ECG790F (753) Advanced Econometrics (Microeconometrics)
Syllabus
Spring 2006

Instructor: Alastair Hall

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Office hours: 2.15-3.15pm W or by appointment

Class details: Lectures, 12.25-3.10pm M in Harrelson 181; Occasional Computer labs at the same time in Nelson B400

Main textbook:


Background reading:


Course Objectives:

This course is one of two parallel courses that can be taken as the second course in the sequence of econometrics for Ph.D students in economics. This first course in this sequence, ECG751, covers statistical methods relevant for the analysis of economic data and important statistical theory. This course builds from ECG751 to consider the application of these methods in microeconometric analysis. Key characteristics of microeconometrics are: (i) the use of cross-sectional or panel data; (ii) models for which linear regression is inappropriate such as limited dependent variable models or non-random samples.

Presentation of material:

As noted above, the lectures take place on Mondays from 12.25pm to 3.10pm. To make this schedule more palatable we will take a break for about ten minutes in the middle. The SAS related material is covered exclusively during sessions in the computer lab (Nelson B400) that are held intermittently in place of part or all of certain lectures. You will be advised of the schedule in advance.
Course Requirements and Grading:

The lectures assume the student has taken ECG 751 or its equivalent. Any student without this prerequisite must obtain the permission of the instructor to attend the class.

Your grade for each block will be calculated as follows. There are four homework assignments each of which accounts for 7.5% of the final grade; two exams each of which accounts for 35% of the final grade. The first exam will be held during lecture time on March 13, 2006 and will cover the material presented in the lectures from January 9 up to and including February 27. The second exam will be held during the final exam slot for the class and will cover the material in the lectures from March 20 up to and including April 24.

Course website:

All handouts and course related materials will be posted on the class website: http://www4.ncsu.edu/~arhall/ECG790F.htm

Course Outline:  W denotes Wooldridge, G denotes Greene, B denotes Baltagi; [1] denotes chapter 1, [1.2] denotes Chapter 1 section 2 etc.

1. Characteristics of microeconometric data
   - W[1], B[1]

2. Review of Maximum Likelihood and Generalized Method of Moments

3. Limited dependent variable models for cross sectional data
   - Multiple response models: W[15.9-15.10], G[21.7-21.8]
   - Censored regression models: W[16.1-16.5], G[22.1-21.3]
   - Sample Selection: W[17.1-17.6], G[22.4]
   - Count Data models: W[19.1-19.3], G[21.9]
   - Duration analysis: W[20.1-20.3], G[22.5]

4. Panel data models
   - Pooled OLS of linear regression models: W[10.3].
   - Linear regression models with unobserved effects (aka error component models); W[10.4-10.7], G[13.1-13.4], B[2-4].