جامعة : المنصورة

كـــلية : العلوم

قسم / الكيمياء

توصيف مقرر دراسى

١- بيانات المقرر		
الرمز الكود :ك٣٤٥	**أسم المقرر :**,Colloid Chemistry Photochemistry	**المستوى : الثالث**
البرنامج: الكيمياء	**عدد الوحدات الدراسية: ٢ نظرى : ٢ تمارين: ١ عملى:-**	

٢- هدف المقرر :	**For students undertaking this course, the aims are to:** 1 - Study the chemistry of colloidal systems 2 - Study theories of formation, stabilization and properties of colloids. 3 - Study the concept of photochemistry and its laws. 4 - Study the theories and the kinetics of photochemical reactions. 5 - Study the photochemical phenomena.
٣- المستهدف من التدريس المقرر:	
أ- المعلومات والمفاهيم:	**a- Knowledge and Understanding :** a - 1 - Prepare and study colloidal systems. a - 2 - Discuss colloidal properties and its purification. a - 3 - Discuss colloids, emulsions and gels applications. a - 4 - Distinguish the photochemical reactions a - 5 - Deduce photochemical kinetics a - 6 - Discuss photochemical processes **On completing this course, students will be able to:**
ب- المهارات الذهنية	**b- Intellectual Skills: On completing this course, students will be able to:**

b - 1Distinguish between colloidal and noncolloidal systems. b - 2 - Predict stabilizing methods for colloids b - 3 -Deduce the kinetic equations of photochemical reactions. b - 4 - Predict the photochemical phenomena.	
c-Professional and Practical Skills: On completing this course, c - 1 - Thinking on forming, stabilizing and applying colloidal systems. c - 2 - Thinking independently on photochemical reaction mechanisms. c - 3 - Solving photochemistry problems **students will be able to:**	**ج- المهارات المهنية الخاصة بالمقرر:**
d-General and Transferable Skills: On completing this course, students d - 1 - Communicate and collaborate effectively with lecturer and colleagues d - 2 - Work effectively, manage and identify roles and responsibilities. d - 3 - Applying scientific models and tools effectively. **will be able to:**	**د- المهارات العامة :**
1- Classification of colloidal solutions and suspensions. 2- Preparation and purification of colloidal solutions. 3- Properties of colloidal systems. 4- Emulsions and gels 5- Applications of colloids. 6- The concept of photochemical and dark reactions. 7- The electromagnetic radiation, definition and properties. 8- Photochemical laws and quantum yield 9- Kinetics of photochemical reactions 10- Photochemical phenomena and processes.	**٤- محتوى المقرر:**
	٥- اساليب التعليم

1 - Lectures using data show and board. 2 - Solving problems and exercises. 3 - Homework , reports and discussions	**والتعلم:**
The same as normal students, only skeletal disabilities are allowed in the Faculty of Science.	**٦- أساليب التعليم والتعلم للطلاب ذوى القدرات المحدودة:**

٧- تقويم الطلاب :

أ- الأساليب المستخدمة :

7- Student Assessment Methods

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

ب- التوقيت :

Assessment Schedule

Assessment 1	**Week #final exam**	**Week 14**
Assessment 2	**Week #oral exam**	**Week 14**
Assessment 3	**Week #mid-term exam**	**Week 4,7,10**
Assessment 4	**Week #report**	Week 8,12

ج- توزيع الدرجات :

Weighting of Assessments

Final-Term Examination	**80%**
Oral Examination	**10%**
Practical Examination	**0%**

Semester work	**10%**		
Mid-term examination	**0%**		
Other types of assessment	**0%**		
Total	**100%**		

٨- قائمة الكتب الدراسية والمراجع :

1 - Course text book (colloidal chemistry , photochemistry) 2 - Photochemistry ,Goel publishing house 3 - Text book of physical chemistry,S.Glasstone	**أ- مذكرات:**
	ب- كتب ملزمة
	ج- كتب مقترحة :
	د- دوريات علمية أو نشرات..

مصفوفة المعارف والمهارات المستهدفة من المقرر الدراسى

المحتويات للمقرر	أسبوع الدراسة	المعارف الرئيسية	مهارات ذهنية	مهارات مهنية	مهارات عامة
1-Classification of colloidal solutions	1	a1	b1		
2-Preparation and purification	2	a2	b1		
3-Properties of colloids	3-4	a2	b1		
4-Emulsions and gels	5	a3	b2		
5-Application	6-7	a3	b2		

6-The concept of photochemical reactions	8	a4	b3		
7-Electromagnetic radiations	9	a4	b3		
8-Photochemical laws	10	a5	b4		
9-Kinetics of photochemical reactions	11-	a5	b4		
10-photochemical phenomena	12-13	a6	b4		

أستاذ المادة : ا.د/ حامد محمد ابو النضر

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