

## ECONOMETRICS 120A

### *Course Description:*

The course introduces students to the science of statistics, building student skills in the analysis of data and introducing the formal methods used by statisticians to learn about the real world from data. As a building block students will be introduced to basic probability theory. We will gain an understanding of the collection of data and the problems and opportunities this affords. Students will be expected by the end of the course to understand the foundations of modern statistical analysis in preparation for 120B and C which will concentrate on developing methods of statistical analysis extending the concepts covered in this class.

*Webpage* : [www.econ.ucsd.edu/~gelliott/Economics120A.htm](http://www.econ.ucsd.edu/~gelliott/Economics120A.htm)

### *TextBook*

Wonnacott, T.H. and R.J. Wonnacott, (1990) Introductory Statistics for Business and Economics, Fourth Edition, John Wiley and Sons: New York.

### *Course Outline*

A much more detailed guide to reading is on the webpage, click on READING at the bottom of the page.

Ch1 Introduction

Ch2 Descriptive Statistics (also Chapter 11, Sections 1,2)

Ch4 Probability Distributions.

Ch5 Two Random Variables.

Ch6 Sampling.

----- Data Generation .

Ch7 Point Estimation.

Ch9 Hypothesis Testing

Ch 8 Confidence Intervals

Note: I am skipping chapter 3, which contains some basic results regarding probability. Please read through this chapter even though it is not directly examined – the remaining chapters use probability results.

Statistical software: All of the statistics in this course can be done using the Microsoft Excel spreadsheet program, which is available in the computer laboratory in Econ 100. You may use other econometric or statistical software. Data, Problem sets and solutions will also be available from the class webpage.

### *Grading*

There will be a number of assignments (probably 5), two midterm examinations (Feb 6 and March 1 in class) and a final exam (March 22, 3-6pm). The assignments have a total weight of 20% of the final grade, the midterms are each worth 20% and the final is worth 40% of your grade. It is important to do problems in this course, this is the best preparation for both learning and also for the exams. Assignments are due at 4pm on the day specified (see web for instructions). If there is class that day they can be handed in class. Please do not interrupt class (it is disruptive) or come to my office (I do not grade them, they might get lost) to hand in assignments. Late assignments will not be accepted (the answer key is immediately posted on the web so it is obviously unfair to other students for me accept assignments that could be copied from the class website).

Exam policies: You may use a calculator, a simple one is enough. All grading problems (exams and problem sets) must be rectified within a week my returning the work. There will be no regrading of exams written in pencil. Makeup exams will only be given if absence is due to medical reasons (Doctors

certificate required). In general, makeup exams will be at least as difficult as the regular exam, most likely harder.

*Office Hours* :Office hours are posted on the web.