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

Econ532
Applied Econometrics (Session E)
Module 1, 2017-2018

Course Information

Instructor: Qing Wang

Office: PHBS Building, Room 731

Phone: 86-755-2603-3355

Email: qingwang@phbs.pku.edu.cn

Office Hour: Tuesday & Friday, 2:00-3:00pm or by appointment

Teaching assistant: TBA

Email: TBA

Office Hour: TBA

Classes:
Lectures: Tuesday & Friday, 3:30-5:20pm
Venue: PHBS Building, Room 319

Course Website:
http://cms.pkusz.edu.cn

1. Course Description

1.1 Context

Course overview:

This is a required course for master students in Economics and related fields. 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 analyse a variety of real world problems in economics, finance and other fields. Topics covered include linear regression, prediction, panel data analysis, nonlinear models and others. Emphasis will be placed on the analysis of empirical questions using actual datasets and statistical packages.

Prerequisites:

Students are expected to complete Advanced Econometrics I or equivalent. This includes probability distribution, random variable, and theoretical framework of the classical linear regression model. Please see me if you are unsure whether you have the appropriate background.

1.2 Textbooks and Reading Materials

I will use the course website to distribute all handouts, readings and homework assignments. You may consider these books at some point during the course to strengthen your knowledge of econometrics.

Required:

Jeffrey M. Wooldridge. Introductory Econometrics: A Modern Approach. Tsinghua University Press.

Jeffrey M. Wooldridge. Econometric Analysis of Cross Section and Panel Data. MIT Press.

Recommended:

William H. Greene. Econometric Analysis. Prentice Hall.

James D. Hamilton. Time Series Analysis. Princeton University Press.

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
1. Our graduates will be effective communicators.	1.1. Our students will produce quality business and research-oriented documents.	√
	1.2. Students are able to professionally present their ideas and also logically explain and defend their argument.	√
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.	√
	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.	
	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.	
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.	√
	5.2. Our students will be prepared to face problems in various business settings and find solutions.	
	5.3. Our students will demonstrate competency in critical thinking.	√

2.2 Course specific objectives

This course aims to help students use econometric tools to analyse problems in the real world. Learning will be achieved through analysing data, reading book chapters, presenting academic papers and articles, and critically analysing the learning materials.

2.3 Assessment/Grading Details

Students are expected to attend all lectures, participate in class discussions, read the required class materials and complete homework and projects. The course grade will be determined by:

[1]. Midterm exam (40%)

There will be an individual closed-book midterm exam including problem solving and essay questions.

[2]. Homework assignments (10%).

There will be homework assignments. The assignments will contain computer exercises using statistical packages. Submit a hard copy and an electronic version before the deadline. Attach the code with your answer if there is any. Late homework will not be accepted.

[3]. Final exam (25%).

There will be an individual closed-book final exam including problem solving and essay questions.

[4]. Final project (25%).

Students will be asked to replicate an empirical paper selected from previous issues of an academic journal. Group work is encouraged. Alternatively, based on your own circumstances and subject to my approval, you can write your own paper. Late submission will not be acceptable.

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

Topic 1: Linear Regression and Ordinary Least Squares

Topic 2: Statistical Inference and Interpretation for Liner Regression

Topic 3: More Topics on Multiple Linear Regression

Topic 4: Endogeneities and Instrumental Variables

Topic 5: Panel Data

Topic 6: Nonlinear Models

4. Miscellaneous

We will use CMS (http://cms.pkusz.edu.cn/) to manage the course. The course website will appear as Econ532: Applied Economics in your CMS Course List. I will send email announcements through CMS and post all related course materials there. Please check the course website every week.