### **ECON 3121C INTRODUCTORY ECONOMETRICS**

The Chinese University of Hong Kong Spring 2019

#### **Course Information**

Instructor: Chaoran GUO (cguo@cuhk.edu.hk), Esther Lee Building 1012

Office Hours: Tuesday 4:30 - 5:30PM or by appointment

Lectures: Tuesday 10:30AM - 1:15PM, ELB LT2

Teaching Assistant: Jingyi WANG (WangJingyi@link.cuhk.edu.hk)

Office hours: Tuesday 9:30 - 10:30AM or by appointment, Esther Lee Building 1017

Tutorial Hours: TBA (optional, but highly encouraged)

## **Course Description**

The purpose of this course is to provide an introduction to the statistical methods that economists use to test economic theory and interpret economic data. We begin with an extended discussion of simple and multiple regression analysis. More advanced topics will be tackled later in the semester, such as dummy variables, heteroscedasticity, instrumental variables, binary choice models, panel data and time series. Problem sets will provide students practical experience in applying econometric techniques to real world data.

Upon successful completion of this course, students should demonstrate their mastery of a broad knowledge of regression analysis relevant for analyzing economic data, theoretical background for the standard econometric methods used in empirical analysis, and skills of applying Stata in regression analyses of empirical data.

#### **Textbook**

Wooldridge, Jeffrey M., *Introductory Econometrics: A Modern Approach*, Cengage Learning, 6th edition, 2016.

## Grading

Grade will be determined by class attendance (5%), problem sets (25%), midterm exam (30%) and final exam (40%). The final exam will be **cumulative**, but will emphasize materials not previously examined.

#### Stata

Students in this course will be expected to use Stata to complete at least some portion of your homework assignments. One good introduction can be found at http://data.princeton.edu/stata/. I will do some Stata demonstration in class. Your TA will also be available to provide help with programming and advice using Stata in tutorials. Stata is available at the computer lab (916) in ELB 9/F, with your "Computing ID" and "PC LAN password". You may use whatever program you prefer (SAS, R, etc), but we cannot help with other software programs if you choose to use them.

## **Key Dates**

**Problem sets**: There will be a total of 4 problem sets. Problem sets will be posted on the course website, about 1-2 weeks before they are due. The due dates will be on a class day, and problem sets are due at the <u>start</u> of class. No late problem sets will be accepted.

Midterm exam: will be on Feb 26, in class.

**Final exam**: Date TBA by the University. Early departure before the end of the exam period is NOT a valid reason for absence from the final exam. Ensure that you are available on the exam dates, as exams will **NOT** be rescheduled.

**Add/Drop**: Students are advised to strictly observe the official deadline for add/drop. The department, not the course teacher, will handle every late add/drop application. Late add/drop application is rarely approved; in those rare approvals, they will be based on extremely special reasons beyond students' control. Objective and substantial proofs are required. Failure to observe the deadline or negligence in checking the official course enrollment systems will not be accepted as reasons for late drop.

## **Email Policy**

Be sure to include the course title and section number in the subject line. This would allow me to prioritize your emails. I will make every effort to respond within 48 hours on business days. Please send a reminder if you haven't heard from me after 48 hours. Email correspondence is convenient only for short questions and answers. If your questions involve mathematical calculations, please come to office hours.

## **Academic Honesty**

Attention is drawn to University policy and regulations on honesty in academic work, and to the disciplinary guidelines and procedures applicable to breaches of such policy and regulations.

Details may be found at http://www.cuhk.edu.hk/policy/academichonesty.

# **Tentative Course Outline**:

The weekly coverage might change as it depends on the progress of the class. However, you must keep up with the course materials.

Week	Date	Content
Week 1	Jan 8	<ul><li>Introduction and Simple Regression Model-I</li><li>Reading assignment: Chapter 1 &amp; 2</li></ul>
Week 2	Jan 15	<ul><li>Simple Regression Model-II</li><li>Reading assignment: Chapter 2</li></ul>
Week 3	Jan 22	<ul><li>Simple Regression Model-III</li><li>Reading assignment: Chapter 2</li></ul>
Week 4	Jan 29	<ul><li>Multiple Regression Model-I</li><li>Reading assignment: Chapter 3</li></ul>
Week 5	Feb 5	No Class - Public Holiday
Week 6	Feb 12	<ul><li>Multiple Regression Model-II</li><li>Reading assignment: Chapter 3</li></ul>
Week 7	Feb 19	<ul><li>Multiple Regression Model-III</li><li>Reading assignment: Chapter 4</li></ul>
Week 8	Feb 26	Midterm Exam
Week 9	Mar 5	<ul><li>Dummy Variables</li><li>Reading assignment: Chapter 7</li></ul>
Week 10	Mar 12	<ul><li>Heteroskedasticity</li><li>Reading assignment: Chapter 8</li></ul>
Week 11	Mar 19	<ul><li>Panel Data</li><li>Reading assignment: Chapter 13-14</li></ul>
Week 12	Mar 26	<ul><li>Instrumental Variables</li><li>Reading assignment: Chapter 15</li></ul>
Week 13	Apr 2	No Class - Reading Week
Week 14	Apr 9	<ul><li>Binary Choice Models</li><li>Reading assignment: Chapter 17</li></ul>
Week 15	Apr 16	<ul><li>Review</li><li>Reading assignment: Review for Final Exam</li></ul>