BOSTON COLLEGE
Department of Economics

EC 771B: Econometrics — Spring 2000
Prof. Baum — Carney 230, 552-3673
email baum@bc.edu — Office hrs M 10-12 and by appt.

Required text: Greene, *Econometric Analysis*, 4th ed., 2000 (G)

Other useful texts:

Johnston, *Econometric Methods*, 3d edition,
Kmenta, *Elements of Econometrics,*
Pindyck & Rubinfeld, *Econometric Models and Economic Forecasts*

Objectives: This course continues EC771A to provide the required Ph.D. level introduction to econometric theory and methods. It takes as prerequisite the fundamentals of mathematical statistics and basic econometrics addressed in EC 770 and EC771A. EC 771B elaborates on aspects of OLS regression analysis and presents an introduction to several major techniques widely used in applied econometric work: simultaneous equations, panel data estimators, and time series modelling. Some emphasis will be placed on the analysis of large data sets. The course is designed to build a solid base of theoretical understanding, and exercise this theory with economic applications, providing a base of practical knowledge for the practitioner.

A sizable segment of your requirements in the course will include use of an econometric computer package (Stata 6.0, available on fmrisc.bc.edu and on Macintosh systems in the department) for the solution of applied problems, and discussion of the empirical findings. You are expected to develop proficiency in programming one or more of these econometric packages. MATLAB and GAUSS will not be covered in this course.

Empirical assignments which develop econometric programming skills are an important part of the course.

Requirements:
Problem sets, total 30%
Midterm exam, 30%
Final exam, 40%

Notes :
Problem sets will not be accepted after their due dates.
Work on problem sets should be largely your own.

The course will meet for 19 two-hour sessions, starting Tuesday, 22 February 2000 through Thursday, 4 May 2000. One class meeting will be used for a midterm exam, date to be announced.

Topics to be covered (references to Greene)

1. G § 6.7-6.9	Data problems
2. G § 11.1-11.4	Nonspherical disturbances and generalized LS
3. G § 12	Heteroskedasticity, ARCH
4. G § 13	Autocorrelated disturbances
5. G § 14	Models for panel data
6. G § 15.4-15.7	SUR model, demand systems, flexible functional form, GMM
7. G § 16	Simultaneous equations models
8. G § 18	Time series models, unit roots, cointegration