## LINCOLN UNIVERSITY

Spring 2011
Mondays and Wednesdays 3:30 pm - 4:45 pm

## COURSE:

INSTRUCTOR:
OFFICE HOURS:
TEXT:

TOOLS:

BA 45-STATISTICS - 3 units
Dr. Mikhail Brodsky, president@lincolnuca.edu, 510-208-2803
Mon., Wed.: 3:00 pm - 3:30 pm
Statistics by David Freedman, Robert Pisani, and Roger Purves Forth (or third) edition, Norton and Co. ISBN-10: 0393929728, ISBN-13: 978-0393929720

Students will be required to use a simple calculator.

## CATALOG DESCRIPTION:

This course is designed for both the business major and for the non-business student without previous knowledge of statistics. Emphasis is on descriptive statistics and inferential statistics with relevant applications to solving problems, hypothesis testing and decision making. Important statistical models and distributions will be discussed (3 units). Prerequisite: Math 10 or Math 15.

## LEARNING OBJECTIVES:

This class is designed for those who want to know how to extract meaningful information from numbers, or how to make interpretation of data from newspapers, or how to gamble on a roulette table, or how to play on stock market, or just how to choose a bride or groom. Business decision-making will be really easy after it. The class does not require knowledge of any complicated mathematical subject, but requires common sense and practical logic. The students will learn the basic concepts and techniques of business statistics and probability, and learn how to apply them. The students will also create mathematical models and build a solid foundation in the principles of statistical thinking using case study and example driven discussions of all basic business statistics topics.

## INSTRUCTIONAL METHODS:

Lecture method is used in combination with the practical use of a calculator and special charts to answer application questions in statistics. The emphasis will be on learning by solving problems. Every student is welcome to participate in intensive classroom activities. Reading, writing, and problem solving assignments will be made throughout the course. Home works will be given and solved but not graded.

## REQUIREMENTS:

All students are required to attend the class. Continuous assessment is emphasized. Students must complete all assignments and take mid-term exam and final exam ON THE DATES DUE. The tests are open book but plagiarism from other students will result in the grade " $F$ ". No computers or cellular phones will be allowed to use during classes or tests.

## GRADING:

Classroom activities every week $10 \%$
Mid-term exam ninth week $40 \%$
Final exam as scheduled $50 \%$
Grades will be calculated "on the curve" to be at least $\mathrm{C}(63 \%)$ average for the class. $91 \%$ and above of total is A, $86-90 \%$ is A-, $81-85 \%$ is $\mathrm{B}+, 76-80 \%$ is B, $71-75 \%$ is $\mathrm{B}-, 66-70 \%$ is $\mathrm{C}+$, $61-65 \%$ is C, $56-60 \%$ is $\mathrm{C}-, 46-55 \%$ is D.

## SPRING 2011 SCHEDULE OF TOPICS

Topics
$1(1 / 19,24)$
$2(1 / 26,31)$
$3(2 / 2,7)$
$4(2 / 9,14)$
$5(2 / 16,23,28)$
$6(3 / 2,7)$
$7(3 / 9,14)$
$8(3 / 28,30)$
$9(4 / 4,6)$
$10(4 / 11,13)$
$11(4 / 18,20)$
$12(4 / 25)$
$13(4 / 27)$
$14(5 / 2,4)$
$15(5 / 9)$

Introduction to Statistics, Variables, Scales

Descriptive Statistics
Continue Descriptive Statistics
Correlation and Regression

Practice Midterm and Solutions

Probability and Random Variables
Chance Variability and Box Model
Box Model and Sampling
Sampling and Confidence Intervals
Accuracy of Averages and Errors
Test of Significance
Practice Final and Solutions
FINAL EXAM

Continue Variables Representation and Scales

MIDTERM EXAM (March 9) and Solutions

Ch. 26, 27

## Chapters

Ch. 1, 2

Ch. 1, 2

Ch. 3, 4

Ch. 5-7

Ch. 8, 9
Ch. 1-11

Ch. 1-11
Ch. 13-15

Ch. 16-18

Ch.18-20

Ch. 21, 22
Ch. 23, 24

Ch. 13-27
Ch. 13-27

This schedule may be changed during the semester if necessary.

