

THE UNIVERSITY OF HONG KONG
HKU BUSINESS SCHOOL
ECON2280 – Introductory Econometrics

GENERAL INFORMATION

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** Please send emails to us directly from your email account instead of using the email facility in Moodle.*

Pre-requisites:

ECON1210 Introductory microeconomics; *and* ECON1280 Analysis of economic data *or* STAT1601 Elementary statistical methods *or* STAT1602 Business statistics *or* STAT1603 Introductory statistics *or* STAT2601 Probability & statistics I *or* STAT2901 Probability & statistics: Foundations of Actuarial Science

Mutually exclusive courses:

STAT3614 Business Forecasting
STAT3907 Linear models and Forecasting

Co-requisites: None

Course Website: Available through Moodle at HKU Portal e-learning

COURSE DESCRIPTION

Econometrics is the branch of economics that formulates regression models to analyze social science and business data. The objective of this course is to prepare students for basic knowledge of carrying out data analysis using econometric models. The course will cover regression model formulation and estimation, and using these models to test hypotheses and make forecasts. Both cross sectional and time series regression models are covered.

COURSE OBJECTIVES

1. To acquire and internalize knowledge of statistical methods used by economists.
2. To apply these methods in a variety of real world data (e.g. microeconomics, macroeconomics, business, government policies, etc.)
3. To interpret and explain regression results to end users.

COURSE LEARNING OUTCOMES	
Course Learning Outcomes	Aligned Faculty
CLO1. Formulate regression models to describe the economic relationship among variables.	Goal# 1, 2
CLO2. Understand the desirable properties of estimators.	Goal# 1, 2
CLO3. Estimate and test hypotheses about underlying economic relations.	Goal# 1, 2, 3
CLO4. Understand the implications for estimation results under classical linear model assumptions and the consequences of their violations.	Goal# 1, 2
CLO5. Apply econometric software and statistic tables to conduct regression analyses.	Goal# 1, 2
CLO6. Interpret and explain regression outputs.	Goal# 3, 5
<p>* The five Faculty Goals are as follows:</p> <p>FLO1 Acquisition and internalization of knowledge of economics & finance FLO2 Application and integration of knowledge FLO3 Inculcating Professionalism and Leadership FLO4 Developing global outlook FLO5 Mastering communication skills FLG6 Cultivating leadership</p>	

COURSE TEACHING AND LEARNING ACTIVITIES			
Course Teaching and Learning Activities		Expected contact hour	Study Load (% of study)
Lectures		36	30%
Tutorials		12	10%
Self-study		72	60%
Total		120	100%
Assessment Methods	Brief Description (Optional)	Weight	Aligned Course Learning Outcomes
A1. Assignments		20%	CLO1-6
A2. Midterm Exam		30%	CLO1-6
A3. Final Exam		50%	CLO1-6

STANDARDS FOR ASSESSMENT

Course Grade Descriptors¹

A+, A, A-	Strong evidence of superb ability to fulfill the intended learning outcomes of the course at all levels of learning: describe, apply, evaluate, and synthesis.
B+, B, B-	Strong evidence of the ability to fulfill the intended learning outcomes of the course at all levels of learning: describe, apply, evaluate, and synthesis.
C+, C, C-	Evidence of adequate ability to fulfill the intended learning outcomes of the course at low levels of learning such as describe and apply but not at high levels of learning such as evaluate and synthesis.
D+, D	Evidence of basic familiarity with the subject.
F	Little evidence of basic familiarity with the subject.

REQUIRED/RECOMMENDED READINGS & ONLINE MATERIALS

Required Textbook:

Wooldridge, Jeffrey M (2020). *Introductory Econometrics: A Modern Approach*. 7th edition, Cengage Learning.

Note 1: With permission from the publisher, the datasets and student solution manual of the textbook have been posted in our course's Moodle page (as zip file).

Note 2: It is your responsibility to acquire the 7th edition of the textbook. The instructor and TA are prohibited from uploading end-of-the-chapter questions in Moodle due to copyright restrictions.

Note 3: A copy of the textbook is put on three-hour reserve in the Main Library.

