

**Peking University HSBC Business School**  
**Fall 2013-Module 1**

***Advanced Econometrics I***

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<b>Professor:</b>	Lan Ju, Ph.D.	<b>Office:</b>	C-401
<b>Phone:</b>	86-755-26032653	<b>Email:</b>	<a href="mailto:julan@phbs.pku.edu.cn">julan@phbs.pku.edu.cn</a>
<b>Class Time:</b>	T/F 3:30-5:20	<b>Classroom:</b>	C105
<b>Office Hours:</b>	By appointment		
<b>TA:</b>	<b>TBD</b>		

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**Text:**

Jefferey M. Wooldridge (2009), *Introductory Econometrics: A Modern Approach*, 4<sup>th</sup> Edition, 清华大学出版社(English Version).

Fumio Hayashi (2000), *Econometrics*, Princeton University Press.

**Other Course Materials:**

Lecture notes

**Course Objective:**

The purpose of the course is to help students develop a theoretical framework for analyzing cross sectional data by means of regression models.

The main topics covered in this course include the basic linear regression model and extensions of it.

**Grading Policy:**

In-class Exercise	20%
Homework	10%
Midterm	30%
Final Exam	40%
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	100%

**Class Participation:**

I firmly believe that we learn by actively participating in the learning process. Thus, you are strongly encouraged to read course materials before coming to the class. Also, please remember your active participation in the class discussion may affect your grades at the margin.

## **Academic Honesty:**

Academic dishonesty discourages learning. Therefore all students are expected to abide by the code of academic honesty of PHBS, and to interact with one another respectfully, fairly, and honestly. Known instances of academic dishonesty will be prosecuted through the university's judiciary system.

## **Main Topics:**

- ☺ *Nature of Econometrics and Economic Data (Ch.1)*
  - What is Econometrics?
  - Economic Data
  
- ☺ *The Two-Variable Linear Regression Model (Ch.2)*
  - The Simple Regression Model
  - Ordinary Least Squares (OLS) Estimation
  - Inference
  
- ☺ *Multiple Linear Regression (Ch.3-4)*
  - Specification of the Model
  - OLS Estimation
  - Inference
  
- ☺ *Further Issues in Multiple Regression (Ch. 6-8)*
  - Functional Forms and Other Specification Issues
  - Qualitative Information and Dummy Variables
    - Dummy Independent Variables
    - A Binary Dummy Dependent Variable: The Linear Probability Model
  - Heteroskedasticity
    - Nature and Consequences of Heteroskedasticity
    - Testing for Heteroskedasticity
  - Weighted Least Squares (WLS)/ Generalized Least Squares (GLS) Estimation
  
- ☺ *Other Topics in Regression (Ch.15 & Ch.17)*
  - Binary Dummy Dependent Variable: Logit and Probit Models
  - Instrumental Variables (IV) Estimation and Two Stage Least Squares (2SLS)
  - Others: Generalized Method of Moments (GMM) Estimation, Panel data basics etc.