

توصيف مقرر دراسي

١ - بيانات المقرر		
الرمز الكودي : Chemistry (2) Chem 131B	أسم المقرر: Organic Chemistry	المستوى: الثاني (بيولوجي)
التخصص: علوم البيئة	عدد الوحدات الدراسية: ٨	نظري ٤    تمارين ٠    عملي ٤

<p>٢ - هدف المقرر:</p> <p>For students undertaking this course, the aims are to:</p> <ul style="list-style-type: none"> <li>• Introduce the basic concepts of organic chemistry.</li> <li>• Introduce the principles of nomenclature of major classes of organic compounds.</li> <li>• Study the methods of preparation of major classes of organic compounds.</li> <li>• Study the physical properties of major classes of organic compounds.</li> <li>• Study the chemical reactions of major classes of organic compounds.</li> <li>• Enable the students to use chemical reactions in preparing different organic compounds.</li> </ul>	
٣ - المستهدف من التدريس المقرر:	
<p>أ- المعلومات والمفاهيم:</p> <p>a- Knowledge and Understanding : On completing this course, students will be able to:</p> <p>a1- define the basic concepts of organic chemistry .</p> <p>a2- identify the different classes of organic compounds and their reactivities.</p> <p>a3- list the different functional groups in organic compounds.</p>	
<p>ب- المهارات الذهنية</p> <p>b- Intellectual Skills: On completing this course, students will be able to:</p> <p>b1- apply nomenclature rules to name any organic compound.</p> <p>b2- distinguish different organic reactions.</p> <p>b3- predict products of a hypothetical reaction.</p>	
<p>ج- المهارات المهنية الخاصة بالمقرر:</p> <p>c-Professional and Practical Skills: On completing this course, students will be able to:</p> <p>c1- identify simple unknown organic compounds.</p> <p>c2- differentiate by experiment between different organic compounds.</p> <p>c3- determine the class of unknown organic compounds.</p>	
<p>د- المهارات العامة :</p> <p>d-General and Transferable Skills: On completing this course, students will be able to:</p> <p>d1- work effectively both in a team, and independently on solving organic chemistry problems.</p> <p>d2- use IT and search for information.</p> <p>d3- Identify rules and responsibilities.</p>	

<ul style="list-style-type: none"><li>Hydrocarbons</li><li>Alcohols (mono-, di- &amp; trihydric)</li><li>Mercaptans, Ethers, Thioethers.</li><li>Aliphatic aldehydes and ketones.</li><li>Carboxylic acids &amp; acid derivatives.</li><li>Amines, urea.</li><li>Stereochemistry &amp; isomerism.</li><li>Carbohydrates (mono- and disaccharides).</li><li>Aromatic compounds, benzene and its derivatives</li><li>Hologen compounds</li><li>Phenols</li><li>Aromatic aldehydes and ketones</li><li>Aromatic carboxylic acids (mono- &amp; dicarboxylic), aromatic sulphonic acids</li><li>Aromatic amines</li></ul> <p>Practical: Identification of simple organic compounds.</p>	٤- محتوى المقرر:															
<p>4 - Teaching and Learning Methods</p> <p>4 -١. Lectures using data show and board</p> <p>4. -٢ Home works, reports and discussion groups</p> <p>4-٣. Laboratory work.</p>	٥- اساليب التعليم والتعلم:															
<p>The same as normal students, only skeletal disabilities are allowed in the Faculty of Science.</p>	٦- أساليب التعليم والتعلم للطلاب ذوي القدرات المحدودة:															
٧- تقويم الطلاب :																
<p><i>Student Assessment Methods</i></p> <table><tr><td>Final exam</td><td>to assess</td><td>a1-a3, b1-b3</td></tr><tr><td>Oral exam</td><td>to assess</td><td>a1-a3, b1-b3</td></tr><tr><td>Practical exam</td><td>to assess</td><td>c1-c3,d1,d3</td></tr><tr><td>Quizzes</td><td>to assess</td><td>a1-a3, b1-b3</td></tr><tr><td>Report</td><td>to assess</td><td>d1-d3</td></tr></table>	Final exam	to assess	a1-a3, b1-b3	Oral exam	to assess	a1-a3, b1-b3	Practical exam	to assess	c1-c3,d1,d3	Quizzes	to assess	a1-a3, b1-b3	Report	to assess	d1-d3	أ- الأساليب المستخدمة :
Final exam	to assess	a1-a3, b1-b3														
Oral exam	to assess	a1-a3, b1-b3														
Practical exam	to assess	c1-c3,d1,d3														
Quizzes	to assess	a1-a3, b1-b3														
Report	to assess	d1-d3														
<p><b>Assessment Schedule</b></p> <table><tr><td>Assessment 1</td><td>Week #</td><td>14</td></tr><tr><td>Assessment 2</td><td>Week #</td><td>14</td></tr><tr><td>Assessment 3</td><td>Week #</td><td>12</td></tr><tr><td>Assessment 4</td><td>Week #</td><td>4, 8, 12</td></tr><tr><td>Assessment 5</td><td>Week #</td><td>10</td></tr></table>	Assessment 1	Week #	14	Assessment 2	Week #	14	Assessment 3	Week #	12	Assessment 4	Week #	4, 8, 12	Assessment 5	Week #	10	ب- التوقيت :
Assessment 1	Week #	14														
Assessment 2	Week #	14														
Assessment 3	Week #	12														
Assessment 4	Week #	4, 8, 12														
Assessment 5	Week #	10														
<p><i>Weighting of Assessments</i></p> <table><tr><td>Final-Term Examination</td><td>70</td></tr><tr><td>Oral Examination</td><td>10</td></tr><tr><td>Practical Examination</td><td>20</td></tr><tr><td>Semester work</td><td>0</td></tr><tr><td>Other types of assessment</td><td>0</td></tr><tr><td>Total</td><td>100</td></tr></table>	Final-Term Examination	70	Oral Examination	10	Practical Examination	20	Semester work	0	Other types of assessment	0	Total	100	ج- توزيع الدرجات :			
Final-Term Examination	70															
Oral Examination	10															
Practical Examination	20															
Semester work	0															
Other types of assessment	0															
Total	100															

