Chinese University of Hong Kong, Fall 2018

ECON5121A: Econometric Theory and Applications

Instructor:

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

Office: ELB 912

Email: zhentao.shi@cuhk.edu.hk

Teaching Assistant:

Zhao, Jing
Office hours: Thursday 4-5 pm

Office: CKB 514, 5/F, CKB

Email: jing.zhao@link.cuhk.edu.hk

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.

- Review of probability theory
- 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

Numerical examples will be demonstrated in R.

Textbooks:

Downloadable for free

- Bruce Hansen (2018): 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 mathematical statistics foundation

- Casella and Berger (2002): Statistical Inference (2nd Ed.)

For machine learning

Downloadable for free

- James, Witten, Hastie and Tibshirani: An Introduction to Statistical Learning with Applications in R (http://www-bcf.usc.edu/~gareth/ISL/)

Evaluations

- midterm (50%): **Oct 19**
- final (50%): TBD