# Chinese University of Hong Kong, Fall 2017 ECON5121A

**Econometric Theory and Applications**

## Instructor:

### Shi, Zhentao

Office hours: Fridays 4-5 pm, or by appointment Office

Office: ELB 912

Email: [zhentao.shi@cuhk.edu.hk](mailto:zhentao.shi@cuhk.edu.hk)

**Teaching Assistant:**

Zhao, Jing

Office hours: Thursday 4-5 pm

Office: CKB 514, 5/F, CKB

Email: [j](mailto:pkuskyfree@gmail.com)[ing.zhao@link.cuhk.edu.hk](mailto:ing.zhao@link.cuhk.edu.hk)

## Lecture Hours and Venue:

Starting from September 6, every Wednesdays 3:30 - 6:15pm, CKB 122

**Topics (tentative):**

### This course is an entry-level graduate econometrics course. Knowledge of econometrics and statistics at the undergraduate level is prerequisite.

### Conditional expectation and linear projection

### Least squares estimator

### Basic asymptotic theory

### Hypothesis testing

### Panel data model

### Endogeneity and instruments

### Generalized method of moments

### Treatment effect

### Nonparametric methods

### Forecasting

### **Textbook:**

### Bruce Hansen (2017): Econometrics ([<http://www.ssc.wisc.edu/~bhansen/econometrics/>](http://www.ssc.wisc.edu/~bhansen/econometrics/)).

**References:**

### *For comprehensive coverage*

### Hayashi (2000): Econometrics

### *For undergraduate-level knowledge:*

### Stock and Watson (2014): Introduction to Econometrics (3rd Ed.)

### *For further mathematical background:*

### Casella and Berger (2001): Statistical Inference (2nd Ed.)

**Evaluations**

### midterm (50%),

### final (50%)