



ECON 0004: APPLIED ECONOMICS

Term 2 (Spring 2021)

(updated on 07/01/2021)

LECTURER

Dr. Dunli Li (dunli.li@ucl.ac.uk)

Student feedback and consultation hours: Thursdays, 11am-12 noon. See moodle page for Zoom link

COURSE DESCRIPTION

This course is about the analysis of data within economics, and the interpretation of empirical results. More specifically the course aims are to:

- Provide an introduction to the application of economic theory to data
- develop an understanding of simple and commonly used econometric techniques
- Impart an ability to understand and interpret results both statistically and economically
- Introduce you to widely used software in applied economics (STATA)

OBJECTIVES OF THE COURSE

At the end of the course, students should be able to:

- Design simple econometric strategies to test relationships suggested by economic theory
- Understand the statistical theory behind linear regression techniques
- Test these relationships and estimate their empirical magnitude in the data using simple econometric packages
- Understand and interpret these results and their relevance to the related economic problem

COURSE DELIVERY

This course will be delivered via a combination of synchronous and asynchronous activities. All the course material (pre-recorded videos, lecture slides, practical lectures, tutorials assignments and solutions...) will be posted on Moodle.

- **Asynchronous activities** are pre-recorded videos and resources to deliver the core content. They will be posted on Moodle in advance of live lecture sessions.
- **Synchronous activities** consist of the following:

- **Live lectures** by Dr Dunli Li in weeks 20-24, 26-30, Thursdays, 9am-10am. Livestream and recordings will be uploaded to Moodle.
- **Live practical lectures** by Dr Dunli Li and Dr Yu-Lin Lin in weeks 22, 24, 28 and 30, Fridays, 11-12am. Livestream and recordings will be uploaded to Moodle.
- **Live tutorial sessions** by your tutors in weeks 21, 23, 26, 28 and 29. See timetable for details. During tutorials, you will do a mixture of practical exercises using statistical software STATA and assessment type questions. You are required to hand in three tutorial assignments of your choice amongst tutorials 2, 3, 4 or 5. Tutorial 1 is not to be handed in. Assignments will have to be submitted by the deadline. Feedback will be provided through Turnitin. Please see the “Turnitin Guidance” notes posted on Moodle in case you need help submitting your assignment.

ASSESSMENT

- STATA empirical project, worth 20% of the overall mark.
- Coursework assessment, worth 80% of the overall mark. There are two components: Moodle MCQs and coursework written assessment.
- More detailed instructions will be announced on Moodle.

TEXTBOOKS

There is no single textbook for the course. I would recommend the following introductory text on econometrics:

Jeffrey Wooldridge, “Introductory Econometrics: A modern approach”, 7th edition
(see moodle page for the link to the textbook)

All suggested readings that are not in Wooldridge will be posted on Moodle.

COURSE OUTLINE (more readings might be provided.)

Lecture 1: Introduction to data, economic modelling and econometrics

Suggested readings:

- Wooldridge, Chapter 1

Lecture 2: The regression model and OLS estimator

Suggested readings:

- Wooldridge, Sections 2-1,2-2,2-3, 3-3b

Lecture 3: Properties of OLS estimator and hypothesis testing

Suggested readings:

- Wooldridge, Sections 2-5, 4-1, 4-2, 4-3

Lecture 4: Multiple regression and functional form issues

Suggested readings:

- Wooldridge, Sections 3-1, 3-2, 3-4, 3-5, 4-4, 6-2, 7-1, 7-2, 7-3, 7-4

Lecture 5: Causality, experimental and quasi-experimental evidence

Suggested readings:

- J. Angrist and J. S. Pischke (2008), “The experimental ideal”, from *Mostly Harmless Econometrics: An Empiricist’s Companion*
- Schweinhart, L.J. et al. (2005), “The High/Scope Perry Preschool Study Through Age 40: Summary, Conclusions and Frequently Asked Questions”
- Duflo, E. (2001) “Schooling and labour market consequences of school construction in Indonesia”, *American Economic Review* 91: 795--813

Lecture 6: Consumer demand

Suggested readings:

- Deaton, A. and J. Mullbauer (1980), “Consumer demand”, from *Economics and Consumer Behavior*

Lecture 7: Consumption and saving

Suggested readings:

- N. Gregory Mankiw (2015), “Understanding Consumer Behaviour”, chapter 16, *Macroeconomics*

Lecture 8: Employment and Minimum Wages

Suggested readings:

- Card, D. and A. Krueger (1994), “Minimum wages and employment: A case study of the fast-food industry in New Jersey and Pennsylvania”, *American Economic Review*, Vol. 84:4

Lecture 9: Labour supply

Lecture 10: Review