Department of Economics
Chinese University of Hong Kong

ECON3121 INTRODUCTORY ECONOMETRICS
Spring 2021

Instructor Information:
Instructor: Xun (Sean) Lu
Office: Room912 ELB
Office Hour: Monday 11:30am-12:30pm (or by appointment, or any time you can find me)
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Teaching Assistant (TA) Information:
TBA

Course Overview: Econometrics bridges the gap between economic theory and real-world empirical data. This course introduces you to econometric techniques and their applications in economic analysis. It focuses on linear regression with one regressor and linear regression with multiple regresssors. It also introduces more advanced topics, such as instrumental variable estimation, to handle the endogenous problem. The emphasis is on practical issues in econometric analysis of cross-sectional data. Stata will be used for computer-based calculations.

Prerequisites
Basic statistics or consent of instructor

Textbook
Required:
Stock, James and Mark Watson. *Introduction to Econometrics*. (4th edition), Pearson.

Recommended:
Jeffrey M. Wooldridge. *Introductory Econometrics*. (7th edition), South-Western.
* This book is more difficult than the one by Stock and Watson, and is recommended for students who are not afraid of challenges.

Course Webpage
I will distribute materials for this class through Blackboard, so please make sure to check Blackboard at least twice per week for announcements and postings.

Lectures
Tentatively, the classes will be conducted online, using online platform, zoom. When the pandemic stabilizes, the lecture will be conducted in a mixed mode, in which case you are allowed to attend the classes face-to-face or online.
Please make sure to attend all the lectures. There is a lot of information in the book, and my job is to explain the most important topics during class (which turn out to be the ones I focus on for exams). You are responsible for all material covered during lectures. Also, I may check attendance and give bonus points. I will post the lecture notes several days before the lectures. It will be extremely helpful to read the notes in advance.

Tutorials
We also have about 8 tutorials for this class that is separate from the lectures. The TA will teach you how to use Stata and solve some practice questions. The tutorial is NOT weekly. Each time, the TA will announce it through Blackboard and send emails several days before the tutorial. More details will be provided.

Computer Package
We will use the statistic software Stata and Python to analyze data.
-You do NOT need to buy Stata. Stata is available at the computer lab (916) in ELB 9/F, with your "Computing ID" and "PC LAN password". More details will be provided on how to access Stata remotely. One good introduction to Stata can be found at http://data.princeton.edu/stata.
-Python is free.

Problem Sets
There will be six problem sets, each of which will carry a weight of 3% towards the final grade. The lowest problem set grade will be dropped. The problem sets will involve both theoretical and empirical work. Group study and free discussion are encouraged. But you should submit your own answers.

Each problem set is to be submitted online. Problem sets will not be accepted by email or in department mailboxes. If you need to hand in a problem set early, then please make arrangements with your TA before the problem set is due. Late submission of problem sets will generally not be accepted!

Examinations
There will be one mid-term exam and one final exam. The mid-term carries a weight of 30%. The final exam will have 55% weight. The final will be cumulative and cover all the course materials.

All exams will be closed book/note. Please bring a basic scientific calculator (non-programmable) to the exams. There will be no make-up exams. If you miss a midterm, you will receive a zero. The only exception is a verifiable medical reason, in which case the weight of the missed mid-term will be shifted to the final exam.

Finally, if you are caught cheating during an exam, you will receive a zero on the exam, may fail the course, and may be subject to further disciplinary action by CUHK.

Performance Evaluation

The grades in this course will be based on the following:

Assessment Activities	Weighting
Six problems sets	15%
Mid-term	30%
Final Exam	55%

Re-grading Policy

All grading problems must be rectified within one week from the time a problem set or an exam is returned. Re-grading of exams may not be allowed if they were written in pencil. Please talk to the TA first regarding the re-grading. If there are some further issues, you can contact the instructor.

Office Hours/Email

Please drop by during my office hours or the TA's office hours if you need help with anything. Send us an email if you have any concerns; we will try to respond within 24 hours. Please note, however, that emails are not the proper venue to answer particular problem set questions; we can help you with that during office hours or the tutorial.

Tentative Schedule

Please note here is that the schedule below is tentative, meaning that I may need to change things as the session progresses. Therefore, please **DO NOT** make any travel plans or other commitments based on this schedule, since I may change the day of the midterm.

Topics	**Reading**
Topic 1: Introduction to Econometrics	SW Ch.1
Topic 2: Simple linear regression: Estimation	SW Ch.4
Topic 3: Simple linear regression: Inference	SW Ch.5
Topic 4: Multiple regression: Estimation	SW Ch.6
Mid-term exam	
Topic 5: Multiple regression: Inference	SW Ch.7
Topic 6: Nonlinear regression function	SW Ch.8
Topic 7: Assessing studies based on multiple regressions	SW Ch.9
Topic 8: Instrumental Variables	SW Ch.12

- 'SW' stands for Stock and Watson (4th edition). You should read **the entire chapter**, but particularly focus on the sections in each chapter that contain the material we cover during the lectures.

- This schedule is tentative; I may need to adjust it as the session progresses. **DO NOT** make travel plans or other commitments based on this tentative schedule since I may move the Midterm to a different day.