توصيف مقرر دراسى

| ١ ــ بيانـات المقرر | | |
|---|---|---|
| الرمز الكودى : Math 301 | أسم المقرر:Biostatistics | المستوى :الثالث |
| التخصص: علوم البيئة | عدد الوحدات الدراسية:3 نظرى 2 تمارين 2 عملى 0 | |

| ٢ ــ هدف المقرر: | This course aims to:<br><br>1 - Provide the students by the different types of data and how to organize and display it.<br> 2 - Provide the students by the concepts of central tendency, dispersion and how to calculate them.<br>3 - Give the students a simple introduction in the theory of probability.<br><br>4 - Provide the students by some discrete and continuous distributions such as Binomial, Normal and t distributions<br>5 - Apply the methods of estimation and testing of hypotheses techniques. |
|---|---|
| ٣ ـ المستهدف من التدريس المقرر: | |
| أ ـ المعلومات والمفاهيم: | On completing this course, students will be able to:<br> a1- Organize and display the data as a simple/grouped frequency table according to its type.<br>a2- describe the basic probability concepts, the measures of central tendency and dispersion.<br>a3- explain the methods of estimation of the population parameters.<br>a4- describe the testing of hypotheses techniques |
| ب ـ المهارات الذهنية | On completing this course, students will be able to:<br>b1- Distinguish between the different types of data.<br>b2- Apply the statistical tables such as standard normal and t tables.<br>b3- Construct the confidence interval for the unknown population parameters<br>b4- Design the suitable test statistic for testing a statistical hypotheses about one or two population parameters |
| ج ـ المهارات المهنية الخاصة بالمقرر: | On completing this course, students will be able to:<br><br>c1 -Critically calculate the measures of central tendency and dispersion<br>c2- Design and interpret the confidence interval for the unknown population parameters<br>c3- Critically apply the testing of hypotheses techniques about |

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|---|---|
| the population parameters | |
| On completing this course, students will be able to:<br>d1- express themselves and to present their views<br>d2- Work effectively both in a group and independently.<br>  d3-    Solve problems | دـ المهارات العامة : |
| 1- Organizing and displaying data<br>2- Basic summery of statistics: measures of Central tendency and measures of dispersion<br>3- Basic probability concepts<br>4- Probability distributions: Binomial - Poisson - Normal and t<br>5- Sampling distributions and estimation of parameters for one and two Populations: Mean and Proportion.<br>6- Testing of hypotheses about parameters of one and two populations: Mean and proportion. | ٤ـ  محتوى المقرر: |
| 5 - Teaching and Learning Methods<br>5.1 : Lectures<br>5.2 : Homework | ٥ـ  اساليب التعليم والتعلم: |
| The same as normal students, only skeletal disabilities are allowed in the Faculty of Science. | ٦ـ  أساليب التعليم والتعلم للطلاب ذوى القدرات المحدودة: |
| | ٧ـ تقويم الطلاب : |

*7 - Student Assessment Methods*

| 7-1. | Semester works | to assess | a1-a4,b1-b2,c1-c2, |
|---|---|---|---|
| 7-2. | Oral  exam | to assess | d1-d3 |
| 7-3 | Final exam | to assess | a1-a4, b1-b4,c1-c4 |

أـ الأساليب المستخدمة :

Assessment Schedule

| Assessment 1 | Semester works | week | 6 |
|---|---|---|---|
| Assessment 2 | Oral exam | week | 13 |
| Assessment 3 | Final exam | week | 15 |

بـ التوقيت :

*Weighting of Assessments*

| Final-Term Examination | 90 |
|---|---|
| Oral   Examination | 10 |
| Total | 100 |

جـ توزيع الدرجات :

٨ـ قائمة الكتب الدراسية والمراجع :

| | |
|---|---|
| **أ- مذكرات:** | 6.1 Department notes aiuthorized by the department |
| **ب- كتب ملزمة** | 6.2- Daniel, W.A. Biostatistics: A foundation for analysis in the health sciences. 4th ed. New York: Wiley, 1987 |
| **ج- كتب مقترحة :** | 6.3 N.A. Hasabelnaby Elementary Biostatistics with Applications from Saudi Arabia. King Saud University, 1996. |
| **د- دوريات علمية أو نشرات..** | http://en.wikipedia.org/wiki/Biostatistics, http://www.hsph.harvard.edu/departments/biostatistics/ |

## (أ) مصفوفة المعارف والمهارات المستهدفة من المقرر الدراسى

| مسمى المقرر | **Biostatistics** |
|---|---|
| كود المقرر | **Math 112** |

| المحتويات للمقرر | اسبوع الدراسة | المعارف الرئيسية | مهارات ذهنية | مهارات مهنية | مهارات عامة |
|---|---|---|---|---|---|
| 1- Organizing and displaying data. | 1 | a1 | b1 | c1 | d3 |
| 2- Basic summery of statistics: measures of Central tendency and measures of dispersion. | 2-3 | a2 | b1 | c2 | d3 |
| 3- Basic probability concepts. | 4-5 | a2 | b2 | | d3 |
| 4- Probability distributions: Binomial - Poisson - Normal and t. | 6-8 | a2 | b2 | | d3 |
| 5- Sampling distributions and estimation of parameters for one and two Populations: Mean and Proportion. | 9-11 | a3 | b2,b3 | c2 | d1,d2,d3 |
| 6- Testing of hypotheses about parameters of one and two populations: Mean and proportion. | 12-14 | a4 | b2,b4 | c3 | d1,d2,d3 |

**أستاذ المادة: د.**

**رئيس مجلس القسم العلمى أ.د.**