G31.3002-04 Advanced Topics in Econometrics  
Fall 2014  
Course Syllabus

Class meets in 19 W4th St, Room 624  
Thursday 10-12am

Instructor: Konrad Menzel  
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Office: 19 W4th St, Room 829  
Office Hours: by appointment

Course Description and Prerequisites

This course will be about econometric methods for cross-sectional and panel data relevant for empirical research in economics. Topics include the bootstrap, nonparametric and semiparametric estimation, and bounds. The methods will be illustrated with economic applications. This class is intended for students who have already taken econometrics at the level of the first-year graduate sequence.

Requirements

The course grade will be based on three problem sets over the course of the semester. The assignments will consist of both theoretical and programming exercises which can be done in Matlab, GAUSS, or any other comparable matrix-based software. Problem sets and other course material will be posted on NYU Classes.

Main Texts


Cameron and Trivedi (CT), and Wooldridge (W) are both great first references if you want to apply the methods discussed in this class, but do not give an in-depth discussion of the technical aspects. The van der Vaart (vdV) book is a good source for a more technical treatment of asymptotic theory in statistic if you are interested in theoretical econometrics, but for this class I’ll mostly use references which are written more specifically for economists and econometricians.

In addition, we will discuss several chapters from the Handbook of Econometrics which is available online at

http://www.sciencedirect.com/science/handbooks/15734412

Koenker’s book on quantile regression is available online to members of the Econometric Society via

http://www.econometricsociety.org/monograph.asp
List of Topics

1. Introduction: Statistical Experiments and Asymptotics (1 lecture, vdV 7-8)


2. Discrete Choice and Models of Strategic Interaction (2 lectures, CT 14-15, W 15)


* Menzel, K. (2013): Matching Markets as Two-Sided Demand Systems, working paper

3. Empirical Processes (3 Lectures, vdV 18-20)


4. Bootstrap (2 lectures, vdV 23, CT 11)


5. Nonparametric Estimation (2 lectures, CT 9.1-9.6,9.8)


6. Semiparametric Models (2 lectures, vdV 25, CT 9.7)


7. Partial Identification, and Bounds (2 lectures)


