北京大学 汇丰商学院
Peking University HSBC Business School

Econ 532
Applied Econometrics
Module 2, 2018-2019

Course Information

Instructor: Qian Chen
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Office Hour: Tue 2-4pm

Teaching Assistant: TBA
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Classes:
Lectures: Tue & Fri 10:30-12:20(International Students), 13:30-15:20(Session E)
Venue: PHBS Building, Room 229(International Students), 319 (Session E)

Course Website:
If any.

1. Course Description

1.1 Context

Course overview:

This is a required course for the master students in Economics and related areas. It aims to introduce skills that are useful for applied research and further studies. Students will learn how to use econometric theories and methods to analyze a variety of real world problems in economics, finance and other fields. Topics covered include linear regression, prediction, time series and panel data analysis, nonlinear models and others. Emphasis will be placed on the analysis of empirical questions using actual datasets and statistical packages.

Prerequisites:

Math, Matrix Algebra, Probability distribution, Statistics, Advanced Econometrics I and II

1.2 Textbooks and Reading Materials

Recommended Readings:
Introductory Econometrics, 5e, *by Wooldridge*
Introduction to Econometrics, *3e ,by Stock and Watson*
Introduction to Econometrics, *3e ,by Dougherty*

Course Management System: We will use CMS (http://cms.pkusz.edu.cn/) to manage the course. The course website will appear as *Econ 532: Applied Econometrics (Session E)* in your CMS Course List.

You can enroll with passcode "Econ532". I will send email announcements through CMS and post all related course materials there. Please check the course website every week.

Statistical Package: One goal of this course is to equip students with the skills of making statistical analysis using packages such as STATA, SAS, MATLAB, R and others. Software analysis is heavily used in advance classes, industries and academia. I will demonstrate examples with STATA in class. Students may choose among the popular packages according to your preference.
To get the package, you can visit the school webpage for the instruction of STATA and SAS installation and MATLAB webpage for a student version. R is downloadable from the official webpage http://www.r-project.org/.
Some recommended tutorials for using the statistical packages are:
Emmanuel Paradis. *R for Beginners*.
Lora D. Delwiche and Susan J. Slaughter. *The Little SAS Book*. SAS Institute.
Stata Tutorial: http://data.princeton.edu/stata/

2. Learning Outcomes

2.1 Intended Learning Outcomes

Learning Goals	**Objectives**	**Assessment (YES with details or NO)**
1. Our graduates will be effective communicators.	1.1. Our students will produce quality business and research-oriented documents.	Assignment, Mid-term exam, group project
	1.2. Students are able to professionally present their ideas and also logically explain and defend their argument.	Assignment, Mid-term exam, group project
2. Our graduates will be skilled in team work and leadership.	2.1. Students will be able to lead and participate in group for projects, discussion, and presentation.	group assignment
	2.2. Students will be able to apply leadership theories and related skills.	
3. Our graduates will be trained in ethics.	3.1. In a case setting, students will use appropriate techniques to analyze business problems and identify the ethical aspects, provide a solution and defend it.	Assignment, Mid-term exam, group project
	3.2. Our students will practice ethics in the duration of the program.	
4. Our graduates will have a global perspective.	4.1. Students will have an international exposure.	Assignment, Mid-term exam, group project
5. Our graduates will be skilled in problem-solving and critical thinking.	5.1. Our students will have a good understanding of fundamental theories in their fields.	Assignment, Mid-term exam, group project
	5.2. Our students will be prepared to face problems in various business settings and find solutions.	Assignment, Mid-term exam, group project
	5.3. Our students will demonstrate competency in critical thinking.	Assignment, Mid-term exam, group project

2.2 Course specific objectives

2.3 Assessment/Grading Details

Assessment task	**Weighting**
1. Attendance	10%

2. Assignments	30%
3. Quizzes	30%
4. Group Project	30%
Total	100%

The assignments are individual written assignment. A hard copy is required, soft copy is optional.

Late submission of assignments will not be accepted and considered failure of the tasks.

2.4 Academic Honesty and Plagiarism

It is important for a student's effort and credit to be recognized through class assessment. Credits earned for a student work due to efforts done by others are clearly unfair. Deliberate dishonesty is considered academic misconducts, which include plagiarism; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; or altering, forging, or misusing a University academic record; or fabricating or falsifying of data, research procedures, or data analysis.

All assessments are subject to academic misconduct check. Misconduct check may include reproducing the assessment, providing a copy to another member of faculty, and/or communicate a copy of this assignment to the PHBS Discipline Committee. A suspected plagiarized document/assignment submitted to a plagiarism checking service may be kept in its database for future reference purpose.

Where violation is suspected, penalties will be implemented. The penalties for academic misconduct may include: deduction of honour points, a mark of zero on the assessment, a fail grade for the whole course, and reference of the matter to the Peking University Registrar.

For more information of plagiarism, please refer to *PHBS Student Handbook*.

3. Topics, Teaching and Assessment Schedule

4. Miscellaneous

Week	Topic	Lectures	Text chapters	Assignment due date	Additional information
1	Course Intro, Intro of Stata				
2	Review of Probability and Statistics, Data description				
3	SLR and MLR, Hypothesis Tests Involving LR, Bootstrap and Monte Carlo Simulation				
4	Testing for Heteroskedasticity and Autocorrelation, Model				

	Building				
5	Model Specification and Data issues				
6	Nonlinear Regression Functions, Piecewise Linear Models				
7	Instrumental Variables, Discrete Choice Model				
8	Panel Data, Time Series Data				
9	Time Series Models				