

جامعة : المنصورة

كلية : العلوم

قسم / الكيمياء

توصيف مقرر دراسي

| ١- بيانات المقرر | | |
|-----------------------|--|------------------|
| الرمز الكود : ك ١ ٤ ٤ | أسم المقرر: catalysis | المستوى : الرابع |
| البرنامج : الكيمياء | عدد الوحدات الدراسية: ٣ نظري : ٢ تمارين: - عملي: ٣ | |

| | |
|---|------------------------|
| ٢- هدف المقرر: | |
| 1 - Acquiring the student with the basic principle of Physical Chemistry., Catalysis, Solid state, and colloids 2 - Acquiring the student the general methods for elucidation of Catalysis, Solid state, and colloids 3 - Acquiring the student the skills of preparing Colloidal solutions and Catalysts. For students undertaking this course, the aims are to: | |
| ٣- المستهدف من التدريس المقرر: | |
| a- Knowledge and Understanding : a - The basic information about different of type catalysis, Solid state and colloids. a - The general method of preparation of catalysts and colloids On completing this course, students will be able to: | أ-المعلومات والمفاهيم: |
| b- Intellectual Skills: On completing this course, students will be able to: b - The ability to differentiate between different types of Catalysis, and colloids on The ability to recognize the different types of theories and relationship between different relations. | ب-المهارات الذهنية |
| c-Professional and Practical Skills: On completing this course, students will be able to: | ج- المهارات المهنية |

| | | | | | | | | | | |
|---|--|---|-------------------------------|-------------------|------------------|---|------------------|------------------|---|-------------------------|
| c - The ability of student to obtain and isolate the different types of Catalysis, Solid interface and colloids and to elucidate the structure of their types. | الخاصة بالمقرر: | | | | | | | | | |
| d-General and Transferable Skills: On completing this course, d - The ability of student to apply and to make theoretical background of the chemical reaction, synthesis, and ability to elucidate of the structure and understanding the mechanism of chemical reaction. students will be able to: | د- المهارات العامة : | | | | | | | | | |
| 1- Catalysis, homogeneous catalysis, heterogeneous catalysis, Kinetics, and mechanism – absolute rate of surface relations. 2- Solid state, crystal lattice, crystal structure, semiconductor, nonstiochiometric compounds, point and linear defect. 3- Collides. General properties of colloidal systems, preparation, orgin of change, Domnan equilibrium, gels and emulsions | ٤- محتوى المقرر: | | | | | | | | | |
| 1 - Class lectures using board. 2 - Electronic learning using computer. | ٥- اساليب التعليم والتعلم: | | | | | | | | | |
| 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 | | | | | | | | | | |
| <table><tr><td>Practical exam</td><td>To assess</td><td>The student practical skills.</td></tr><tr><td>Final exam</td><td>to assess</td><td>The ability of the student to acquire information and to think.</td></tr><tr><td>Oral exam</td><td>to assess</td><td>The ability of the student to speaks and discuss.</td></tr></table> | Practical exam | To assess | The student practical skills. | Final exam | to assess | The ability of the student to acquire information and to think. | Oral exam | to assess | The ability of the student to speaks and discuss. | أ- الأساليب المستخدمة : |
| Practical exam | To assess | The student practical skills. | | | | | | | | |
| Final exam | to assess | The ability of the student to acquire information and to think. | | | | | | | | |
| Oral exam | to assess | The ability of the student to speaks and discuss. | | | | | | | | |

| | | | | |
|--|----------------------------------|--|--|----------------------------|
| Mid-term exam | To assess | The student mental and scientific progress | | |
| 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 7 | | |
| Assessment 5 | Week #report | Week 5 | | |
| <i>Weighting of Assessments</i> | | | | 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 : | | | | |
| 1 - Surface colloidal and solid state chemistry | | | | أ- مذكرات: |
| 1 - Physical chemistry: BY Fried, Homeka, Blukis | | | | ب- كتب ملزمة |
| 1- Physical chemistry: BY Atkines | | | | ج- كتب مقترحة : |
| | | | | د- دوريات علمية أو نشرات.. |

مصفوفة المعارف والمهارات المستهدفة من المقرر الدراسي

| المحتويات للمقرر | أسبوع الدراسة | المعارف الرئيسية | مهارات ذهنية | مهارات مهنية | مهارات عامة |
|---|---------------|------------------|--------------|--------------|-------------|
| Acquiring the student with the basic principle of Physical Chemistry., Catalysis, Solid state, and colloids | 1,2,3,4 | 1a | b1 | c1 | d1 |
| Acquiring the student the general methods for elucidation of Catalysis, Solid state, and colloids | 5,6,7,8 | 2a | b1 | c1 | d1 |
| Acquiring the student the skills of preparing Colloidal solutions and Catalysts. | 9,10,11,12 | | | c1 | d1 |

أستاذ المادة : أ.د./ سهير عبد الحكم ابراهيم شبحه

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