

Course Number: **BUSN 5760**
Course Title: **Applied Business Statistics**
Term: **Summer 2008**

Instructor: **Dr. A. Awosanya**
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1. Course Description:

The student examines the application of statistical analysis, hypothesis testing, and regression analysis in business decision making. The course should focus on the utilization of statistical methods as applied to business problem and operations.

2. Incoming Competency of Student

- a. Competent in applying effective speaking and writing principles and techniques appropriate to the study of statistics.
- b. Competent in applying the skills of critical thinking (knowledge comprehension, application, analysis, synthesis and evaluation) to solve problems and support statements of beliefs and opinions related to statistical analysis.

3. Course Statement of Objectives:

- a. Explain data, measurement and statistics, and to distinguish between descriptive statistics and statistical inference.
- b. Demonstrate how to summarize qualitative and quantitative data using frequency tables, bar graphs, pie charts and histograms.
- c. Evaluate measures of location and dispersion using mean, mode, median, percentiles, range, variance and standard deviation.
- d. Apply computer simulations to demonstrate how statistical tools and methods are used in business and social problem solving.
- e. Explain the concept of probability, experiments, hypothesis testing, regression, correlation, and multicollinearity.

4. Tentative Class Schedule, Course Outline and Assigned Readings:

Date	Chapters/Topics
Week 1	Chapter 1-Data, Measurement, and Statistics
Week 2	Chapters 2/3 -Descriptive Statistics
Week 3	Exam #1 Chapters 1-3 Review of Exam #1

Week 4	Chapters 4/5-Introduction to Probability
Week 5	Chapter 6/7/8-Continuous Probability Distributions
Week 6	Mid-term Exam Chapters 4-8 Review of Mid-Term
Week 7	Chapters 9/10-Hypothesis Testing/Statistical Inference
Week 8	Chapter 11/12-Test of Goodness of Fit /Linear Regression
Week 9	Final Examination-Chapters 9-12

Homework

Homework assignments are a central part of the course. Statistics can best be learned by doing, and the homework problems are designed to complement work done in class. Homework for each chapter will be graded. Many students are uncomfortable with the topic of statistics. Accordingly, a significant amount of class time will be spent each session working through examples of the techniques under study. Homework assignments will be reviewed each week in class to facilitate learning. Practice reinforces knowledge. This course seeks to provide an understanding and a high degree of comfort with statistical applications. All home assignments must be word processed and saved on a computer diskette. A hard copy will be due as scheduled.

Periodically, additional readings from the Wall Street Journal, Harvard Business Review and other refereed journals will be assigned. All reading assignments must be completed before coming to class. All class assignments are required and due as scheduled. Computer literacy is an integral part of this course and computer applications and simulations will be demonstrated when appropriate.

Other: Calculator with square root function, graph paper, straight edge. Access to a computer with Microsoft Excel will be helpful.

5. Required Text

Anderson, Sweeney and Williams, *Essential of Statistics for Business and Economics, 5th. Ed.* Thomson, ISBN 0-324-56860-6.

6. Supplemental Readings

7. Visual Aids

8. Course Requirements:

The course is designed as a hands-on experience; therefore, your attendance is highly encouraged. Class participation will be graded.

Your grade will be computed as follows:

Class Participation	10%	A.....96-100
Homework	10%	A-.....90-95
First Exam	25%	B+.....87-89
Mid-term Exam	25%	B.....84-86
Final Exam	30%	B-.....80-83
		C.....70-79
		F.....Below 70

Note Carefully: There will be no **make up** examinations. See the instructor, if there are extenuating circumstances. If you need additional assistance with the course material, please see the instructor before the scheduled examination. The examination must be completed in the maximum time allowed. The time requirement is an integral part of the examination. Students are expected to follow the instructions.

9. Research Requirement

10. A Word on Graduate Writing:

Each student must demonstrate proficiency in the use of the English language in the research paper submitted for this course. Grammatical errors, spelling errors, and writing that do not express ideas clearly will affect your final grade. Students are advised to use The Publication Manual of the Psychological Association (Fifth Edition) for form, style and general writing principles in the preparation of research paper. Students are instructed to use the Webster University **PASSPORTS** library at <http://library.websteruniv.edu/> for research papers to be submitted for this course.

11. CHEATING/PLAGARISM POLICY:

Students who are discovered cheating or committing plagiarism may be awarded a failing grade for the course, and may be subject to dismissal or further discipline.

Webster University strives to be a center of academic excellence. As part of our Statement of Ethics, the University strives to preserve academic honor and integrity by repudiating all forms of academic and intellectual dishonesty, including cheating, plagiarism and all other forms of academic dishonesty. Academic Honesty is unacceptable and is subject to disciplinary response.

Defining Plagiarism: “You plagiarize when, intentionally or not, you use someone else’s words or ideas but fail to give that person credit. You plagiarize even when you do credit the author but use his exact words without indicating with quotation marks or block indentation. You also plagiarize when you use words so close to those in your source, that if you placed your work next to that source, you would see that you could not have written what you did without the source at your elbow.” (Booth, Wayne C., Colomb, Gregory G., & Williams, Joseph M. (1995). *The Craft of Research*. Chicago, IL: The University of Chicago Press.)

ATTENDANCE POLICY:

The university reserves the right to drop students who do not attend class the first week of the term/semester. Students are expected to attend all class sessions of every course. In the case of unavoidable absence, the student must contact the instructor. The student is subject to appropriate academic penalty for incomplete or unacceptable makeup work, or for excessive or unexcused absences. Generally, a student who misses more than one four-hour course period (per course) without a documented military or medical excuse and advanced permission of the instructor should withdraw from the class.

ABSENCE POLICY:

If a student is absent, the instructor is to assign makeup work to cover the materials presented that week.

If a student has two absences, the instructor has the option to lower the student's grade one letter grade and to inform the student of the action.

If a student has three absences, the instructor has the option to assign a grade of F and to inform the student of the action. It is the student's responsibility to withdraw from the course.

When the instructor chooses to award a grade of I (Incomplete) for three or four absences, the student must provide acceptable documentation to verify that the absences were unavoidable (e.g. – illness, work conflict, military temporary duty).

Americans with Disabilities (ADA):

If you have an ADA qualifying disability, you must notify the Webster University office and your instructor at the beginning of the term of any special needs or equipment you may need to accomplish the requirements of the course. You will need to provide your diagnosis with its suggested request for remedy to the Center Director

Bibliography:

1. Babbie, Earl, *The Practice of Social Research*, Wadsworth Publishing 1998.
 2. Evans, James R., *Creative Thinking: In the Decision and Management Sciences*, South-Western Publishing 1991.
 3. Daniel, Wayne W., "Statistical Significance versus Practical Significance," *Science Education*, 1977. [A Classic]
 4. Gibbons, Jean D., and John W. Pratt, "*P-Values: Interpretation and Methodology*." *The American Statistician*, 1975. [A Classic]
 5. Good, I. J., "What are Degrees of Freedom?" *American Statistician*, 1973. [A Classic]
 6. Gossett, W. S., "*The Probable Error of a Mean*," *Biometrika*, 1908. [A Classic]
 7. Kuhn, Thomas S., *The Structure of Scientific Revolutions*, (Chicago, 1995).
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