ECON 4750
Introduction to Econometrics
Course Syllabus
Spring 2013

Instructor: William D. Lastrapes

Contact information:
Office: 505 Brooks Hall
E-mail: last@uga.edu
Phone: 706 542 3569
Office hours: Tuesday/Thursday, 10:00a - 11:30a

Class information:
Classroom: Sanford 109
Time: Monday/Wednesday/Friday, 11:15a to 12:05p
Mid-term exam: Friday, February 22
Final exam: Monday, May 6, noon to 3p

The course: ECON 4750 is an introduction to econometrics: the application of statistical analysis to economic data with the aim of expanding knowledge of economic behavior. After taking this class, you will be able to specify and estimate linear regressions using both cross-sectional and time series data, test hypotheses about model parameters, and interpret the estimation and testing results in light of economic theory. Course pre-requisites: STAT 2000 or MSIT 3000.

Course web page: I will post problem sets, announcements and other material to the course eLC web page. You are responsible for checking the page routinely.

Course materials:


This book is available from the publisher at the link above as either hard-copy or a CourseSmart e-Textbook (with temporary access), from amazon.com, or from the UGA bookstore (available new, used, or for rent). The primary advantage of buying the book, rather than obtaining temporary access, is that it can serve as a helpful reference if you plan on doing future work in econometrics. Either option is fine for this course. The textbook is supported by a student resource page that contains data that will be used for homework exercises, as well as other helpful material.

• Statistical software:
You will need access to statistical software for econometric exercises and data analysis. Although spreadsheet programs like Excel can be used for simple modeling tasks, it is best to use software tools that are richer and more powerful than
spreadsheets. For this course, I recommend *Stata*. As a UGA student, you can **purchase** a six-month license for the ‘IC’ version of the program for $65. The student resource page for the Stock-Watson test has a tutorial for using *Stata*. Other software options include **E-views** (which is also supported at the textbook’s student resource site), **RATS (Regression Analysis of Time Series)**, and the free software program **R**.

**Grading:** Your final course grade will be a weighted average of your performance on a mid-term exam (25%), a comprehensive final exam (35%), two take-home problem sets (20%) and a group research project (20%). Details of the research project are given on the course web page. I will not give a makeup for the mid-term exam but will add the weight of a missed mid-term to the final exam. You must take the final exam at its scheduled time unless: 1) the Office of the Vice-President for Academic Affairs verifies that you have a final exam conflict (**UGA conflict policy**); or 2) you have a documented family emergency or personal illness. I assign letter grades, using the plus/minus scale, based on my assessment of the final course grade distribution; there is no fixed grading scale. *Class attendance may affect your grade; see below.*

**Attendance:** I will drop your course letter grade (as determined above) by one level (e.g., from an ‘A minus’ to a ‘B plus’) for each counted class absence beyond the third. For example, a student who earns a final course grade of ‘C’ based on course-work performance will receive an ‘F’ if he or she is counted absent six times or more.

**Academic honesty:** I expect all students in this course to fully understand and comply with UGA’s culture of academic honesty: *As a University of Georgia student, you have agreed to abide by the University’s academic honesty policy, “A Culture of Honesty,” and the Student Honor Code. All academic work must meet the standards described in “A Culture of Honesty” found at: www.uga.edu/honesty. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.*

**Course outline** [corresponding chapters in text]:

1. Review of probability and statistics [1, 2, 3]
2. Linear regression with one regressor
   (a) Estimation [4]
   (b) Inference [5]
3. Linear regression with multiple regressors
   (a) Estimation [6]
   (b) Inference [7]
   (c) Non-linear regressions [8]
   (d) Model assessment [9]
4. Instrumental variables regression [12]
5. Time-series data
(a) Fundamentals of time-series analysis [14]
(b) Causal inference and distributed-lag models [15]
(c) Topics: VAR models, Cointegration, ARCH processes [16]

6. Panel data [10]

This syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.