Chinese University of Hong Kong, First semester 2018-2019 ECON3121B

Introductory Econometrics

Meeting Time: Monday 8:30AM - 11:15AM

Meeting Room: Esther Lee Bldg LT3

Instructor: Chih-Sheng Hsieh (cshsieh@cuhk.edu.hk)

Office: Esther Lee Bldg room 911

Instructor Office Hours: Thursday 10:00 am to 12:00 pm or by appointment at ELB 911

TA: Kang Zhou (kangzhou@link.cuhk.edu.hk)

TA Office Hours: Monday 4:00 pm to 6:00 pm or by appointment at CKB 514

Course Overview

This course is designed to help students to be familiar with the concepts of econometrics and their application to data. The course will discuss the regression analysis extensively. Specific topics and extensions will include multivariate regression, dummy variables (including binary dependent variables), heteroscedasticity, time series, and simultaneous equations. The emphasis will be on understanding the intuition behind various econometric procedures and at the same time applying them to real economic data using statistical software like Excel, R, and STATA.

Textbook:

Introductory Econometrics: A Modern Approach (6th edition) by Jeffrey Wooldridge, Cengage Learning 2016.

The book is available in the Commercial Press - University Bookstore, CUHK. I highly recommend every student to own this textbook as the lecture will follow the book closely and you will use the textbook for doing assignments and preparing exams.

Requirements:

- 1. Four problem sets (40%).
- 2. Midterm exam (20%).
- 3. Final exam (40%).
- 4. Class attendance (5% bonus). You are encouraged to come to class. We will record attendance in every lecture. Your bonus point is proportional to your attendance.

Key rules:

1. Problem sets will go out on the scheduled dates, and you will have two weeks to do them. Problem sets will be collected on class of the due date. Late problem sets will be penalized. If you choose

- to hand in late, a 50% discount is applied for each day after the due date.
- 2. The final exam will be conducted centrally by the Registration and Examination Section (RES).
- 3. As a general rule, I do not give make-up exams. However, if there are exceptional Circumstances that make it impossible for you to take an exam at the scheduled time you should contact me **before** the exam. For medical emergency, you should provide documentation from medical doctor or hospital.
- 4. Students are responsible for announcements made in class and via E-mail.

Tentative Schedule:

W1 (Sep 3): No class due to Inauguration Ceremony

W2 (Sep 10): Introduction of regression and Review of Statistics (Ch2 Appendix B & C) (PS1)

W3 (Sep 17): Multiple regression & Ordinary Least Square (Ch3)

W4 (Sep 24): OLS and Hypothesis testing (Ch3 and Ch4, PS1 due on class, PS2 assign)

W5 (Oct 1): No class due to public holiday – National Day

W6 (Oct 8): OLS asymptotic properties (Ch5)

W7 (Oct 15): Specification issues (Ch6) (PS2 due on that week)

W8 (Oct 22): Midterm exam

W9 (Oct 29): Dummy Variables and Binary Dependent Variable (Ch7, PS3 assign)

W10 (Nov 5): Heteroscedasticity and Serial Correlation (Ch8)

W11 (Nov 12): Measurement Error, Instrumental Variable (Ch9, PS3 due on class, PS4 assign)

W12 (Nov 19): Simultaneous Equations (Ch16)

W13 (Nov 26): Time Series Analysis (Ch10 & Ch11, PS4 due on that week)

Software:

The statistical software will be used extensively in the course. One reasonably good introduction of STATA is http://data.princeton.edu/stata/. Similarly, you can find R introduction in http://data.princeton.edu/R/. I will also do some software demonstrations in class. TA will give tutorial sessions and hold office hour to help you to learn software. BUT do not expect either of us to give you command-by-command instruction to your problem sets before they are turned in.

Access STATA in ELB 916 Computing Lab:

There are two things to note before you can use the computer in the Lab:

- (1) To enter the computing lab, you need to use your student card.
- (2) To log in computers, you need to input your "Computing ID" and your "PC LAN password". Please note that your PC LAN password is different from your CWEM password. Your PC LAN password is provided to you from ITSC with a Computing Accounts Information Slip.

Honesty in Academic Work

Please visit the following website for details of university policy on Honesty in Academic Work: http://www.cuhk.edu.hk/policy/academichonesty/. Every assignment must be accompanied by a signed declaration of originality