MATH 119 Essentials of Statistics SPRING 2013

OSCAR J. HERNANDEZ ROOM: 313B CRN:20290 Time 9:45-11:50 AM
CRN:20291 Time 12:40-2:45 PM

Text/Author: Essentials of Statistics, 4th Edition; Mario F.Triola

CHAPTER	CONTENT	TENTATIVE DATES
ONE	Introduction to Statistics	01-14 SEC: 1.1-1.4
TWO	Summarizing and Graphing Data	01-16 SEC: 2.1-2.2 01-23 SEC: 2.3-2.4
THREE	Statistics for Describing, Exploring and Comparing data	01-28 SEC: 3.1-3.2 01-30 SEC: 3.3-3.4
FOUR	Probability	02-04 SEC: 4.1-4.2 02-06 SEC: 4.3-4.4 02-11 SEC: 4.5-4.6
TEST # 1	**CHAPTERS 1-4**	**February -13- 2013**
FIVE	Probability Distributions	02-20 SEC: 5.1-5.2 02-25 SEC: 5.3-5.4
SIX	Normal Probability Distributions	02-27 SEC: 6.1-6.2 03-04 SEC: 6.3-6.4 03-06 SEC: 6.5-6.6
SEVEN	Estimates and Sample Sizes	03-11 SEC: 7.1-7.2 03-13 SEC: 7.3-7.4 03-18 SEC: 7.5
TEST # 2	**CHAPTERS 5-7**	**March -20 - 2013**
EIGHT	Hypothesis Testing	03-25 SEC: 8.1-8.2 03-27 SEC: 8.3-8.4 04-08 SEC: 8.5-8.6
NINE	Inferences from two samples	04-10 SEC: 9.1-9.2 04-15 SEC: 9.3-9.4
TEST # 3	**CHAPTERS 8-9**	**April -17-2013**
TEN	Correlation and Regression	04-22 SEC: 10.1-10.2 04-24 SEC: 10.3
ELEVEN	Multinomial Experiments and Contingency Tables, Analysis of Variance	04-29 SEC: 11.1-11.2 05-01 SEC: 11.3 -11.4
FINAL EXAM	**CHAPTERS 2-11**	**May 08, 2013**

Homework (MATHXL) will be assigned at every class meeting.

Attendance is mandatory and is also a factor towards the grade (Maximum 2 absences are allowed)

No Make-up tests will be given. No cell phones, eating and drinking, reading other than class materials.

General Information:

Instructor: Oscar J. Hernandez	Text/Author Essentials of Statistics, 4th Edition; Mario F. Triola
e-mail: **oscar.hernandez@imperial.edu** Telephone: 760-355-5739/6739	Office hours: M,W: 12:00-12:30 PM T,TH: 1:30- 3:00 PM Room 2767-1
Class Days: M,W	Credit Units:4
Room 313B	Class code: 20290 and 20291

Student Learning Outcome: Identify, compare, and contrast two articles that include both descriptive and inferential statistics on the same research topic.

Course Description:

Graphical representation of statistical data, calculations and uses of various averages, measures of variability, introduction to probability distributions, confident intervals, sample size determination, hypothesis testing, Anova Chi-square and regression analysis.

Course Objectives: Through various activities and assessments, during the semester students will:

1. Distinguish various ways of organizing, displaying, and measuring data

2. Derive the numerical relationship that exist between bivariate data sets

3. Demonstrate an understanding of the theory of probability and proficiency in solving problems of this nature.

4. Compute and interpret expected values and variance, and learn about distributions for discrete random variables.

5. Compute and interpret expected values and variance, and learn about the normal distribution for continuous random variables.

6. Examine the joint probability structure of two or more random variable and understand the limiting behavior of the sum of independent random variables as the number of samples become larger.

7. Use the various types of distributions that are derived from the normal distribution.

8. Calculate and interpret confidence intervals for a population mean to show how probability connects to this type of statistical inference.

9. Use hypothesis testing as a formal means of distinguishing between probability distributions on the basis of random variables generated from one of the distributions.

10. Compare the means of the data from experiments involving more than two samples.

11. Fit a straight line to the given data in graphical form.

12. Make use of Chi-square distributions to analyze counts.

Student Learning Outcome	**Assessment Tool** (e.g., exam, rubric, portfolio)
Identify, compare, and contrast two articles that include both descriptive and inferential statistics on the same research topic.	Project + Rubric
Students will apply their knowledge of statistical inference to conduct formal significance tests concerning single populations.	Technology assignment (rubric pending)
Students will demonstrate their knowledge of basic descriptive statistics.	Embedded questions on unit exam (rubric pending)
Students will apply techniques of linear modeling to explore the relationship between two numerical variables.	Technology assignment (rubric pending)

Prerequisite: Math 090 with a grade of "C" or better.

Recommended preparation; English 101 or English 111.

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible.

DSP&S
Room 2117
Health Sciences Building
(760) 355-6312

Dropping: You may be dropped from this class if you miss the first day or if you miss three or more class sessions total. The last day to drop this class is **April 13, 2013.** After that day, I must give you a letter grade. It is your responsibility to drop, not mine.

Grading:

Homework	50 points
Student Learning Outcome Project (TEAM PROJECT)	50 points
THREE TESTS (3)	100 points each
Final Exam	200 points
TOTAL POINTS	600 points

After all of your scores have been totaled, final grades will be assigned as follows:

90 % - 100 %	**A**
80 % - 89 %	**B**
70 % - 79 %	**C**
60 % - 69 %	**D**
BELOW 60 %	**F**