

CENTRAL UNIVERSITY OF FINANCE AND ECONOMICS  
CHINA CENTER FOR HUMAN CAPITAL AND LABOR MARKET RESEARCH

**Econometrics 2, Spring 2014**

Instructor: Chun-Wing Tse (Wing)

Teaching Assistant:

Class hours:

Place:

Office hours:

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Course description

This course is a continuation of Econometrics 1, covering the intermediate concepts of regression for cross sectional data. Panel data analysis will also be treated to illustrate the fixed effect and random effect models. This course does not aim to drill on some fancy mathematics and statistics, but emphasizes the issues of causality, endogeneity with the purpose to set up credible regression specifications. The techniques acquired are useful for Econometrics 3 and conducting empirical studies.

Textbook

We do not have a required textbook, but use a collection of lecture notes and excerpts from textbooks. Hence, it is important for you to attend lectures and make a clear set of notes.

We will rely substantially on the following set of lectures, which can be accessed from the following website:

\* <http://www.soderbom.net/metrix2.htm>

The textbook used in Econometrics 1 is a useful reference.

\* J. M. Wooldridge. *Introductory Econometrics – A Modern Approach*. South-Western, College Publishing, 4<sup>th</sup> edition

Another textbook, which I highly recommend, is also useful for this course.

\* Angrist and Pischke. *Mostly Harmless Econometrics, An Empiricist's Companion*. exam to

Grading

Mid-term 30%

Final Exam 35%

Assignment 15%

Quiz 20%

Software

The assignments will have both conceptual and computer problems, which require heavy use of STATA.

## Topics

1. Causality and Endogeneity
2. Instrumental variables and Two-stage least squares
3. Binary variables and limited dependent variables
4. Censoring and truncation
5. Heckman Selection model
6. Maximum likelihood estimations
7. Panel data and dynamic panels
8. Differences-in-differences approach

If time allows, we will also cover

9. Monte Carlo Simulation and bootstrapping
10. Measurement Error and Clustering