# Chinese University of Hong Kong, Fall 2018 ECON5121A

**Econometric Theory and Applications**

## Instructor:

### Shi, Zhentao

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**Teaching Assistant:**

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## Lecture Hours and Venue:

Starting from September 7, every Friday 8:30 - 11:15pm, ELB 205

**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

### Nonparametric methods

### **Textbooks:**

### *Downloadable for free*

### Bruce Hansen (2018): Econometrics ([<http://www.ssc.wisc.edu/~bhansen/econometrics/>](http://www.ssc.wisc.edu/~bhansen/econometrics/)).

### Hastie, Tibshirani, Friedman (2009): The Elements of Statistical Learning (<http://web.stanford.edu/~hastie/ElemStatLearn/)>

**References:**

### *For comprehensive coverage*

### Hayashi (2000): Econometrics

### *For undergraduate-level knowledge*

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

### *For further mathematical statistics background*

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

**Evaluations**

### midterm (50%),

### final (50%)