MBA 600.01: ORGANIZATIONAL BEHAVIOR
William L. Tullar
Fall Semester 2006

COURSE OBJECTIVES: To provide students with some fundamental understanding of the application of statistics to business problems.

CATALOG DESCRIPTION: Statistical methods with applications in business and economics; descriptive statistics, probability, sampling, distributions, estimation, and hypothesis testing. (1.5; 1.5)


COURSE REQUIREMENTS: MBA 600 is presented by lecture interspersed with problems. Students must bring their laptop computers to EVERY class. You will do problems in class and problems for homework. You may consult fellow students as you work through problems in class, however your homework must be exclusively your own work.

PERFORMANCE EVALUATION:
   Final Test ......................... 30%
   In Class Work .................... 20%
   Homework .......................... 50%

SUGGESTED METHOD TO WORK THROUGH COURSE MATERIALS:
   Read the chapter, underline, and make notes. Try to do some of the problems in each chapter. Write down questions that occur to you and ask them in class. Make yourself a card with the definitions of each of the statistical terms on it. Add to those definitions as your knowledge of them deepens.

CONTACT: If you have questions or problems, the best way to contact me is by email. While I sometimes don’t answer phone messages for a day or two, I check my email several times each day.
LEARNING OUTCOMES:

1. The student will explain how statistics may be used to as a warrant for certain positions in an argument.
2. The student will explain and demonstrate how data sets must be cleaned before statistical analysis can be done on them.
3. The student will explain the basic principles of making tables and charts so as to facilitate the best presentation of data.
4. The student will explain the basic idea behind covariance and its role in the Pearson product moment correlation.
5. The student will explain how statistics can be used to mine data in large data sets.
6. The student will explain the basic concept of sampling, distinguishing between random sampling, convenience sampling, and stratified sampling.
7. The student will draw and explain the normal distribution, showing where the mean and median would fall, and explaining the concepts of skewness and kurtosis.
8. The student will explain and demonstrate how to construct a 95% and 99% confidence interval given a mean and standard deviation.
9. The student will explain how hypothesis testing works, including the concepts of null and alternative hypotheses as part of the explanation.
10. The student will explain how to interpret the outcome of a t test.
THE SCHEDULE

CLASS #1: 1ST HALF: How to argue with statistics; Data Cleanup
8/15/06 2nd HALF: Graphs and tables

Reading Assignment: Albright, Winston, & Zappe ch. 1, 2
In Class Exercises: P02_01(Beta Technologies), P02_02 (proportion of defective items), Lydia Pinkham
Homework: Data Cleanup exercise

CLASS #2: 1st HALF: Descriptive Statistics
8/22/06 2nd HALF: Covariance and Correlation

Reading Assignment: Albright, Winston, & Zappe ch. 3
In Class Exercises: Lydia Pinkham; Ookabolaponga
Homework: Problem set on B School Ratings

CLASS #3: 1st HALF: Data Mining
8/29/06 2nd HALF: Probability and Probability Distributions

Reading Assignment: Albright, Winston, & Zappe Ch. 4, 5
In Class Exercises: Direct Marketing Data, Invest
Homework: Problems 1, 2, & 3 on p. 203

CLASS #4: 1st HALF: Normal distributions
9/05/06 2nd HALF: Binomial & other distributions

Reading Assignment: Albright, Winston, & Zappe Ch. 6
In Class Exercise: Z scores, Normal Function Calculations, Basketball
Homework: Problems 3, 7, 9 p. 266 & 19, 23 on pp. 281-2

CLASS #5: 1st HALF: Sampling
9/12/06 2nd HALF: Sampling Distributions

Reading Assignment: Albright, Winston, & Zappe Ch. 8
In Class Exercise: Accounts Receivable, Stratified Sampling by Sears
Homework: Problems 31, 33 p. 408
CLASS #6: 1st HALF: Confidence interval estimation
9/19/06  2nd HALF: Hypothesis testing

Reading Assignment: Albright, Winston, & Zappe  Ch. 9 (421-434; 446-460), 10 (488-520)

In Class Exercises: Supermarket Check-out, Differences between treadmill motors
Homework: Problems 23, 25 p. 461; 11, 15 p. 520-1

CLASS #7: 1st HALF: Overview
9/26/06  2nd HALF: Test