Statistics 521: Applied Econometrics II
Spring 2009

Professor: Dylan Small
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Class hours: Monday and Wednesday, 1:30-2:50.
Office hours: Monday, 3:00-4:00; Wednesday, 3:00-4:00; by appointment.

Recommended Text: Wooldridge, J., Econometric Analysis of Cross Sectional and Panel Data, MIT Press.

Course description: This is a graduate course in econometrics aimed at applied economics Ph.D. students. The goal of the course is to prepare students for empirical research by investigating several important econometric methods.

Course web site: http://www-stat.wharton.upenn.edu/~dsmall/stat521-s09

Course Prerequisites: Statistics 520

Course Requirements: Grades will be based on regular homework assignments and a final project. The final project will consist of replicating the analysis in an empirical paper that uses econometric techniques taught in the course and then considering additional statistical analyses using the data set from the paper. Students can also use a data set of their own and propose an original analysis rather than replicating an existing analysis.

Software: The R package will be used throughout the lectures and the homework will involve using the R package. R is free software that can be downloaded from http://www.r-project.org/ .

Course Outline: The main topics that I plan to cover are the following: Advanced topics in using ordinary least squares (review of estimation, inference and prediction; variance estimation and the bootstrap; omitted variables bias and proxy variables; clustering and variance estimation; measurement error); maximum likelihood estimation; discrete response models; instrumental variables methods; and panel data.