

جامعة : المنصورة

كلية : العلوم

قسم / الكيمياء

توصيف مقرر دراسي

١- بيانات المقرر		
الرمز الكود : ك ٣٣ ٤	أسم المقرر : Chemotherapy: Environmental chemistry and pollution	المستوى : الرابع
البرنامج : الكيمياء	عدد الوحدات الدراسية : ٢ نظري : ٢ تمارين : ٠ عملي : ٠	

٢- هدف المقرر:		For students undertaking this course, the aims are to: 1 - Acquiring the student the skills of synthesizing therapeutically compounds. 2 - Acquiring the student the basic information of pollution and environmental chemistry. 3 - Acquire students the skills of using IT and communication technology and using scientific literature and preparing technical reports. 4 - Generate in students an appreciation to exhibit the sense of beauty and neatness in Good's ability in therapeutically compounds.
٣- المستهدف من التدريس المقرر:		
أ-المعلومات والمفاهيم:	a- Knowledge and Understanding : a - 1 - Define the basic concepts to find a drug to compact a particular disease. a - 2 - Explain the different classes of therapeutically compounds. a - 3 - Define the basic concepts of pollution and environmental chemistry. On completing this course, students will be able to:	
ب-المهارات الذهنية	b- Intellectual Skills: On completing this course, students will be able to:	

<p>b - 1 - Distinguish different classes of therapeutically compounds.</p> <p>b - 2 - Outline suitable methods to design and synthesize some biological active compounds.</p> <p>b - 3 - Outline suitable methods to detect water and air pollutants.</p>	
<p>c-Professional and Practical Skills: On completing this course,</p> <p>c - 1 - design and synthesize compounds that might have a desired biological activity.</p> <p>c - 2 - Change the structure of the lead compound (molecular modification) to find one that might have improved therapeutic properties or fewer side effects.</p> <p>c - 3 - Prepare technical report using scientific literature.</p> <p>students will be able to:</p>	<p>ج- المهارات المهنية الخاصة بالمقرر:</p>
<p>d-General and Transferable Skills: On completing this course,</p> <p>d - 1 - Use IT and web search engines for collecting information.</p> <p>d - 2 - Work effectively both in a team, and independently on solving organic chemistry problems.</p> <p>d - 3 - Communicate effectively with his teacher and colleagues.</p> <p>students will be able to:</p>	<p>د- المهارات العامة :</p>
<p>1- Chemotherapy: Disinfectants drugs.</p> <p>2- Approaches to the problem of finding a drug to compact a particular disease.</p> <p>3- Antibacterial agents (sulphonamides - sulphanilamide - sulphapyridine - sulphathiazole - sulphadiazine - sulphamathzine -sulphaguanidine - prontosil – prontosils).</p> <p>4- Antimalarials (plasmoquin, mepacrin proguanil - arsenical drugs).</p> <p>5- Antibiotics (thepenicillins - synthetic penicillins - cephalosporinic, streptomycin, tetracycline, chloramphenicol).</p> <p>6- Five-membered heterocycles derivatives of pyrrolidine, nitrofurans, oxazolidinediones and isoxazole, pyrazolones and pyrazolodiones.</p>	<p>٤- محتوى المقرر:</p>

7- Environmental chemistry and pollution: Some concepts and principles of Chemistry involved in environmental processes.			
8- Chemistry related to atmosphere, hydrosphere and lithosphere.			
9- Pollutants, Atmospheric pollution (Air pollutants, Chemistry involved in Green house effect, Ozone depletion, Acid rain and Photochemical smog).			
10- Air quality standards, Aquatic pollution (Aquatic pollutants, eutrophication, Chemical speciation).			
11- Techniques of monitoring air pollutants and aquatic pollutants.			
12- Methods for minimizing pollution.			
13- Treatment methods for sewage and industrial effluents.			
14- Treatment of water for domestic use.			
1 - Lectures using data show and board.		٥- أساليب التعليم والتعلم:	
2 - Home works, reports and discussion groups.			
The same as normal students, only skeletal disabilities are allowed in the Faculty of Science.		٦- أساليب التعليم والتعلم للطلاب ذوي القدرات المحدودة:	
٧- تقويم الطلاب :			
7- Student Assessment Methods		أ- الأساليب المستخدمة :	
Final exam	to assess		a1-a3, b1-b3
Oral exam	to assess		a1-a3, b1-b3
Mid-term exam	To assess		a1-a3, b1-b3
Report	to assess		d1-d3
Assessment Schedule		ب- التوقيت :	
Assessment 1	Week #final exam		Week 14

Assessment 2	Week #oral exam	Week 14
Assessment 3	Week #mid-term exam	Week 7
Assessment 4	Week #report	Week 10

Weighting of Assessments		ج- توزيع الدرجات :
Final-Term Examination	80%	
Oral Examination	10%	
Practical Examination	0%	
Semester work	5%	
Mid-term examination	5%	
Other types of assessment	0%	
Total	100%	

٨- قائمة الكتب الدراسية والمراجع :	
1 - Chemotherapy	أ- مذكرات:
2 - Pollution Chemistry	
	ب- كتب ملزمة
	ج- كتب مقترحة :
1. http://www.organic-chemistry.org/ 2. http://en.wikipedia.org/wiki/Organic_chemistry	د- دوريات علمية أو نشرات..

مصفوفة المعارف والمهارات المستهدفة من المقرر الدراسي

المحتويات للمقرر	أسبوع الدراسة	المعارف الرئيسية	مهارات ذهنية	مهارات مهنية	مهارات عامة
Chemotherapy: • Disinfectant drugs – approaches to the problem of finding a drug to compact a particular disease	1-2	a1	b1	c1	d1, d2, d3
• Antibacterial agents – sulphonamides – sulphanilamide – sulphapyridine – sulphathiazole – sulphadiazine – sulphamathzine – sulphaguanidine – prontosils. • Antimalarials – plasmoquin – mepacrin proguanil – arsenical drugs. • Antibiotics – the penicillins – synthetic penicillins.	3-6	a2	b2	c2	d1, d2, d3
Environmental Chemistry, Pollution: • Air pollution – general considerations – carbon monoxide – nitrogen oxides – hydrocarbons and photochemical oxidants – sulphur dioxides – particulates.	7-9	a3	b3	c3	d1, d2, d3
• Water pollution - general considerations – detergents – synthetic organic pesticides – oil – toxic metals – waste water treatment.	10-12	a3	b3	c3	d1, d2, d3

أستاذ المادة : د/ أحمد فكرى عبد الحق شلبي

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