

جامعة : المنصورة

كلية : العلوم

قسم / الكيمياء

توصيف مقرر دراسي

١- بيانات المقرر		
الرمز الكود : ك ٣٣٣	اسم المقرر : Petroleum and Petrochemicals	المستوى : الثالث
البرنامج : الكيمياء	عدد الوحدات الدراسية : ٣ نظري : ٢ تمارين : - عملي : ٣	

٢- هدف المقرر : For students undertaking this course, the aims are to: <ul style="list-style-type: none">Acquire the student the basic information of petroleum and petrochemicals.Acquire the student the skills of synthesizing of petrochemicals and teaching him some examples.Acquire the students the skills of dealing with scientific instruments, models, systems and tools in a safe manner, considering scientific ethics.Acquire the students the skills of IT and communication, identify roles and responsibilities, think independently, set tasks and manage time, as well as the interpersonal skills. Generate in students an appreciation to exhibit the sense of beauty and neatness in Good's ability in natural compounds.	
٣- المستهدف من التدريس المقرر :	
a- Knowledge and Understanding : On completing this course, students will be able to: a1- define the basic concepts of petroleum and petrochemical's chemistry. a2- list the different classes of petroleum products. a3- explain the different processes in petroleum chemistry.	أ-المعلومات والمفاهيم:
b- Intellectual Skills: On completing this course, students will be able to: b1- outline suitable methods to synthesize some petrochemicals. b2- elucidate the chemical structure using chemical reaction results. b3- differentiate between petroleum products and petrochemicals.	ب-المهارات الذهنية
c-Professional and Practical Skills: On completing this course, students will be able to:	ج- المهارات المهنية

<p>c1- assemble glassware into a suitable apparatus for a given organic reaction, in a safe manner.</p> <p>c2- carry out a preparation procedure, considering scientific ethics.</p> <p>c3- isolate and purify a reaction product.</p>	الخاصة بالمقرر:
<p>d-General and Transferable Skills: On completing this course, students will be able to:</p> <p>d1- use IT and web search engines for information.</p> <p>d2- work effectively both in a team, and independently, manage time and identify roles and responsibilities.</p> <p>d3- communicate and collaborate effectively with their lecturer and colleagues.</p> <p>d4- apply scientific models, systems, and tools effectively considering community ethics and traditions.</p> <p>d5- exhibit the sense of beauty and neatness in Good's ability in natural compounds.</p>	د- المهارات العامة :
<ul style="list-style-type: none"> • General idea – importance – occurrence – transportation – origin of petroleum – factors affecting transformation of petroleum • Composition of petroleum – specifications of petroleum and its products – classification of crude petroleum • Some physical aspects concerning petroleum fuels – manufacturing processes and oil refinery – separation processes • Production of motor and jet fuels – cracking – reforming – isomerisation – refining and treating processing • Motor aviation – jet and diesel fuels composition – volatility – composition – stability - corrosion • Petrochemistry <p>Practical: Organic Synthesis</p>	٤- محتوى المقرر:
<p>5.1 - Lectures.</p> <p>5.2 –Tutorial</p> <p>5.3 - Laboratory work.</p> <p>5.4 - Home works, reports and discussion groups</p>	٥- أساليب 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 :	

7- Student Assessment Methods

أ- الأساليب
المستخدمة :

Practical exam	To assess	c1-c3,d2-d5
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

Assessment Schedule

ب- التوقيت :

Assessment 1	Week #final exam	Week 14
Assessment 2	Week #oral exam	Week 14
Assessment 3	Week #practical exam	Week 12
Assessment 4	Week #mid-term exam	Week 4,8,12
Assessment 5	Week #report	Week 10

Weighting of Assessments

ج- توزيع الدرجات :

Final-Term Examination	60%
Oral Examination	10%
Practical Examination	20%
Semester work	0%
Mid-term examination	10%
Other types of assessment	0%

	Total	100%	
٨- قائمة الكتب الدراسية والمراجع :			
Petroleum Chemistry	أ- مذكرات:		
	ب- كتب ملزمة		
Text Book of Organic Chemistry, Arun Bahl and B.S. Bahl, 16 th Edition, S. Chand, 2004.	ج- كتب مقترحة :		
Organic Reaction Mechanisms, M. Gomez Gallego, M. A. Sierra, First Edition, 2004			
http://en.wikipedia.org/wiki/Organic_chemistry http://www.organic-chemistry.org/ http://www.acdlabs.com/iupac/nomenclature/	د- دوريات علمية أو نشرات..		

مصفوفة المعارف والمهارات المستهدفة من المقرر الدراسي

المحتويات للمقرر	أسبوع الدراسة	المعارف الرئيسية	مهارات ذهنية	مهارات مهنية	مهارات عامة
<ul style="list-style-type: none"> General idea – importance – occurrence – transportation – origin of petroleum – factors affecting transformation of petroleum 	1	a1, ,a3	b3		d1
<ul style="list-style-type: none"> Composition of petroleum – specifications of petroleum and its products – classification of crude petroleum 	2-3	a1, ,a3	b3		
<ul style="list-style-type: none"> Some physical aspects concerning petroleum fuels – manufacturing processes and oil refinery – separation processes 	4	a1, ,a3	b3		
<ul style="list-style-type: none"> Production of motor and jet fuels – cracking – reforming – isomerisation – refining and treating processing 	5-6	a1, ,a3	b3		d1

<ul style="list-style-type: none"> Motor aviation – jet and diesel fuels composition – volatility – composition – stability - corrosion 	7	a1, ,a3	b3		d1
<ul style="list-style-type: none"> Petrochemistry 	8-13	a1, ,a3	b3		d1
Practical: Organic Synthesis	2-11			c1,c2,c3	d2-d5

أستاذ المادة : أ.د./عثمان محمد عثمان حبيب

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