計量經濟理論二 Econometric Theory II (ECON 8010)

黃景沂 Ching-I Huang
朱建達 Jian-Da Zhu

Lecture Time and Location: Wednesdays, 13:10 – 16:20 at 社科608

Discussion Section: Thursday, 16:30 – 18:20 at 社科608

Office: 社會科學院頤賢館 857 (Huang) / 717 (Zhu)

Office Hour: Thursdays, 10:30 – 11:30 (Huang)/ Wednesdays, 11:00-12:00 (Zhu)

Office Phone: (02)3366-8356 (Huang)/ (02)3366-8377(Zhu)

E-mail: chingihuang@ntu.edu.tw (Huang)/jdzhu@ntu.edu.tw (Zhu)

Course page: `http://homepage.ntu.edu.tw/~chingihuang/teaching/Metrics2022/`

Teaching Assistant: 徐湘羚 d05323005@ntu.edu.tw

Course Description

The primary goal of this course is to familiarize students with econometric analysis of cross session and panel data. We will also discuss the identification problem. There is no formal prerequisite. However, you are expected to have known the basic asymptotic theories, such as the Law of Large Numbers and the Central Limit Theorem.

Textbooks

One textbook is *Econometric Analysis of Cross Section and Panel Data* by Jeffrey M. Wooldridge (MIT Press 2010). An electric version of the book is accessible from the NTU Library web page. This book and its *Student's Solutions Manual and Supplementary Materials* are both reserved in the Social Science Library (辜振甫先生紀念圖書館).

The other textbook is *Econometrics* by Bruce E. Hansen, which can be downloaded from his website `https://www.ssc.wisc.edu/~bhansen/econometrics/`.

In addition, we will use *Identification Problems in the Social Sciences* by Charles F. Manski (Harvard University Press 1995) to briefly introduce the identification problem. You can find a scanned version on NTU COOL.

Grades

Grades will be determined by problem sets (20%), a midterm exam (40%), and a final exam (40%). The scheduled dates for the exams are **April 7** and **June 2**. There will be NO make-up exam. Please make sure you can attend the exams before enrolling this course.

Topics

- Introduction and Background (2/16)

- Non-Parametric Identification Problems (Manski, Ch1, 2) (2/23)

- M-Estimation (Wooldridge, Ch12; Hansen, Ch22, 23) (3/2, 3/9)

- Maximum Likelihood Methods (Wooldridge, Ch13) (3/16, 3/23)

- Generalized Method of Moments (Wooldridge, Ch14; Hansen, Ch13) (3/30)

- Panel Data Econometrics (Wooldridge, Ch10; Hansen, Ch17)

- Binary Response Models (Wooldridge, Ch15, 16; Hansen, Ch25)

- Nonparametric Estimation (Hansen, Ch19, 20)