¹ Assessment rubrics for each assessment are the same as in the course grade descriptors.

REQUIRED/RECOMMENDED READINGS & ONLINE MATERIALS

COURSE CONTENT AND TENTATIVE TEACHING SCHEDULE

Nature of Econometrics and Economic Data	Chapter 1
The Simple Regression Model	Chapter 2
Multiple Regression Analysis: Estimation	Chapter 3
Multiple Regression Analysis: Inference	Chapter 4
Multiple Regression: Further Issues	Chapter 6
Regression Analysis with Qualitative Information	Chapter 7
Heteroskedasticity	Chapter 8
More on Specification and Data Issues	Chapter 9
Basic Regression Analysis with Time Series	Chapter 10
<u>Optional topics</u>	
Multiple Regression Analysis: OLS Asymptotics	Chapter 5
Further Issues in Using OLS with Time Series Data	Chapter 11
Serial Correlation and Heteroskedasticity	Chapter 12
Panel Data Regression	Chapter 13

Note: Some topics from appendices A, B, C of the textbook will be covered in the course. You are only responsible for the topics covered in the lecture.

COURSE POLICIES

1. Lecture PPT files will be posted on Moodle before class. Please download and print them out before the lecture.
2. The video recording of the lectures will be posted in Moodle after class.
3. Tutorials start in the *third* week of class. The TA will get in touch with you about scheduling the time slots. You are expected to come to the tutorials *fully prepared*, i.e. you have already worked out the problem set before the tutorials. In this way, you can follow better and the TA can spend more time to discuss the questions with you. The tutorials are dedicated to working out the tutorial questions and discussion of concepts. The TA will not give you a mini-lecture to summarize previous week's lecture.
4. Assignments: **All assignments must be typed**. This is a course policy that applies to all subclasses in all academic years. Please learn how to use MS Word's equation editor.
5. Econometric software:

We will use an econometric software called STATA to run regression in this course. The TA will teach you how to use STATA during tutorials. STATA can be accessed in our computer lab. You can refer to some online resources on STATA:

<https://data.princeton.edu/stata>
<https://econweb.ucsd.edu/~elib/120b/Stata%20Tutorial.pdf>

Note: Knowledge of econometric software commands is not required in the exams. However, you are expected to know how to read standard regression outputs generated by STATA.

6. Midterm examination policy

No supplementary midterm examination will be given. If you have a legitimate reason for missing the midterm, its weight will be added to the final exam. The only acceptable reasons are 1) sickness and 2) time clash with other midterm exams. If you cannot attend the midterm exam due to sickness, you must inform the instructor or TA in person or via email, phone call or voice message **before** the exam starts. You must provide a medical certificate to verify that you have sought medical treatment **prior** to the exam and that you are unfit to take it.

7. Academic Conduct

The University Regulations on academic dishonesty will be strictly enforced! Please check the University Statement on plagiarism on the web: <http://www.hku.hk/plagiarism/>

Academic dishonesty is behavior in which a deliberately fraudulent misrepresentation is employed in an attempt to gain undeserved intellectual credit, either for oneself or for another. It includes, but is not necessarily limited to, the following types of cases:

a. Plagiarism - The representation of someone else's ideas as if they are one's own. Where the arguments, data, designs, etc., of someone else are being used in a paper, report, oral presentation, or similar academic project, this fact must be made explicitly clear by citing the appropriate references. The references must fully indicate the extent to which any parts of the project are not one's own work. Paraphrasing of someone else's ideas is still using someone else's ideas, and must be **acknowledged**.

b. Unauthorized Collaboration on Out-of-Class Projects - The representation of work as solely one's own when in fact it is the result of a joint effort. Where a candidate for a degree or other award uses the work of another person or persons without due acknowledgement:

- (1) The relevant Board of Examiners may impose a penalty in relation to the seriousness of the offence;
- (2) The relevant Board of Examiners may report the candidate to the Senate, where there is *prima facie* evidence of an intention to deceive and where sanctions beyond those in (1) might be invoked.

Plagiarism will automatically result in at least a zero score in the plagiarized assignment or examination. Serious cases will be referred to the University's Disciplinary Committee.