

Introduction to Econometrics (ECON 3334, Spring 2019)**Department of Economics, HKUST****Instructor Information:**

Instructor: WANG, Peng (pwang@ust.hk)
Office: Rm 6082, LSK Bldg
Phone: 2358-7630
Office Hours: by appointment

Lectures:

(L1) Tuesday and Thursday 13:30 - 14:50, Rm 1007, LSK Bldg.
(L2) Tuesday and Thursday 15:00 - 16:20, Rm 1007, LSK Bldg.

Tutorial Sessions: TA: TSUI, Peter. (ecpeter@ust.hk)

(T1) Monday 18:00 - 18:50, Rm 2504, Lift 25-26.
(T2) Monday 15:00 - 15:50, Rm 1005, LSK Bldg.

The tutorial is **not** weekly. The TA will make an announcement through Canvas when there is a tutorial session.

Textbook: Stock, James and Mark Watson (2014) *"Introduction to Econometrics."* 3rd Edition, Addison Wesley. You may also use any other edition of the same title, including the Brief Edition. We also use the materials in the Companion Website:

https://wps.pearsoned.com/aw_stock_ie_3/

Course Web Site: <http://canvas.ust.hk>

Students should be able to access the course website for ECON 3334 on Canvas using their ITSC accounts. I will post the teaching material before each class. You shall also check the course website at least twice a week for important announcement such as the homework information.

Course Description:

This course will introduce students to econometric techniques and their applications in economic analysis. It begins with a review of probability and statistics, followed by linear regression models with one regressor, linear regression models with multiple regressors. Emphasis will be put on practical issues in econometric analysis of cross-sectional data. The free software Gretl will be used for computer-based calculation.

(Gretl is available at: <http://gretl.sourceforge.net/>)

Prerequisites:

Basic statistics or consent of instructor.

Course Requirements:

Homework (15%): There will be about 5 problem sets, assigned during the semester. These problem sets focus on computational and analytical exercises. Students may work in groups, but each student must submit his/her own solution. **Students submit their solutions through Canvas.** Main solution files must be in Microsoft Word or PDF format. Data files must be read by Microsoft Excel. The due dates will be specified in each assignment. **Do double-check that you have clicked the "submit" button after you upload your solutions. Email submissions will not be accepted.** Late submission will be not be accepted unless you have a verifiable medical reason.

Midterm (30%): **Date:** March 19th (Tuesday). **Time and Location:** the same as the lecture. Closed books and notes. Mute your phones. Do not bring your own cheat sheet. I will attach one formula sheet and scratch paper to the exam paper. Do not use smart phones, tablets, or laptop computers. Non-programmable calculators may be used. The midterm will cover Chapter 1-4 of the textbook.

Final (55%): **Time and Location:** TBA. Same rule as the midterm. The final will be cumulative and cover all course materials.

Exam Policy: There will be no make-up exams for the midterm. If you miss the midterm, you will receive zero for that exam. The only exception is a verifiable medical reason, in which case the weight of the midterm will be moved to the final exam. If you miss the final exam, you will receive an "F"(fail) for the course. The only exception is that you successfully apply a make-up exam formally through the school. In such a case, I will allow you to do a make-up exam. There is zero tolerance of cheating in the exam. The case of cheating will be reported to both the department and the school level. We will check your **school ID cards** during all exams.

Re-grading Policy: Contact your TA regarding any grading issue within one week from the time the grade is released. Re-grading of exams will not be allowed if they are written in pencil.

Course Intended Learning Outcomes: Upon completion of the course, you will be able to:

1. Weight the significance of key assumptions used in regression models, and explain the relationship between those assumptions and properties of estimators.
2. Construct an appropriate regression model to analyze a given economic data set, and then conduct statistical inference and interpret the results.
3. Use the statistical software Gretl to conduct econometric analysis.
4. Collect data set to conduct empirical analysis, and provide answers to economic questions.
5. Present your understanding of certain economic problems verbally and in writing, and use empirical results to justify your explanation.

Tentative Schedule:

	Date	Day	Topic	Reading
1	Jan.31	Thu	Topic 1: Introduction	Ch.1
2	Feb.12	Tue	Topic 2: Review of probability	Ch.2
3	Feb.14	Thu		Ch.2
4	Feb.19	Tue		Ch.2
5	Feb.21	Thu	Topic 3: Review of statistics	Ch.3
6	Feb.26	Tue		Ch.3
7	Feb.28	Thu		Ch.3
8	Mar.5	Tue	Topic 4: Linear regression with one regressor: estimation	Ch.4
9	Mar.7	Thu		Ch.4
10	Mar.12	Tue		Ch.4
11	Mar.14	Thu		Ch.4
12	Mar.19	Tue	Mid-term exam (in class, covers Ch.1-4)	
13	Mar.21	Thu	Topic 5: Linear regression with one regressor: inference	Ch.5
14	Mar.26	Tue		Ch.5
15	Mar.28	Thu	Topic 6: Linear regression with multiple regressors: estimation	Ch.6
16	Apr.2	Tue		Ch.6
17	Apr.4	Thu		Ch.6
18	Apr.9	Tue	Topic 7: Linear regression with multiple regressors: inference	Ch.7
19	Apr.11	Thu		Ch.7
20	Apr.16	Tue		Ch.7
21	Apr.25	Thu	Topic 8: Nonlinear regression functions	Ch.8
22	Apr.30	Tue		Ch.8
23	May.2	Thu		Ch.8
24	May.7	Tue	Topic 9: A guide for empirical analysis	Ch.9
25	May.9	Thu		Ch.9

Remark: no classes on Feb 5, 7, Apr 18, 23 due to public holidays or mid term break.