Chinese University of Hong Kong, Second semester 2017-2018 ECON3121C Introductory Econometrics

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Meeting Time: Tuesday 10:30AM - 1:15PM

Meeting Room: Esther Lee Bldg LT2

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: Yichuan Hu (<u>ychu@link.cuhk.edu.hk</u>)

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

TA Office Hours:

Yichuan Thursday 3:00 pm to 5:00 pm or by appointment at CKB 513

Kang Monday 4:00 pm to 6:00 pm or by appointment at ELB 1017

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 docutor or hospital.
- 4. Students are responsible for announcements made in class and via E-mail.

Tentative Schedule:

W1 (Jan 9): Introduction of regression and review of Statistics (Ch2 & Appendix B)

W2 (Jan 16): Review of Statistics (Appendix B & C) (PS1 assign)

W3 (Jan 23): Multiple regression & Ordinary Least Square (Ch3)

W4 (Jan 30): OLS and Hypothesis testing (Ch3 and Ch4, PS1 due)

W5 (Feb 6): OLS asymptotic properties (Ch5) (PS2 assign)

W5 (Feb 13): Specification issues (Ch6)

W7 (Feb 20): No class due to Lunar New Year Vacations (PS2 due on Feb 23)

W8 (Feb 27): Midterm exam

W9 (Mar 6): Dummy Variables and Binary Dependent Variable (Ch7, PS3 assign)

W10 (Mar 13): Heteroscedasticity and Serial Correlation (Ch8)

W11 (Mar 20): Measurement Error, Instrumental Variable (Ch9, PS3 due)

W12 (Mar 27): Simultaneous Equations (Ch16, PS4 assign)

W13 (April 3): Time Series Analysis I (Ch10 & Ch11)

W14 (April 10): Time Series Analysis II (Ch10 & Ch11)

W15 (April 17): miscellaneous topics and exam review (PS4 due)

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