

## **BSE3703 Econometrics for Business I**

Instructor: Dr. Jiyeon Lee (jiyeon@nus.edu.sg)

Class time and venue: Mon 18:30 - 21:30, BIZ1 02-02

Office hours: Consultation will be conducted on zoom upon request.

### **Course Description**

This module introduces regression and related methods for analysing data in economics, business, and associated disciplines. Topics include linear regression, ordinary least squares estimator, multiple regression, instrumental variables regression, natural experiment, regression discontinuity, and difference-in-difference estimation. The mathematical part of the econometric theory will be introduced only as needed and will not be a central focus of this course.

### **Main Reference**

Woolridge J.M. (2019) Introductory Econometrics: A Modern Approach, 7<sup>th</sup> edition, South-Western.

### **Other Reference**

Angrist, J. D., & Pischke, J. S. (2008). Mostly harmless econometrics: An empiricist's companion. Princeton University Press.

Angrist, J. D., & Pischke, J. S. (2015). Mastering Metrics: The path from cause to effect. Princeton University Press.

### **Hybrid Teaching**

In-person lectures are held in BIZ1 02-02. Note that physical attendance is not compulsory. Please come to the class only if you are healthy. Live webcast of the lecture will be available on Zoom and the link can be found on LumiNUS under "Conferencing". Recording of the lecture will be uploaded on the following weekend.

### **Evaluation**

Midterm (30%), Final Test (40%), Group Project (30%)

Deliverables must be typed and submitted as a single PDF file on LumiNUS. Please name the PDF file with the following convention: "PS#\_your name.pdf, where # is the problem set number. Write your name as in your student card with your matric number in the first line of your submission.

Problem set is due on the day before the class by 23:59. In case of late submission, 25% of the point you earn will be deducted for that submission.

There will be no make-up exams.

## **Communication**

All course materials and announcements will be posted on LumiNUS. Other than that, our primary mean of communication outside the classroom will be email. Please use your NUS email address and start the subject title with “[BSE3707]”, followed by a brief phrase summarizing the topic of discussion.

## **Class Schedule (Tentative)**

Week	Class Date	Topic
1	10 Jan	Class Outline and Logistics, Introduction to Econometrics
2	17 Jan	Review of Probability and Statistics
3	24 Jan	Simple Linear Regression
4	31 Jan	Simple Linear Regression & Ordinary Least Square
5	7 Feb	Multivariate Linear Regression
6	14 Feb	More Topics on Regression
Recess Week		
7	28 Feb	Midterm (No in-person class)
8	7 Mar	Logistic Regression
9	14 Mar	Natural Experiment & Difference in Differences
10	21 Mar	Instrumental Variable Regression
11	28 Mar	Regression Discontinuity
12	4 Apr	Review
13	11 Apr	Final Test (No in-person Class)
Recess Week		
Exam Week		

## **Academic Honour Code**

Academic integrity and honesty are essential for the pursuit and acquisition of knowledge. The University and School expect every student to always uphold academic integrity and honesty. Academic dishonesty is any misrepresentation with the intent to deceive, or failure to acknowledge the source, or falsification of information, or inaccuracy of statements, or cheating at problem sets or exams, or inappropriate use of resources.