Define the preparation methods of some organic pigments such as azo dyes	Laboratory	Laboratory test
1.6	Can listed the different types of fibers.	lecture	Written and oral tests.
2.0	Cognitive Skills		
2.1	Can rewrite structures of the different dyes under study	lecture	Written and oral tests.
2.2	Apply preparation methods of some organic pigments such as azo dyes	Laboratory	Laboratory test
2.3	The distinction between different types organic pigments	lecture	Written and oral tests.
2.4	Summarizes the most important Kinds of forces that bind the dye fiber	lecture	Written and oral tests.
2.5	Doing a process dye on cotton fiber and silk	Laboratory	Laboratory test
2.6	The estimated value of machinery and chemicals used in the experiments.	Laboratory	Laboratory 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



	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
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 for preparations of dyes	Laboratory	Laboratory test and observation
5.3	-	-	-
5.4	-	-	-
5.5	-	-	-
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	weekly	15%
2	Search in the form of groups presented with PowerPoint	14	5%
3	Mid-semester test	8	20%
4	Final practical test	15	20%
5	Final theoretical test	18	40%
6	-	-	-
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 :

- Kallus Honger ;Industrial Dies :Chemistry Properties ,Applications ,Willy ,VCH,Verlag Gmbh and KcoA Weinleim 2003
- Organic Chemistry “ R.T.Morrison &R.N.Boyed 1987,(5th Ed) Allen &Bacon Inc.U.SA.

2. List Essential References Materials :

- Kallus Honger ;Industrial Dies :Chemistry Properties ,Applications ,Willy ,VCH,Verlag Gmbh and KcoA Weinleim 2003
- Organic Chemistry “ R.T.Morrison &R.N.Boyed 1987,(5th Ed) Allen &Bacon Inc.U.SA.

3. List Recommended Textbooks and Reference Material :

- Journal of Saudi Chemical society
- Arabian journal of chemistry

4. List Electronic Materials :

- www.google.com.
- http://en.wikipedia.org/wiki/Organic_chemistry
- [www.Spriger .com](http://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 : Amani Hassan hmed

Name : Dr.Gehan Alaemary

Signature :

Signature :

Date : 28 / 12 / 1436 H

Date : 28/ 12 / 1436 H

