

جامعة : المنصورة

كلية : العلوم

قسم / الكيمياء

توصيف مقرر دراسي

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| ١-بيانات المقرر | |
| الرمز الكود:ك ٤٣٢ | أسم المقرر: dyes chemistry |
| المستوى : الرابع | |
| البرنامج : الكيمياء | عدد الوحدات الدراسية: ٢ نظري : ٢ تمارين: ١ عملي:- |

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| For students undertaking this course, the aims are to: <ul style="list-style-type: none">• Introduce the basic information of dyes.• Study the physical and chemical properties of different types of fibers.• Study of different types of dyes.• Study of different dyeing techniques.• Acquire the students the practical skills for dyeing. Acquire the students the skills of working in groups, collaboration and communication with others. | ٢- هدف المقرر: |
| ٣- المستهدف من التدريس المقرر: | |
| a- Knowledge and Understanding : On completing this course, students will be able to: a1- define the basic concepts of dyes. a2- explain the different classes of dyes. a3- state the different processes in dyeing chemistry. | أ-المعلومات والمفاهيم: |
| b- Intellectual Skills: On completing this course, students will be able to: b1- outline suitable methods to synthesize some dyes. b2- predict a suitable dye to a certain fiber. | ب-المهارات الذهنية |
| c-Professional and Practical Skills: On completing this course, students will be able to: c1- prepare and use different types of dyes in dyeing cotton fabrics. | ج- المهارات المهنية الخاصة بالمقرر: |
| d-General and Transferable Skills: On completing this course, students will be able to: | د- المهارات العامة : |

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| <p>d1- work effectively both in a team, and independently, manage time and identify roles and responsibilities.</p> <p>d2- communicate and collaborate effectively with their lecturer and colleagues.</p> <p>d3- apply scientific models, systems, and tools effectively</p> | | | | | | | | | | |
| <p>5- Dyes and fibers: Color – photoelectric theory – complementary light.</p> <p>6- Classification of dyes (nitroso, nitro, azo, triarylmethane, xanthane, vat, indigo, anthraquinone and reactive dyes) – photographic sensetisors.</p> <p>7- Textile fibers – fiber structure – properties – identification – classification (cellulose, cotton flax, hemp jute-man-made cellulosic fibers, rayon acetate and triacetate protein, wool and silk mineral fibers) – man made fibers.</p> <p>8- Processing of textiles (purification and preliminary singeing, desizing, scouring, bleaching and mercerizing dyeing) – kinds of forces by which dye molecules are bound to the fiber.</p> <p>Practical: Applied Org. Chemistry (Natural products, and Dyes experiments)</p> | <p>٤- محتوى المقرر:</p> | | | | | | | | | |
| <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> | <p>٩- أساليب التعليم والتعلم:</p> | | | | | | | | | |
| <p>The same as normal students, only skeletal disabilities are allowed in the Faculty of Science.</p> | <p>١٠- أساليب التعليم والتعلم للطلاب ذوي القدرات المحدودة:</p> | | | | | | | | | |
| <p>١١- تقويم الطلاب :</p> | | | | | | | | | | |
| <p>7- Student Assessment Methods</p> <table border="1" data-bbox="194 1653 935 2022"> <tr> <td>Final exam</td> <td>to assess</td> <td>a1-a3, b1-b2</td> </tr> <tr> <td>Oral exam</td> <td>to assess</td> <td>a1-a3, b1-b2</td> </tr> <tr> <td>Mid-term exam</td> <td>To assess</td> <td>a1-a3, b1-b2</td> </tr> </table> | Final exam | to assess | a1-a3, b1-b2 | Oral exam | to assess | a1-a3, b1-b2 | Mid-term exam | To assess | a1-a3, b1-b2 | <p>أ- الأساليب المستخدمة :</p> |
| Final exam | to assess | a1-a3, b1-b2 | | | | | | | | |
| Oral exam | to assess | a1-a3, b1-b2 | | | | | | | | |
| Mid-term exam | To assess | a1-a3, b1-b2 | | | | | | | | |

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| Report | to assess | | | |
| 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 4,8,12 | | |
| Assessment 4 | Week #report | Week 10 | | |
| <i>Weighting of Assessments</i> | | | | ج- توزيع الدرجات : |
| Final-Term Examination | 80% | | | |
| Oral Examination | 10% | | | |
| Practical Examination | 0% | | | |
| Semester work | 0% | | | |
| Mid-term examination | 10% | | | |
| Other types of assessment | 0% | | | |
| Total | 100% | | | |
| ٨- قائمة الكتب الدراسية والمراجع : | | | | |
| Chemistry of Dyes | | | | أ- مذكرات: |
| | | | | ب- كتب ملزمة |
| Text Book of Organic Chemistry, Arun Bahl and B.S. Bahl, 16th Edition, S. Chand, 2004. | | | | ج- كتب مقترحة : |
| Fessenden & Fessenden, Organic Chemistry, Willard Grant Press, Boston, Massachusetts, 2nd Edn. (1982) | | | | |
| http://en.wikipedia.org/wiki/Organic_chemistry | | | | د- دوريات علمية أو نشرات.. |
| http://www.organic-chemistry.org/ | | | | |
| http://www.acdlabs.com/iupac/nomenclature/ | | | | |

مصنوفة المعارف والمهارات المستهدفة من المقرر الدراسي

| المحتويات للمقرر | أسبوع الدراسة | المعارف الرئيسية | مهارات ذهنية | مهارات مهنية | مهارات عامة |
|---|---------------|------------------|--------------|--------------|-------------|
| Dyes and fibers | | | | | |
| • Color – photoelectric theory – complementary light. | 1-2 | a1,a2,a3 | b1,b2 | | |
| • Classification of dyes (nitroso, nitro, azo, triarylmethane, xanthane, vat, indigo, anthraquinone and reactive dyes) – photographic sensetisors. | 3-6 | a1,a2,a3 | b1,b2 | | |
| • Textile fibers – fiber structure – properties – identification – classification (cellulose, cotton flax, hemp jute-man-made cellulosic fibers, rayon acetate and triacetate protein, wool and silk mineral fibers) – man made fibers. | 7-10 | a1,a2,a3 | b1,b2 | c1 | d1-d3 |
| • Processing of textiles (purification and preliminary singeing, desizing, scouring, bleaching and mercerizing dyeing) – kinds of forces by which dye molecules are bound to the fiber. | 11-13 | a1,a2,a3 | b1,b2 | c1 | d1-d3 |

أستاذ المادة : أ.د./عز الدين محمد راشد قنديل

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