Economics 8838-001   Spring 2014

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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, spatial and social interaction models 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.

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%)

3. Final Examination (45%)

Tentative Course Outline:

1. Review of Linear Models (Text: Chapter 4).

      OLS and WLS estimation.

2. M-Estimation (Text: Chapter 5).

      ML and NLS estimation.

3. Discrete and Limited Endogenous Variables - Part A (Text: Chapters 14 and 15).

      Probit and Logit models; multinomial models.

4. Discrete and Limited Endogenous Variables - Part B (Text: Chapter 16).

      Models for censored and selected samples.

5. Generalized Method of Moments (Text: Chapter 6).

      2SLS and GMM estimation.

6. Linear Panel Data Models (Text: Chapters 21 and 22).

      Fixed and random effects models.

7. Simulation-Based Methods (Text: Chapter 12).

      Maximum simulated likelihood estimation; Moment-based simulation estimation.

University Policies:

University policies regarding classroom behavior are available at http://www.colorado.edu/policies/classbehavior.html and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code

Information regarding the University Honor Code is available at http://www.colorado.edu/policies/honor.html and at http://www.colorado.edu/academics/honorcode. The Honor Code Council can be contacted by email at honor@colorado.edu or by telephone at 303-725-2273.

University policies regarding disabilities are available at http://www.colorado.edu/disabilityservices. Disability Services can be contacted by telephone at 303-492-8671, or in person at Willard 322.

University polices regarding religious practice are available at http://www.colorado.edu/policies/fac_relig.html.

University policies regarding Sexual Harassment and Amorous Relationships are available at http://www.colorado.edu/odh/. The Office of Discrimination and Harassment can be reached by telephone at 303-492-2127. The Office of Judicial Affairs can be reached at 303-492-5550.