

توصيف مقرر دراسي

جامعة : المنصورة
كلية : العلوم
قسم : الرياضيات

١ - بيانات المقرر		
المستوى: الثاني	اسم المقرر : Introduction to Statistics & Probabilities	كود المادة : Math 231
عدد الوحدات الدراسية: ٣ ساعة معتمدة نظري ٢ : تمارين: ٢ عملي: ٠		التخصص: إحصاء وعلوم الحاسب

For students undertaking this course, the aims are to: 1- Provide students by basic concepts of statistics and probability. Namely: ▪ displaying the data, measures of central tendency, measures of dispersion, simple regression, probability, types of random variables and some discrete probability distributions .	٢ - هدف المقرر :
٣ - المستهدف من تدريس المقرر	
a- Knowledge and Understanding On completing the course students will be able to: a1- recognize different types of data a2 – acquire the measures of central tendency, dispersion and correlation a3 - understand the basic concepts of probability, conditional probability and the related laws a4- explain different types of random variables a5- identify the probability function, moments, and moment generating function of a random variable a6- be aware of the properties of cumulative distribution function.	أ- المعلومات و المفاهيم :
b- Intellectual Skills On completing the course students will be able to: b1. differentiate between different types of data b2- distinguish between the central tendency and dispersion criteria b3- distinguish between the discrete and continuous random variables b4- apply probability laws to solve problems in probability	ب- المهارات الذهنية :
c-Professional and Practical Skills On completing the course students will be able to: c1- design simple and grouped frequency tables c2 – evaluate measures of central tendency, dispersion and correlation for different types of data c3 - solve some problems related to distributions of discrete and continuous random variables	ج- المهارات المهنية الخاصة بالمقرر :
d-General and Transferable Skills On completing the course students will be able to: d1. Think independently, set tasks and solve problems on a scientific basis. d2. use , efficiently, information and communication technology d3. Work effectively in groups.	د- المهارات العامة :
– Descriptive statistics – Measures of central tendency – Measures of dispersion – Elementary probability, combinatorial analysis, conditional probability,	٤ - محتوى المقرر :

independence and Bayes formula – Random variables (discrete and continuous), probability distribution, and moments of random variables – Cumulative distribution function and its properties – Discrete probability distributions	
1- Lectures 2- Tutorial classes	٥- أساليب التعليم و التعلم
The same as normal students, only skeletal disabilities are allowed in the faculty of science.	٦- أساليب التعليم و التعلم للطلاب ذوي القدرات المحدودة
٧- تقويم الطلاب :	
1- Oral exam to assess a1- a6, b1-b4,d1- d3 2- Final exam to assess a1- a6, b1-b4, c1-c3 3- Mid-Term Examination to assess a1- a4, b1-b3, c1-c3	أ- الأساليب المستخدمة
1- Oral week 15 2- Final exam week 15 3- Mid-Term Examination week 7	ب- التوقيت
- Mid-Term Examination 10 % - Final-Term Examination 80% - Oral Examination 10% - Practical Examination 0% Total 100%	ج- توزيع الدرجات
٨- قائمة الكتب الدراسية و المراجع :	
Department notes in	أ- المذكرات
Theory and problems in statistic (Schaum series)	ب- الكتب ملزمة
Introduction to mathematical statistics (Erwin Kreyszing)	ج- كتب مقترحة
http://en.wikipedia.org/wiki/Dynamics	د- دوريات علمية أو نشرات

(أ) مصفوفة المعارف والمهارات المستهدفة من المقرر الدراسي

المحتويات للمقرر	اسبوع الدراسة	المعارف الرئيسية	مهارات ذهنية	مهارات مهنية	مهارات عامة
Descriptive statistics	1	a1	b1	c1	d1
Measure of central tendency	2-3	a2	b2	c2	d1, d3
Measures of dispersion	4-5	a2	b2	c2	d1, d3
Elementary probability, combinatorial analysis, conditional probability, independence and Bayes formula	6-8	a3, a4	b3	c3	d1, d3
Random variables, probability distribution, and moments of random variables	9-10	a4-a5	b4	c3	d1, d3
Cumulative distribution function and its properties	11-12	a5	b4		d1, d3
Discrete probability distribution	13-14	a6	b4	c3	d1,d2

أستاذ المادة : أ.د. محمود طه ياسين
رئيس مجلس القسم العلمي : أ.د. مجدى إلياس فارس