

ECON 8110
Introduction to Econometrics
Course Syllabus

Spring 2012
MW, 1100-1215
Sanford 204

INSTRUCTOR

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Office hours
Friday, 130-330
and by appointment

COURSE DESCRIPTION

ECON 8110, one of the three courses in the department's advanced econometrics sequence, focuses on the analysis of cross-section and panel data. Particular attention is given to generalized method of moments, which serves as the framework for addressing most of the estimation and inference problems considered in the course. Program evaluation methods are also covered. ECON 8080 is a prerequisite.

COURSE OBJECTIVE

Students will learn how to specify and estimate cross-section and panel regression models, and test hypotheses about model parameters, using instrumental variables and the generalized method of moments. Students will also learn specialized estimation techniques for program evaluation.

COURSE MATERIAL

Required text: Wooldridge, J., *Econometric Analysis of Cross Section and Panel Data*, MIT Press 2e. [[Amazon](#) | [MIT Press](#)]

Other Useful Texts for this Course:

- Angrist, J. and J.-S. Pischke, *Mostly Harmless Econometrics*, Princeton
- Arellano, M., *Panel Data Econometrics*, Oxford University Press.
- Cameron, A. and P. Trivedi, *Microeconometrics*, Cambridge.
- Cameron, A. and P. Trivedi, *Microeconometrics Using Stata*, Stata Press.
- Baltagi, B., *Econometric Analysis of Panel Data*, Wiley, 3e.
- Hayashi, F., *Econometrics*, Princeton University Press.
- Hsiao, C., *Analysis of Panel Data*, Cambridge, 2e.
- Lee, M., *Panel Data Econometrics*, Academic Press.
- Mátyás, L. and P. Sevestre, *The Econometrics of Panel Data*, Kluwer Academic, 3e.

TOPICAL OUTLINE

1. Linear regression: review and extensions
 - 1.1. Ordinary least squares
 - 1.2. Instrumental variables
 - 1.3. Control function approach to endogeneity
 - 1.4. Other data structures
2. Multivariate linear models: review and extensions
 - 2.1. SUR models
 - 2.2. GMM estimation of linear systems
 - 2.3. Simultaneous equations models
3. Estimation of with panel data
 - 3.1. Linear models with strict exogeneity
 - 3.2. Linear models without strict exogeneity
 - 3.3. Limited dependent variable models
4. Treatment effects estimation and program evaluation
 - 4.1. Propensity score and matching methods
 - 4.2. Difference in differences
 - 4.3. Regression discontinuity design
 - 4.4. IV revisited

ASSIGNMENTS AND GRADING POLICY

Performance will be evaluated on the basis of 3 problem sets and a final exam, weighted as follows:

Component	Weight
problem sets	.60
final exam	.40

You will be ranked relative to other students in the class according to your overall performance and grades assigned based on your class rank. I will use the plus/minus system to make distinctions within grade categories.

Class Attendance

Regular class attendance is expected. [UGA academic regulations](#) authorize a professor to withdraw students with excessive absences and I will exercise that authority.

Exam Dates & Policies

The final exam is scheduled for **Fri, May 4 at 1200p.**

Failure to take the final exam at the scheduled time will result in a grade of zero. There are 2 and only 2 exceptions to this rule: (1) if the Office of the Vice-President for Academic Affairs verifies that you have another exam scheduled for the same time or three exams scheduled on the same day, or (2) if you have a *documented* family emergency or personal illness. In the case of (2), you must resolve the situation as promptly as possible.

If you know now that you will not be able to take the final exam at the scheduled time, then you should drop this course.

ELECTRONIC DEVICE POLICY

Cell phones must be muted or turned off and stowed away during class. Unless otherwise instructed, laptop computers must also be stowed away.

UNIVERSITY HONOR CODE & ACADEMIC HONESTY POLICY

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.

CHANGES TO THE SYLLABUS

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