THE GEORGE WASHINGTON UNIVERSITY
Department of Statistics

Introduction to Business and Economic Statistics
Statistics 1051, Section 10 – Fall 2015

SYLLABUS

Instructor: Dr. Joshua Landon
Office: Rome Hall, Room 652
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Office hours: 1:00-2:00 p.m. on Wednesdays, and by appointment

Lecture: M & W 11:10 a.m. – 12:25 p.m., Funger Hall, Room 103

Textbook: Statistics for Business and Economics, 12th edition, by McClave, Benson and Sincich

Course Objectives: This is an introductory course in statistics aimed at students that have backgrounds in business or economics. We will cover chapters 1-7 and maybe 11 from the textbook. The main topics to be covered include: numerical measures of central tendency and variability, frequency distributions & graphical presentations, probability, random variables, sampling distributions, estimation, confidence intervals, and hypothesis testing etc. If time permits, an introduction to simple linear regression will also be covered.

Note: Please note that Stat 1051, 1053 and 1111 are related in their subject matter, and credit for only one of them may be applied toward a degree.

Course Outline:

- Descriptive Statistics
- Probability
- Random Variables
- Sampling Distributions
- Confidence Intervals
- Hypothesis Tests
- Simple Linear Regression
Learning

As a result of completing this course, students will be able to:

- Use graphical and numerical methods to summarize data.
- Calculate probabilities of events given assumptions on the population.
- Use the binomial and normal distributions to calculate probabilities.
- Construct confidence intervals and carry out hypothesis tests to make inference about population parameters.

Homework: Homework will be assigned in class but will not be graded. You should do all the assigned exercises to make sure that you understand the covered material and to prepare for the exams.

Quizzes: There will be a quiz at the end of each chapter of the textbook. These quizzes will be closed book but a sheet with formulas and the use of a calculator will be allowed.

Data Analysis Project: Towards the end of the semester, you will be asked to apply the techniques learned in the course to analyze real data.

Exams: There will be four quizzes and a final examination in this course. They will be closed book but a sheet with formulas and the use of a calculator will be allowed.

Grading: Your final grade will be determined by the following weighted average:

- Quizzes 60%
- Data analysis project 10%
- Final 30%.