

Economics 8838
Dr. Waldman
Room 222, Economics

August 26, 2003
waldman@colorado.edu
Office Hours: TR 4:30 - 5:30

Course Information

General: Economics 8838 is one of two courses offered for a field in econometrics by the Department of Economics. Course material will emphasize methods of estimation in cross-section and panel data sets, and the practical application of these methods. Topics include but may not be limited to: discrete and limited dependent variables; sample selection models; panel data; errors in variables, and count data. Throughout, students are expected to be able to write computer programs in GAUSS (especially using the Maxlik module), to implement the estimators and tests studied in this course. Prior knowledge of Gauss is not necessary.

Prerequisites: Economics 7818 and 7828, or equivalent. Note: Economics 8828 is *not* a prerequisite.

Requirements: There will be two lectures weekly, meeting Tuesday and Thursday from 8:00 to 9:15. There will be a midterm exam, Tuesday, October 21, a final exam, given Friday, December 12, and periodic problem sets throughout the semester.

Grading: Grades will be determined approximately as follows:

Midterm:	30%
Final exam:	35%
Problem Sets:	25%
Residual:*	10%

*This includes class participation, contact in office hours, subjective scoring of written work, etc.

Tentative Course Outline:

- I Overview and review of the classical, normal linear regression model, including maximum likelihood estimation.

Problem Set #1: Introduction to Data Analysis with Gauss

- II Discrete and Limited Endogenous Variables - Part A
Binary probit and logit; multiple outcomes; the Tobit model

Problem Set #2: Discrete and Limited Dependent Variables and the Value of Information

- III Discrete and Limited Endogenous Variables - Part B
Simultaneous equations models with discrete and limited endogenous variables

Problem Set #3: Program Participation and Energy Conservation

IV Sample Selection Models

Problem Set #4: The Returns to U.S. Work Experience in Mexico

V Discrete and Limited Endogenous Variables - Part C

Introduction to count data; Poisson and gamma models

Negative binomial models

Problem Set #5: to be determined

VI Combining Information

Data sets with continuous and discrete endogenous variables

Problem Set #6: Choice and Choice Response Time in Conjoint Estimation of Random Utility Models

Readings and texts:

Links for learning Links Gauss:

http://www.trigconsulting.co.uk/gauss/man_intro.html

http://www.wws.princeton.edu/~mwatson/ec518/gauss_tutorial.html#_Toc402061785

Readings from journals/manuscripts will be assigned during the semester. Texts (not required) I have found useful:

Amemiya, Takeshi. *Introduction to Statistics and Econometrics*.
Harvard University Press, 1994.

Goldberger, Arthur. *A Course in Econometrics*.
Harvard University Press, 1991.

Greene, William. *Econometric Analysis*.
Prentice Hall, 2000.

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

Ruud, Paul. *A Introduction to Classical Econometric Theory*.
Oxford University Press, 2000.

Wooldridge, Jeffrey M. *Econometric Analysis of Cross Section and Panel Data*,
MIT Press, 2003.