

Boston College
Department of Economics
EC151.04 Statistics for Business and Economics
Spring 2010
MWF 11:00 - 11:50
Location: Campion 231

Instructor: Anna Blank
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Office Hours: Mon 1:30-3:00

Text: Statistics for Business and Economics (6th edition), Newbold, Carlson, Thorne.

Course Objective:

This course is designed to provide an introduction to the basic level of statistic analysis. It will explore the essential tools of statistics theory and show you how to apply these tools to the analysis of practical problems. We will study the description of data in graphical and numerical ways, the probability theory and probability distributions. We will also discuss how to make statistical inference from hypothesis testing, how to capture quantitatively the relationship between two random variables. At the end of this course, you are expected to get a basic idea about extracting the analytic information from a "raw" data set and making the well-founded conclusions.

Prior knowledge in mathematics is not required although some algebraic computation may be necessary. Mathematical tools are introduced whenever they are needed. Note that we will cover a fair amount of material in a very limited amount of time. Reading every chapter carefully covering the topics discussed in class is highly recommended. The assigned homework questions will help you review the essential points of each topic and keep up with the materials covered in the class.

Course Structure:

Usually, I will go over the assigned problems as well as cover new material every class. You will have quizzes once a week to help you keep up with the work and to help me understand group progress. In addition to midterms and quizzes, you will have computer projects which give you a chance to analyze and make conclusions based on the "real-life" data.

I would highly advise you to come to each class although I will not keep attendance. I will assign homework problems each week which will be reviewed in class but will not be collected. Most of the homework questions will come from the textbook. Textbook exercises provide you with a good sample of midterms and final exam questions. If something is unclear, feel free to stop me at any point to ensure that you understand the material before we move on.

Grading:

1. Quizzes. There will be up to 10 quizzes (generally, each Friday). Each quiz is 3 points maximum. Seven best results will be counted in the final grade. So, 21 points total.
2. Computer exercises, 15 points.
3. Two midterms, 17 points each.
4. Final exam, 30 points.

Policies for late work, missed exams, quizzes, etc.:

I will announce due dates for computer assignments. I will accept late work if you have contacted me before the due date to explain why you cannot complete the work on time. You will have three extra quizzes, so I assume that even if you miss a quiz, you do not lose any points. I try not to offer makeup exams. If you miss an exam for a legitimate reason, I will simply shift the weight of the missed exam onto subsequent exams. However, there are ways to obtain a makeup exam.

For athletes: if you must miss the exam because of traveling for athletic competitions, you will be offered the chance (which you can decline) to make up the exam **AT AN EARLIER DATE**.

For everyone: if extreme circumstances cause you to miss an exam, you will be offered a makeup exam if you have a signed letter from the dean explaining the circumstances. Note that you still must inform me of the reason for missing the exam **AHEAD OF TIME**.

Academic Integrity: You are encouraged to work together on homework (though you must turn in your own work) and to study together for exams. However, working together on exams is a violation of academic integrity (as is misinforming me about the reason for a missed exam or late homework). Please familiarize yourself with the Academic Integrity Section of the Boston College Catalog (35-36) or online at <http://www.bc.edu/integrity>.

If you have a disability and will be requesting accommodations for this course, please register with either Kathy Duggan (Kathleen.duggan@bc.edu) Associate Director, Academic Support Services, the Connors Family Learning Center (learning disabilities and ADHD) or Suzy Conway (suzy.conway@bc.edu), Assistant Dean for Students with Disabilities (all other disabilities). Advance notice and appropriate documentation are required for accommodations.

Tentative Schedule:

Topics	Chapter
Descriptive Statistics	2, 3
Probability Theory Bayes' Theorem	4
Concept of a Probability Distribution: Discrete	5.1, 5.2, 5.3, 6.1, 6.2
Concept of a Probability Distribution: Continuous	
Probability Distributions: Binomial, Poisson, Normal	5.4, 5.6, 6.3, 6.4
MIDTERM: February 22	2-5
Sampling, Confidence Intervals, Sample Size, Proportions	7,8,9
"t" distribution	7,8,9
Hypothesis Testing (Single population)	10
MIDTERM: March 31	6-8
Hypothesis Testing (Two population parameters)	11
Chi-Square Distribution ANOVA	16, 17.1, 17.2
Simple Regression	12
FINAL:	All covered chapters