

ECON 212f (2)

Applications of Econometrics

Spring 2004

SYLLABUS AND COURSE OUTLINE

(Preliminary and subject to change)

Instructor: Serkan Bahçeci
Sachar 123
serkan@brandeis.edu
Office Hours: TBA

Teaching Assistant: TBA

Classes: TBA

Course Objectives This is the second one of two consecutive modules on econometrics. You should have taken 211f or an equivalent course covering the simple regression and hypothesis testing. Furthermore, people who are not comfortable with the concepts of random variables and estimators, expected value, and other basic statistical concepts will likely have great difficulty with this class. Familiarity of matrix algebra will not be required, however.

The most foundational and common methods of statistical analysis used in economics and business will be covered in this part. You will learn the basic concepts and theory behind these statistical techniques, and gain experience in applying them to actual data, and interpreting the results.

Very little "time series" econometrics will be covered in this class. The reason is that it is really a complete field unto itself, and in some ways very different. So if you are hoping to beat the stock market, this class won't help.

Disability Clause If you are a student with a documented disability on record at Brandeis University and wish to have a reasonable accommodation made for you in this class, please see me immediately.

Honesty Clause You are expected to be honest in all of your academic work. The University policy on academic honesty is distributed annually at section 5 of the Rights and Responsibilities handbook. Instances of the alleged dishonesty will be forwarded to the Office of Campus Life for possible referral to the Student Judicial System. Potential sanctions include failure in the course and suspension from the University. If you have any questions about my expectations, please ask.

Textbooks

Required *Statistics and Econometrics*, by O. Ashenfelter, P. B. Levine, D. J. Zimmerman, John Wiley, 2003.

Recommended *Basic Econometrics with Software Disk Package*, Fourth Edition, by D. Gujarati, McGraw Hill, 2002.

Recommended *A Guide to Econometrics*, Fourth Edition, by Peter Kennedy, MIT Press, 1998.

Grading Information Your grade for the course will be determined on the basis of the homework assignments (10%), class attendance, unannounced quizzes and participation (10%), midterm exam (25%), term paper (20%) and a final exam (35%). The importance of keeping up with the homework assignments cannot be over-emphasized, and late solutions will not be accepted. The questions on the assignments are meant not only to serve as a review but also to explore issues introduced in the lectures. Class participation is also expected, and performance may be taken into account in assigning final grades. The term paper is an empirical project, in which you will be responsible for analyzing a data set using the techniques developed in class. The results must be presented in a coherent essay, which will be graded on the basis of its internal logic, completeness, grammar and style, in addition to its statistical methodology.

If you have any conflicts with the exams let me know in advance. If you miss an exam without an acceptable legal document/reason (for example, illness supported by a medical report), no make-up exam will be given. There will be absolutely no make-up quizzes (since they are unannounced).

I will also assign weekly readings. All reading assignments come from the textbook and will be posted in the webct. Please keep up with your reading assignment. It is essential for you to understand the concepts presented in the class. Feel free to ask questions during the lecture.

Course Outline (preliminary)

1. Introduction
2. Multiple Regression: Hypothesis Testing (Ashenfelter et al, Chapters 11 and 12; Gujarati, Chapters 7 and 8)
3. Dummy Variable Models (Ashenfelter et al, Chapter 16; Gujarati, Chapter 9)
4. Multicollinearity and Specification Errors (Ashenfelter et al, Chapter 13; Gujarati, Chapter 10)
5. Heteroskedasticity and Autocorrelation (Ashenfelter et al, Chapter 14; Gujarati, Chapters 11 and 12)
6. Simultaneous Equations (Ashenfelter et al, Chapter 15; Gujarati, Chapters 18 and 19)
7. Time Series Analysis – time permitting (Ashenfelter et al, Chapter 17; Gujarati, Chapters 21 and 22)