

جامعة : المنصورة

كلية : العلوم

قسم / الكيمياء

توصيف مقرر دراسي

١- بيانات المقرر		
الرمز الكود : ٢٣٣	أسم المقرر: Physical Organic chemistry 2	المستوى : الثاني
البرنامج : الكيمياء	عدد الوحدات الدراسية: ٣ نظري : ٢ تمارين: ٠ عملي: ٣	

٢- هدف المقرر:		For students undertaking this course, the aims are to:
		<ol style="list-style-type: none"><li>1. Introduce the basic concepts of nucleophilic reactions on carbonyl compounds.</li><li>2. Study the stereochemistry and reaction mechanisms.</li><li>3. Study the different reactions of amines.</li><li>4. Provide the students with the capability to outline a feasible reaction mechanism.</li><li>5. Acquiring the students the IT and communication skills.</li></ol>
٣- المستهدف من التدريس المقرر:		
أ-المعلومات والمفاهيم:		<b>a- Knowledge and Understanding :</b>  <b>On completing this course, students will be able to:</b>  a1- Define the basic concepts of nucleophilic reactions.  a2- Define the basic concepts of Aldol reactions.  a3- Recognize the different reaction intermediates inorganic chemistry.  a4- Recognize the different reactions of amines.
ب-المهارات الذهنية		<b>b- Intellectual Skills: On completing this course, students will be able to:</b>  b1- Suggest a suitable reaction mechanism.  b2- Decide the type of nucleophilic reaction  b3- Predict the more probable reaction product.  b4- Outline suitable methods to synthesis some organic compounds.
ج- المهارات المهنية		<b>c-Professional and Practical Skills: On completing this course,</b>

<b>students will be able to:</b>  c1- investigate unknown organic compounds.  c2- differentiate between different organic compounds.  c3- classify unknown organic compounds.	الخاصة بالمقرر:									
<b>d-General and Transferable Skills: On completing this course, students will be able to:</b>  d1- work effectively both in a team and independently on solving organic chemistry.  d2- use IT and search for information.  d3- communicate effectively with his teacher and colleagues.	د- المهارات العامة :									
1- Nucleophilic addition to carbonyl compounds. 2- Aldol reactions – addition of enolate anions to aldehydes and ketones. 3- Nucleophilic addition – elimination at the acyl carbon of carboxylic acid and their derivatives. 4- Reactions of amines.	٤- محتوى المقرر:									
5.1 - Lectures using data show and board.  5.2 - Tutorial  5.3 - Laboratory work.  5.4 - Home works, reports and discussion groups	٥- اساليب التعليم والتعلم:									
<b>The same as normal students, only skeletal disabilities are allowed in the Faculty of Science.</b>	٦- أساليب التعليم والتعلم للطلاب ذوي القدرات المحدودة:									
٧- تقويم الطلاب :										
<b>7- Student Assessment Methods</b>										
<table><tr><td>Practical exam</td><td>To assess</td><td>c1-c3</td></tr><tr><td>Final exam</td><td>to assess</td><td>a1-a4 ,b1-b4</td></tr><tr><td>Oral exam</td><td>to assess</td><td>a1-a4 ,b1-b4</td></tr></table>	Practical exam	To assess	c1-c3	Final exam	to assess	a1-a4 ,b1-b4	Oral exam	to assess	a1-a4 ,b1-b4	أ- الأساليب المستخدمة :
Practical exam	To assess	c1-c3								
Final exam	to assess	a1-a4 ,b1-b4								
Oral exam	to assess	a1-a4 ,b1-b4								

<b>Mid-term exam</b>	<b>To assess</b>	a1-a2 , b1-b3		
<b>Report</b>	<b>to assess</b>	d1-d3		
<b>Assessment Schedule</b>				<b>ب- التوقيت :</b>
<b>Assessment 1</b>	<b>Week #final exam</b>	<b>Week 14</b>		
<b>Assessment 2</b>	<b>Week #oral exam</b>	<b>Week 14</b>		
<b>Assessment 3</b>	<b>Week #practical exam</b>	<b>Week 12</b>		
<b>Assessment 4</b>	<b>Week #mid-term exam</b>	<b>Week 7</b>		
<b>Assessment 5</b>	<b>Week #report</b>	<b>Week 10</b>		
<i>Weighting of Assessments</i>				<b>ج- توزيع الدرجات :</b>
	<b>Final-Term Examination</b>	<b>60%</b>		
	<b>Oral Examination</b>	<b>10%</b>		
	<b>Practical Examination</b>	<b>20%</b>		
	<b>Semester work</b>	<b>0%</b>		
	<b>Mid-term examination</b>	<b>10%</b>		
	<b>Other types of assessment</b>	<b>0%</b>		
	<b>Total</b>	<b>100%</b>		
<b>٨- قائمة الكتب الدراسية والمراجع :</b>				
				<b>أ- مذكرات:</b>
Solomons , Fundamental of organic chemistry , Johnwilly Sons , Inc.934,1997				<b>ب- كتب ملزمة</b>
Text Book of organic chemistry , Arun Bahl and B.S.Bahl,16 <sup>th</sup> Edition , S.chand,2004				<b>ج- كتب مقترحة :</b>

1- <a href="http://www.organic-chemistry.org/">http://www.organic-chemistry.org/</a>	د- دوريات علمية أو نشرات..
2- <a href="http://www.wikipedia.org/wiki/organicchemistry">http://www.wikipedia.org/wiki/organicchemistry</a>	

### مصفوفة المعارف والمهارات المستهدفة من المقرر الدراسي

المحتويات للمقرر	أسبوع الدراسة	المعارف الرئيسية	مهارات ذهنية	مهارات مهنية	مهارات عامة
1- Nucleophilic addition to carbonyl compounds.	1-4	a1,a3	b1-b3	c1-c3	d1-d3
2- Aldol reactions – addition of enolate anions to aldehydes and ketones.	5-6	a2,a3	b1-b4	c1-c3	d1-d3
3- Nucleophilic addition – elimination at the acyl carbon of carboxylic acid and their derivatives.	7-9	a1,a3	b1-b4	c1-c3	d1-d3
4- Reactions of amines.	10-11	a3,a4	b1-b4	c1-c3	d1-d3
5- Practical : Investigation of unknown organic compounds	1-10			c1-c3	d1-d3

أستاذ المادة : د./ايمن محمد محمود حسين كشك

رئيس مجلس القسم العلمي : أ.د./سالم السيد على السيد سمرة