Chinese University of Hong Kong, Fall 2018

ECON5121A: Econometric Theory and Applications

Instructor:

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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.

- 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:

- Bruce Hansen (2018): Econometrics (http://www.ssc.wisc.edu/~bhansen/econometrics/) *Downloadable for free*

Lecture Notes:

- https://github.com/zhentaoshi/Econ5121A

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 R and more

- Kleiber and Zeileis (2008): Applied Econometrics with R
- James, Witten, Hastie and Tibshirani (2013): An Introduction to Statistical Learning with Applications in R (http://www-bcf.usc.edu/~gareth/ISL/) *Downloadable for free*

Evaluations

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