٨- قائمة الكتب الدراسية والمراجع :

Principles of Organic Chemistry issued and authorized by chemistry department	أ- مذكرات:
Organic Chemistry , Straumanis, Andrei, Houghton Mifflin Harcourt, Boston (2009 )	ب- كتب ملزمة
Fessenden & Fessenden, Organic Chemistry, Willard Grant Press, Boston, Massachusetts, 2nd Edn. (1982)	ج- كتب مقترحة :
<a href="http://en.wikipedia.org/wiki/Organic_chemistry">http://en.wikipedia.org/wiki/Organic_chemistry</a> <a href="http://www.organic-chemistry.org/">http://www.organic-chemistry.org/</a> <a href="http://www.acdlabs.com/iupac/nomenclature/">http://www.acdlabs.com/iupac/nomenclature/</a>	د- دوريات علمية أو نشرات..

(أ) مصفوفة المعارف والمهارات المستهدفة من المقرر الدراسي

المحتويات للمقرر	اسبوع الدراسة	المعارف الرئيسية	مهارات ذهنية	مهارات مهنية	مهارات عامة
Hydrocarbons	1	a1,a2,a3	b1, b2, b3		
Alcohols (mono-, di- & trihydric)	2	a1,a2,a3	b1, b2, b3	c3	d2
Mercaptans, Ethers, Thioethers.	3	a1,a2,a3	b1, b2, b3		
Aliphatic aldehydes and ketones.	3	a1,a2,a3	b1, b2, b3	c3	
Carboxylic acids & acid derivatives.	4	a1,a2,a3	b1, b2, b3	c3	
Amines, urea.	5	a1,a2,a3	b1, b2, b3	c3	
Stereochemistry & isomerism.	6	a1,a2,a3	b1, b2, b3		d2,d3
Carbohydrates (mono- & disaccharides)	7	a1,a2,a3	b1, b2, b3	c3	
Aromatic compounds: Benzene & its derivatives.	8	a1,a2,a3	b1, b2, b3		d2
Halogen compounds.	9	a1,a2,a3	b1, b2, b3		
Phenols	9,10	a1,a2,a3	b1, b2, b3	c3	
Aromatic Aldehydes & Ketones.	11,12	a1,a2,a3	b1, b2, b3	c3	d2
Aromatic carboxylic acids (mono- & dicarboxylic), Aromatic sulphonic acids.	13	a1,a2,a3	b1, b2, b3	c3	
Aromatic amines.	14	a1,a2,a3	b1, b2, b3		
Practical: Identification of simple organic compounds.	٢-١١			c1,c2, c3	d1,d3

رئيس مجلس القسم العلمي : أ.د. أحمد فوزي العاصمي

أستاذ المقرر: أحمد حامد فضة