

Econometrics

Objectives of the Course

This course provides an introduction to econometric methods including classical linear regression model as well as variations where ideal conditions are not met and classical linear regression is not appropriate. Then it moves to times series analysis. Furthermore, it deals with more advance topics such as a simple panel data analysis and discrete choice model.

For each topic, the class starts with examples, basic theories and methods, and then moves to empirical applications. So our goal of this class is that students not only understand sufficient econometric theory to move to the next level for more advanced topics, but also are able to analyze real economic data through hands-on experience. The emphasis will be on causality inference and the analysis of the effectiveness of policy.

During sections, a TA will provide materials that supplement lectures, and go over problem sets. Also computing helps can be provided.

Prerequisite

This course does not require any prerequisite. However, students are expected to have intermediate-level knowledge of basic algebra, calculus, and statistics.

Course Requirements

Problem sets & Project (20%)

: You are welcome to work in groups but the work you hand in must be yours.

Exams : Two Midterm exams (20% each) and a Final exam (40 %),

Computing

There are many computing programs such as EViews, STATA, MATLAB, and so on. However, I encourage you to use STATA. You can find some computing resources at <http://www.ats.ucla.edu/stat/stata/> and <http://www.ats.ucla.edu/stat/stata/webbooks/>.

Textbooks

Required textbook

: J.M. Wooldridge (2002), *Introductory Econometrics*, 2nd edition, Thomson South-Western College Reference

: P.A. Kennedy (1998), *A Guide to Econometrics*, 5th edition, MIT Press. (for good intuition)

: 山本 拓 (1995), 計量経済学, 新世社

Homepage : <http://www.e.u-tokyo.ac.jp/~yun/metrics/metrics.htm>

(Login ID: metrics, Password:)

Contact information

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Office Hours : please check it out at the Econometrics website

Course outline (subject to change)

- **Lecture** : Monday (16:50-18:30) and Wednesday (10:20-12:00)
- **Section** : Wednesday (16:50-18:30)

Note that a Todai 100 min course is about 1.5 time of a U.S. Course in terms of hours.

WK		Topics	Reading
	PART I	Regression Analysis with Cross Sectional Data	
1	4/7	Introduction and Course Overview	W1
2	4/12 & 4/14	Simple regression model	W2
3	4/19 & 4/21	Multiple Regression analysis I.	W3
4	4/26 & 4/28	Multiple Regression analysis II. Inference/Tests	W4
5	5/3 & 5/5	Holiday	
6	5/10	Multiple Regression analysis III. Further issues	W5.W6
6	<i>Wed., May 12</i>	<u>A First Preliminary Exam</u>	
7	5/17	Heteroskedasticity/ More specification and data problem	W7,8,9
	PART II	Time series Analysis	
7,8	5/19 & 5/24	Regression with Time series data I	W10, 11
8,9	5/26 & 5/31	Regression with Time series data II	W10, 11
	6/5	Serial correlation & Heteroskedasticity in Time series	W12
10	<i>Mon, June 7</i>	<u>A Second Preliminary Exam</u>	
	PART III	Advanced Topic	
10~15		Panel Data methods	W13.14
		Instrumental Variable/Endogenous/2 SLS	W15
		Simultaneous Equation Models	W16
		Limited Dependent Variable Model	W17
16	<i>Wed, July 14</i>	<u>Final Exam</u>	