University of California, San Diego
Department of Economics

Instructor
Maria Teresa Cândido, Ph.D.
Spring 2005
Class Meets: MWF 11:00 - 11:50 pm
Center Hall Room 109

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Teaching Assistants
Seth Pruitt sjpruitt@ucsd.edu
Office Hours: Wed 10-11 am
Wed noon-2 pm (Sequoyah 236)

Giuseppe Ragusa gragusa@econ.ucsd.edu
Office Hours: Tue 1:30-3:30 pm (Economics 118)

Economics 120B
Econometrics

Course Description

The course aims to prepare students for practical empirical research in an academic or business setting. It introduces the three basic concepts in econometrics: quantifying uncertainty with confidence intervals; using regression to infer causal relationships; and using regression for prediction. The course provides the standard tools necessary to perform and read empirical research.

Course Materials

Required Textbook: "Introduction to Econometrics" by James H. Stock and Mark W. Watson, Addison-Wesley 2003.
Chapters to be covered: 1-5, 7, 10 (up to page 340), 11.

Required Software: The software for this course is STATA (www.stata.com). Students can use STATA in the computer laboratory in Economics Building #100. Microsoft Excel may also be used to do basic regression analysis. Do not use other software packages.

My Expectations

1. Regular Class Attendance – You should come to every class. If you should miss a class, it is your responsibility to get lecture notes or any possible handout or problem assignment

2. Come to class prepared – You should always review your notes from the last lecture.

3. Do your homework – Homework is assigned to assist you in studying. Even when homework is not to be turned in, you should do any assigned problems prior to each class.

Grading

20% Homework Assignments
35% Midterm Exam
45% Final Exam

There will be four homework assignments, each carrying a weight of 5% towards the final grade. Problem sets are to be turned in at the beginning of the lecture on the due date.
The midterm exam is scheduled to **Friday, April 29th,** at lecture time. The final exam will take place on **Monday, June 6th** from 11:30-2:30 pm and will be cumulative. The dates for the exams are not negotiable. There are no make up exams. If you miss a midterm for a justifiable and verifiable medical/legal reason, your midterm grade will be your grade on the final. Otherwise you will receive a zero, no exceptions!! The questions asked on exams will be based on textbook reading, lectures and assigned problems. No one can leave the room during an exam.

Course Web Page

A course web page is available at http://dss.ucsd.edu/~sjpruitt/S05EC120B.htm
It will include information relevant to the course, such as announcements, problem sets, answers to assigned problems, solutions to exams, syllabus, schedule and more. You should check this page regularly.

Add/Drop Policy

To add or drop the course, to change discussion section or for any question regarding waitlist procedures, please go to the Economics Student Services in Sequoyah Hall room 245 (8:00 am – 12 pm and 1:00 pm to 4:30 pm). The instructor will not sign add cards.

Outline of the Course

Part I: Introduction and Review (Chapters 1-3)
- Correlation vs. causality; Policy analysis vs. prediction; Experimental vs. nonexperimental data
- Exact/finite sample distribution vs. large sample distribution
- Introduction to Stata

Part II. Linear Regression with One Regressor (Chapter 4)
- Least Square principle
- Sampling distribution of OLS estimator (data generating process)
- Confidence interval and hypothesis testing: small sample approach and large sample approach
- Revisit Econ 120A. Use regression with only intercept to infer about the mean
- Revisit Econ 120A. Use dummy variable regression to compare means from different subpopulations.

Part III. Linear Regression with Multiple Regressors (Chapter 5)
- Sampling distribution of the OLS estimator
- Confidence interval and hypothesis testing for a single coefficient
- Confidence set and joint hypothesis testing for more than one coefficient

Part IV. Topics in Multiple Regression
- Sources of OLS biases: measurement error, omitted variable, simultaneity and sample selection (Chapter 7, Chapter 11.1-11.4)
- Instrumental variable regression with one endogenous regressor and one instrument (Chapter 10.1, Chapter 11.5-11.8)