Econ 5122
Econometric Analysis and Applications

Course Outline

Course code: Econ 5122
Location: Esther Lee Building 403
Time: Monday, 2:30pm—5:15pm

Instructor: Prof. Merrick LI
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Course Overview

This course is an introductory course on the applications of econometric analysis at the graduate level. The emphasis is on understanding and applying various methods, rather than on the study of the mathematical and statistical features of the estimators. Therefore, the level of mathematical sophistication in the course will not be particularly high. Topics that will be covered are: sample selection and random assignment, causal inference, omitted variables, linear and nonlinear models, parameters estimation methods, hypotheses testing, panel data models, discrete choice and censored data, instrumental variables models, regression discontinuity designs, difference-in-differences.

Prerequisite

The students should be familiar with linear algebra, basic probability and statistics, and (multivariate) calculus.

Course Assessment

1. Class participation: 5%

2. Presentation of papers: 20%

3. Midterm Exam: 25%

4. Final Exam: 50%

Reference Books and Materials

Main textbooks:

- Stock, James and Mark W. Watson, *Introduction to Econometrics*.

- Cameron, Colin and Pravin Trivedi. 2005. *Microeconometrics: Methods and Applications.*

Other useful econometrics books:

- Angrist, Joshua and Jörn-Steffen Pischke. 2009. *Mostly Harmless Econometrics*.

- Cameron, Colin and Pravin Trivedi. 2009. *Microeconometrics Using Stata*.

The students are also required to read empirical papers related to this course. The papers can be downloaded from blackboard.