

BUAD 300: Statistical Analysis for Business and Economics (December 2009)

Course Catalog Description:

A study of the techniques and tools used in analyzing business and economic data with equal emphasis on interpretation of results and estimation techniques. Simple and multiple regression, non-parametric tests, analysis of variance, and surveying are discussed although topics will vary depending upon students' needs. Use of computer software for statistical analysis is included.

General Course Objectives:

The general goals for this course include:

- 1) To familiarize the student with some statistical methods for analyzing business data.
- 2) To enable the students to make analytical decisions based upon statistical analysis.
- 3) To familiarize the student with the use of statistical software in pursuit of the two goals above.
- 4) To familiarize the student with proper presentation techniques of quantitative analyses expected in the business world.
- 5) To familiarize the student with ethical obligations of statistical analysis and presentation.

Specific Course Objectives:

Specific course objectives include demonstration of the following through various statistical analyses:

- 1) Through reinforcement of material from ECON 200, students will demonstrate proficiency in computing confidence intervals, and parametric testing of hypotheses.
- 2) Students will demonstrate proper construction and interpretation of linear regression models.
- 3) Students will demonstrate knowledge of the problems caused by collinearity and correlated errors associated with interpretation of linear regression.
- 4) Students will demonstrate hypothesis testing through nonparametric methods.
- 5) Students will demonstrate the application of elementary time-series forecasting techniques.
- 6) Students will demonstrate proper presentation style for quantitative statistical projects including (a) proper statements of hypotheses, (b) review of the data used for testing the hypotheses, (c) review of the statistical methods used to test the hypotheses, and (d) properly drawn conclusions based upon probability inferences. This will be demonstrated through both written projects and oral presentations that meet the department's expectations for communication.