Economics 8838

Fall 2007

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Office: Economics 10	Location: Economics 5
Voice: 303-492-7414	Meeting Times: TR 2:00 – 3:15 pm
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Course Description:

Econ 8838 is an advanced level econometrics course that focuses on the analysis of individual-level data. It covers econometric methods based on the general linear and nonlinear models for cross-section data and panel data. Numerical and simulation-based computational techniques in estimation will also be addressed. If time permits, some semiparametric estimation methods will be introduced.

Text:

Microeconometrics, A. C. Cameron and P. K. Trivedi, Cambridge, 2005.

Other Useful Books:

T. Amemiya, Advanced Econometrics, Harvard University Press, 1985.

R. Davidson and J. G. MacKinnon, *Econometric Theory and Methods*, Oxford University Press, 2004.

William H. Greene, Econometric Analysis, 5th edition, Prentice Hall, 2003.

G. Judge et al., The Theory and Practice of Econometrics, 2nd edition, Wiley, 1985.

P. Kennedy, A Guide to Econometrics, 5th edition, MIT Press, 2003.

G. S. Maddala, *Limited-Dependent and Qualitative Variables in Econometrics*, Cambridge University Press, 1983.

Prerequisites:

Economics 7818 and 7828, and the material in Chapter 4 and Appendix A of the text.

Assessment:

There will be a midterm exam, a final exam, and periodic problem sets. Some assignments will involve the use of computer packages to estimate econometric models.

- 1. Homework assignments (15%)
- 2. Midterm examination (40%), Tuesday, October 16
- 3. Final Examination (45%)

Tentative Course Outline:

- 1. Review of Linear Models (Text: Chapter 4). OLS and IV estimaiton.
- m-Estimation and Computational Methods (Text: Chapters 5 and 10). ML and NLS estimation.
- Discrete and Limited Endogenous Variables Part A (Text: Chapters 14 and 15). The probit and logit models; The multinomial models.
- Linear Panel Data Models Part A (Text: Chapter 21) Fixed and random effects models.
- Discrete and Limited Endogenous Variables Part B (Text: Chapter 16). Models for censored and selected samples.
- Linear Panel Data Models Part B (Text: Chapters 6 and 22) IV and GMM estimation.
- 7. Simulation-Based Methods (Text: Chapter 12).

Maximum simulated likelihood estimation; Moment-based simulation estimation.

8. Introduction to Semiparametric Methods (Text: Chapter 9).

Kernel density estimation; Kernel regression.

Disability Message

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303–492–8671, Willard 322, and <u>www.colorado.edu/disabilityservices</u>.

Religious Observance

Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, I ask that you let me know of a conflict with at least one week's notice, so I can work out an alternative arrangment. See full details of the University Policy at www.colorado.edu/policies/fac_relig.html.