

ECONOMETRICS III

China Center for Human Capital and Labor Market Research
Central University of Finance and Economics

Fall 2012

T, Th 10:10am-12:00pm (ZB Case Study Room 1, 3rd Floor)

Instructor

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Office hours: T, 2-5pm or by appointment

Course Description

This course covers some advanced microeconomic models that are popular in empirical studies. In particular, we will spend numerous lectures on estimating treatment effects. I have in mind that you are writing or about to begin your empirical thesis. This course is thus also designed to prepare you for a variety of empirical difficulties. Hopefully, you will be equipped with useful tools to solve the encountered problems in the future.

Readings

The required textbook is:

Jeffery Wooldridge (2010), *Econometric Analysis of Cross Section and Panel Data*, 2nd edition, MIT press (This is an excellent book and you are encouraged to purchase an *original* copy.)

Books & monographs below are also helpful but not required:

- Microeconometrics

A. Conlin Cameron and Pravin K. Trivedi (2005), *Microeconometrics: Methods and Applications*, Cambridge

- Monographs on Count Data, Quantile Regression and Survival Models

A. Conlin Cameron and Pravin K. Trivedi (1998), *Regression Analysis of Count Data*, Cambridge

Roger Koenker (2005), *Quantile Regression*, Cambridge

David Collett (2003), *Modelling Survival Data in Medical Research*, 2nd edition, Chapman & Hall/CRC

- Monographs on Causality and Identification

Charles F. Manski (1995), *Identification Problems in the Social Sciences*, Harvard

Stephen Morgan and Christopher Winship (2007), *Counterfactuals and Causal Inference: Methods and Principles for Social Research*, Cambridge

Judea Pearl (2000), *Causality: Models, Reasoning, and Inference*, Cambridge

- A Bedside Reading

Joshua Angrist and Jörn-Steffen Pischke (2009), *Mostly Harmless Econometrics: an Empiricist's Companion*, Princeton

In addition to books listed above, I may also assign you some journal articles as readings from time to time.

Course Slides

The slides for this course are originally produced by Professor Wooldridge of Michigan State University. I have acquired his permission to use the slides. However, you are not allowed to distribute them without his and my consent.

Course Requirements

1. One in-class open-book-open-notes exam on **November 1**.
2. You are required to conduct an independent empirical research project. You choose a topic of your own interest. But you have to discuss it with me and finalize your topic under my approval by **September 28**.
3. You have to turn in a written proposal of your intended research project in *English* on **October 12**. The proposal should illustrate a well-defined research question, the literature review, empirical method and data. The proposal should be no shorter than 3 pages and double-spaced.
4. By the end of this course, you have to make a 20-minute presentation of your research in *English*. The presentations will take place on **November 22 and 27**.
5. Finally, you have to write up your research in *English*. Specifically, your paper is due on **December 6**. *No paper will be accepted after this date*. The paper format is double-spaced and at-least-10-page-long excluding tables and figures. The contents should be well-organized and well-written as standard journal articles in economics.

I guarantee you that the project will take you a lot of time and you have to work extensively so that you can get it done before the due date. Hence, you are strongly encouraged to begin your project as early as possible. You are more than welcome to discuss with me regarding your paper along the way.

Grade Scheme

Midterm: 40 points
Proposal: 15 points
Presentation: 15 points
Term Paper: 30 points

Key Dates

September 28: finalize your research topic under my approval
October 12: turn in your proposal
November 1: in-class midterm exam
November 22: 5 presentations
November 27: 4 presentations
December 6: term paper due; *no paper will be accepted after this date*

Course Outline

1. Estimating Treatment Effects
2. Corner Solutions
3. Sample Selection and Attrition
4. Count Data
5. Quantile Regression
6. Duration Models

If we have time, we will cover the next two topics.

7. Estimation for Non-linear Models
8. Quasi-Maximum Likelihood Estimation

Academic Integrity

Academic integrity is always highly valued in my class. Any offense against the University and CHLR policy of academic integrity is subject to due penalties.