Chinese University of Hong Kong, Spring 2023

ECON 5150: Applied Econometrics

Instructor:

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Lecture Hours and venue:

- CKB 109
- Tuesday 12:30pm – 3:15pm (Jan 10 – Jan 17, 2023; Jan 31 –Apr 18, 2023)

Prerequisites:

- ECON5120

Textbooks:

- Hansen (2021): Probability and Statistics for Economists [PS] (https://www.ssc.wisc.edu/~bhansen/probability/)
- Hansen (2021): Econometrics [E] (http://www.ssc.wisc.edu/~bhansen/econometrics/)

Tentative coverage:

As a sequel to ECON5120, this course will cover advanced topics in econometric theory.

Part I: Extremum estimator

- Asymptotic theory I ([PS] ch.7, 8, 9; [E] ch.6)
- Asymptotic theory II ([PS] ch.9, 18)
- Extremum estimator ([E] ch.22)
- Maximum likelihood ([PS] ch.10)
- Quantile regressions ([E] ch.24)
- Numerical optimization ([PS] ch.12)

Part II: Time series

- Time dependence and asymptotics ([E] ch.14)
- ARMA models ([E] ch.14)
- Time series regressions ([E] ch.14)
- VAR models ([E] ch.15)
- Unit roots ([E] ch.16)
- Cointegration ([E] ch.16)

Assessment:

1. Midterm (50%)
2. Final (50%)

Both exams are closed book. One hand-written letter-size sheet is allowed.

Academic Honesty:

Attention is drawn to University policy and regulations on honesty in academic work, and to the disciplinary guidelines and procedures applicable to breaches of such policy and regulations. Details may be found at http://www.cuhk.edu.hk/policy/academichonesty/.