Econ 613  Applied Econometrics in Microeconomics

Spring 2015  10:05 – 11:20 AM, MW

Instructor: Daniel Yi Xu  126 Soc Psy Bldg.

This course is designed to provide applied econometric techniques, commonly used in Development, Industrial Organization, Labor, and Public Economics, to Master students in Economics, Public Policy, and Business. Students are expected to have taken at least one or more econometrics/statistics courses at the level of Econ 608D (Introduction to Econometrics).

The main aim of this course is not only to cover basic topics in cross section and panel data econometrics, but also to familiarize students with applications of these econometric techniques to real-world economic questions. The course instruction is divided between theoretical development in textbook and case studies which are taken from academic publications.

The students will have hands-on experience using STATA to solve 4-5 empirical problem sets.

Course Textbook

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

Supplemental Reading

*Mostly Harmless Econometrics*, Angrist and Pischke, Princeton Press

Teaching Assistant and Office Hour

Xian Jiang/Shuang Wang are the teaching assistants for this course. They are available to help you with course material and empirical problem sets.

I will also hold additional office hours during periods of midterm and final exams.

Grading

Your course grade will depend on your performance on problem sets, mid-term exam, and a final exam in the following way:

- Class Participation  10%
- Midterm Exam 1:  25%
- Midterm Exam 2:  25%
- Problem Sets:  20%
- Take-Home Final:  20%
There will be no makeup exams. If you miss one of the midterm, the weight of the missed exam will be placed on the other, with a penalty of 30% of your midterm grade. If you miss both midterms, you will automatically fail the course.

Take-home exam will be distributed in class on April 15 and due at the end of day April 17 (Friday).

Preliminary Course Outline (We will update as course proceeds)

1/7-1/15:

Instrumental Variables Estimation of Single-Equation Linear Models
System OLS
System Estimation by Instrumental Variables
Problem Set 1

1/19: No Class (MLK)

1/21-2/2:

Linear GMM
Panel Data Model I: Fixed Effect vs. Random Effect
Dynamic Panel Data
Problem Set 2

2/4: Midterm Review

2/9: Midterm Exam I

2/11-2/16:

M-Estimation and Numerical Optimization
Brief Review of Maximum Likelihood Method

2/19-2/26:

Discrete Response Model I
Discrete Response Model II
Problem Set 3

3/2

Sample Selection
3/4: Midterm Exam II

3/9 – 3/11: Spring Recess

   Randomization and Average Treatment Effects
   Matching Methods
   Problem Set 4

3/25-4/1:
   Panel Data Model II: Dif-in-Dif
   Regression Discontinuity Design
   Problem Set 5

4/6 – 4/15: TBD

4/17: Final Exam Due