Department of Economics
Boston College

Spring 2004

Economics 228-02
Econometric Methods
Class Syllabus

Instructor:	Raffaella Giacomini (giacomin@bc.edu)
Office:	21, Campanella Way, Room 469
Office Hours:	W 10:30 - 12:30
Teaching Assistant:	Massimo Giovannini (giovanma@bc.edu)
Office Hours:	F 11-12 in the student lounge at 21, Campanella Way, Room 480Q
Course web page:	http://www2.bc.edu/~giacomin/EC228.html
Class time and location:	MWF 2-2:50, Fulton 110

Course Description

This course will teach students how to estimate and evaluate statistical models for the analysis of economic and financial data. We will consider the regression model - which is still the most widely used in the real world - and some of its extensions. The student will learn how to construct the appropriate model depending on the nature of the data and on the relevant question, how to estimate the model and, finally, how to critically interpret the results of the estimation. The focus is both on theory and on practical applications using actual data.

Prerequisites

Familiarity with basic elements of statistics and math (e.g., calculus and EC 151). The first couple of lectures will be dedicated to reviewing the fundamental statistical concepts needed for the course. This review will be short and fast-paced and is only meant to be a brush-up. If you are having trouble with any part of this review, a good textbook to have on your shelf is:

Paul Newbold: *Statistics for Business and Economics*, Prentice Hall

Textbook

J. Stock and M. Watson, *Introduction to Econometrics* (first edition), Addison Wesley, 2003.

Software

Most homeworks will involve empirical exercises. The software package used for the course is STATA, which is available on the computers in the O'Neil computing lab. There will be a brief STATA tutorial in class and I will post a handout on the course web page.

Grading

I do not grade on a curve. Final grade will be based on two in-class midterm exams (25% each), 6 homeworks (grade will be based on best 5) (10%) and a cumulative final (40%).

Exams

First midterm: February 20.

Second midterm: March 26.

I will let you know before the exam which material each exam covers. Your are allowed to bring one sheet of paper to the exams. You must bring your own calculator. No make-up exams will be offered, except in the case of certified medical absence.

Homeworks

Homework assignments will be posted on the web page. I will let you know when they are available but you are responsible for printing them. Homeworks must be handed in before class on the due date and answers will be posted on the course web page the following day. Homeworks handed in after class but on the day they are due will be marked down 30%, while there will be no credit for homeworks handed in one or more days after they are due. For the homeworks, you are encouraged to work in groups of maximum 3 people, but each person should write up his or her own answer. Please write down the names of the people in the group on the homework and include computer printouts (but not the printout of the data).

You will receive 0 for any homework not handed in but you will receive an "F" if you don't hand in any of the 6 homeworks.

Grading policy

Graded exams and homeworks are returned in class. Grade disputes can only be rectified within a week from the time the exam or homework is returned. Except for obvious mistakes in adding up points, there will be no re-grading for exams written in pencil.

E-mail policy

E-mail messages should be kept to a minimum. I will not answer emails requesting help in solving the homework problems but I or the TA will be happy to help you in person during office hours (or by appointment). Please avoid stopping by the office at random times.

Course outline

- Introduction and elements of probability and statistics (Chapters 1-3)
- Statistical models (estimation and evaluation)
    1. Linear regression with one regressor (Chapter 4)
    2. Linear regression with multiple regressors (Chapters 5, 7)
    3. Nonlinear regression (Chapters 6, 7)
    4. Regression with binary dependent variable (Chapter 9)
    5. Instrumental variables regression (Chapter 10)
    6. Time series models and forecasting (Chapters 12, 13)