# Econ 120C, Fall 2007

Instructor: Stephen Stohs          Department of Economics, UCSD

## Course Objectives

Econ 120C is a sequel to Econ 120A and Econ 120B. The objective of the course is to provide you with knowledge of econometrics in theory and applications. By the end of the course, you should be skilled users of basic econometric methods and critical interpreters of empirical studies.

This course requires a quarter-long commitment. You should spend at least 5 hours per week on this course. Econometrics is best learned through experience, and I will require you to do a fair amount of hands-on work. Successful completion of prior courses in statistics/econometrics, preferably Econ 120A and Econ 120B, is required. The mathematical prerequisites for Economics 120C are Mathematics 10ABC or 20ABC, or their equivalent. Prior experience with computers or statistical software such as STATA would be advantageous, though I will go over the fundamentals and provide an introductory exercise to familiarize you with using STATA on the first problem set.

## Lecture and Discussion Section Information

The course meetings include two lectures and two discussion section meetings per week. The locations, meeting times and discussion leaders (for section meetings) are as follows:

Lecture Tu/Th 8:00a – 9:20a  Warren Lecture Hall 2001

Discussion Section A01 M 9:00a - 9:50a  (Leah Nelson) Pepper Canyon Hall 109

Discussion Section A02 F 1:00p - 1:50p  (Tim Keller) Pepper Canyon Hall 109

Notes:  Monday section will cover the same material as the preceding Friday; students may attend either section as suits their schedule.

## Web Page

The course web page may be accessed at http://webct.ucsd.edu.  Students are strongly advised to become familiar with accessing the web page early on, as this will be a repository for course lecture notes, problem sets and data.  Please access the course web site regularly in order to keep abreast of any changes. If you have any question regarding grading policy, exam format or any other issues, consult the course web page first. Chances are that you can find the answer there. If you cannot, please contact one of the TAs or me by e-mail.

## Textbooks

*Required:*

The required text for this class is *Introduction to Econometrics,* James Stock and Mark Watson (Addison Wesley 2002). I have asked that copies of the book be placed on reserve at SSH.

*Alternative Text* (for reference):

*Introductory Econometrics*, Jeffrey M. Wooldridge (Southwestern: 2002).  This is another widely used textbook. This book is more advanced than the one by Stock and Watson, and is recommended for students who are not afraid of challenges.  This book will also be placed on reserve at SSH.

## Problem Sets

There will be five assignments (one for each two-week period of the course), each of which will carry a weight of 2% towards the final grade. The assignments will involve both theoretical and empirical work. Group study and free discussion are encouraged, but you should write up and submit your own answers, including the STATA output.  Problem set answers are to be handed in at the beginning of lecture on the due date. Do not e-mail assignments.  Late homework will generally not be accepted.  If you have a valid excuse, please e-mail me.  I will return your graded problem sets to class.  If you are unable to pick up your problem set in class, you may pick it up at the office of the TA who graded it.

If you have any question on the problem sets, please ask a TA or me during our office hours. I would prefer to talk to you in person.  If you do not have time to come by in person, you may also send your questions by e-mail, but note that e-mail is not an ideal medium for clearing up econometric questions.

## Examinations

There will be one mid-term exam, carrying a weight of 40%.  The <u>cumulative</u> final exam will carry a 50% weight.  Both exams will be closed book. Bring a calculator which is capable of computing log and exponential functions. (Note:  You should be able to find a suitable calculator for less than $20 if you do not already own one.)  You do not need to bring a blue book, but you may wish to bring your own paper as a supplement to the writing space provided on the exam.

There will be no make-up exams. An exception will be made for valid emergencies, in which case documentary evidence is required to avoid receiving a zero on the exam.   If you miss the midterm for reasons of an emergency and provide acceptable evidence, then the final exam will carry its weight.

## Grading

All grading problems must be rectified within a week from the time a graded exam or assignment is returned.

- **Re-grading of exams will only be considered in cases of blatant grading error.** Re-grading will not be allowed for exams which were written in pencil. If you write in pencil, however, you can look over the exam at my office, and resolve grading disputes before leaving the office. Please address exam re-grading requests to me.
- If you have any questions or complaints on the problem set grading, please resolve them with the TA who graded it.
- Re-grading of the exams will also be resolved with the TA who graded the answer which is in dispute.

Course grades will be computed as follows. First, if the mean score of any exam (including the mid-term and the final) is below 75 percentage points, points will be added to all scores to bring the mean score for the exam in question up to 75. Second, a weighted average of numerical scores will be obtained. Suppose your scores on the problem sets are 90, 95, 90, 80 and 90. Further, assume your midterm and final exam scores are 80 and 90 (after possible adjustment), respectively. Then the final course average is computed as the weighted average rounded to the nearest integer, and the course grade is computed directly off this average: 90*2%+95*2%+90*2%+80*2%+90*2%+80*40%+90*50%=85.90=86. The weights on the problem sets, midterm and final exams cannot be changed. Finally, letter grades will be assigned using the following scale:

| >=95 A+ | [80,85) B+ | [65, 70) C+ | [50 55) D |
|---------|-----------|-------------|-----------|
| [90,95) A | [75,80) B | [60, 65) C | < 50 F |
| [85,90) A- | [70,75) B- | [55, 60) C- | |

Note that the scale is exact. So if your course average is 85.90, you will get an A-. Grades very close to the boundary might be rounded up if the student is an active participant in class.

I will not assign letter grades on the midterm. However, you can refer to the above table to see where you stand.

## Policy on Academic Dishonesty

Academic dishonesty is a growing problem on our campus, and will be treated in this course as a serious violation of university rules. The university's policy on academic dishonesty may be found at this web site: http://www-senate.ucsd.edu/manual/appendices/app2.htm. Students who are caught cheating on the exams will have their cases referred to the Dean of Student Affairs of the student's college, which could potentially lead to a formal hearing of the case by the Academic Dishonesty Hearing Board and a failing course grade which remains on the student's permanent record.

An exception to the general policy on academic dishonesty is made for students who wish to

work together on their problem sets.  If you pursue this option, it is still incumbent on you to have an independent understanding of how to answer the questions, and to submit a version of the answers to the questions in your own words to receive credit.

## E-mail and Office Hours

Instructor:  Stephen Stohs    sstohs@ucsd.edu

TAs:  Leah Nelson (50% time)    lknelson@weber.ucsd.edu

Timothy Keller (50% time)    tkeller@ucsd.edu

Course Reader:  Martin Tobal (25% time)    mtobal@ucsd.edu

Office Hours:  (Instructor) Immediately after class, on request; otherwise, by appointment.

Tim: Mon 2p-4p in SH 140.

Leah: Wed 9a-11a in SH 233.

| Basic Topic | Text Readings |
|---|---|
| Introduction to Asymptotics | Sections 2.6, 15.2, Appendices 15.1-15.2 |
| Nonlinear Regression Functions | Ch 6 |
| Binary Dependent Variable Regression | Ch 9 |
| Midterm Exam | Thursday November 8, 2007 |
| Instrumental Variables Regression | Ch 10 |
| Time Series | Ch 12 |
| Final Exam | Tuesday December 11, 2007, 8-11am (Location TBA) |