

Boston College
EC151- Statistics for Business and Economics
Frank Georges

Department of Economics
Fall, 2009
Monday, Wednesday: 1:00 pm

Text: Statistics for Business and Economics (6th edition,) Newbold, Carlson, Thorne (BC edition- Prentice Hall)

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Office Hours: Monday 11:00-12:15 Tuesday: 1:00-2:30

If you cannot meet me at any of these times, please make an appointment to meet me. The ADC (the Academic Development Center in O'Neill) also has tutors available for you to consult.

Course Structure:

The course will consist of problem review and lecture. Usually, I will go over assigned problems as well as cover new material every class. It is important to note that we will be covering a fair amount of material in a limited amount of time. In "doing" Statistics, a considerable amount of computation is required (so buy a good financial calculator). A statistics textbook is not a novel so be prepared with paper and pen to figure out what the authors are trying to explain. Much of this calculation is rather mindless and best suited for the computer. In this class, these mindless tasks will be minimized by learning the use of computer packages (such as SPSS, Excel). In addition to tests, you will have at least two computer projects so that you will be required to learn a statistical package. These projects will also give you a chance to present and write up your conclusions from analyzing some "real" world data so that you can appreciate how a manager would use statistical information to make decisions. In general, Statistics is a subject that is best learned at the point of a pencil and taken a little bit at a time. You cannot read a Statistics textbook like a novel or a newspaper. It takes a fair amount of time and effort with pen and paper at your side.

I would highly advise you to make class although I will not keep attendance. There will be quizzes, computer assignments and two hourly exams during the semester that will help you keep up with the work. There will also be assigned homework problems which will be reviewed in class but will **not** be collected. I trust that you are responsible enough to keep current with all assigned readings and problems. If something is unclear, feel free to stop me at any point to ensure that you understand the material before we move on. The only dumb questions are those not asked (and you'd be surprised how grateful the rest of the class is when a "dumb" question is asked). Your work on all submitted assignments (exams, quizzes, case studies) is expected to be your own. I encourage you to work together on homework problem sets but do not simply copy the answers from someone else. Be sure you are familiar with the sections on "Academic Integrity" in the Boston College Catalog (pp. 36-37) or online at BCInfo, (A-Z index, Academic 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.

Course Objective:

You will not be a statistician at the end of this course. But you will have an appreciation of the power as well as the limitations of statistical thinking. Some of you will find Statistics to be interesting- even fun- some of you won't; most will find it somewhere between tolerable and at least entertaining. Regardless, a proper dose of Statistics will be invaluable in your future as a student and a businessperson. Sure you can get through life without it- but the same can be said for literacy, not to mention other "collegiate" activities, such as going to a BC football game.

What you will not be expected to do is memorize formulas although some concepts will come second nature to you. I will try and give you examples from Economics, Finance, Accounting and Marketing as well various stories from my own research. Hopefully this applications approach will make you feel that this material is not just merely a theoretical nightmare or another educational hoop that needs to be jumped through.

Finally, Statistics involves a type of thinking that needs to be developed if a person hopes to have a career where decisions have to be made on the basis of analyzing data. Hence, it is utilized in every aspect of economics.

Grading Procedure:

- 1) There will be quizzes as well as case studies that will account for 20% of the final grade
- 2) Two hourly exams: 40 % of the final grade
- 3) Cumulative final exam: 40% of the final grade

There will be no make-up exams unless you present a verifiable medical reason (a note from your doctor) or a letter from the Dean. If you miss an exam and do not have a verifiable reason, you will get a 0% for that exam.

Tentative Schedule		
Date	Topics	Text Chapter
Sep. 9, 11, 14, 16	Descriptive Statistics	2, 3
Sep. 18, 21, 23, 25	Probability, Bayes' Theorem	4
Sep. 28, 30, Oct 2, 5,	Concept of a Probability Distribution: Discrete & Continuous	5.1, 5.2, 5.3, 6.1, 6.2
Oct. 7, 9, 14, 16	Probability Distributions: Binomial, Poisson, Normal	5.4, 5.6, 6.3, 6.4
October 19	MIDTERM 1	
Oct.21, 23, 26, 28, 30, Nov. 2	Sampling, Confidence Intervals, Sample Size, Proportions, "t" distribution	7, 8, 9
Nov. 4, 6, 9 Nov. 11, 13	Hypothesis Testing (Single population)	10
November 16	MIDTERM 2	
Nov. 18, 20, 23	Hypothesis Testing (Two population parameters)	11
Nov. 30, Dec. 2, 4	Chi-Square Distribution, ANOVA	16, 17.1, 17.2
Dec. 7, 9, 11	Simple Linear Regression	12
FINAL EXAM:	TUESDAY, DECEMBER 15, 12:30 p.m.	