AH2010 Econometrics II 7.5 credits

Econometrics II

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for AH2010 valid from Autumn 2007

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Specific prerequisites

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

The course considers different core methods of estimations: Linear models, Maximum likelihood and Nonlinear Least-Squares Estimation, General Methods of Moments and System Estimation and Semiparametrics Methods. The students are also introduced into Simulation-Based Methods. The application part is mainly focused on Models for Panel data including basic linear panel data models (pooled models, fixed effects and random effects model) and extended models (GMM estimation of linear panel models, dynamic Models and difference in difference models). Finally, the course will introduce the students into basic treatment evaluation with a special attention on Treatment effects and Selection bias, Matching and Propensity Score estimators and Difference-In-Difference estimators

Learning outcome:

The course should provide the student with background knowledge that can be used for empirical econometric analysis linked to the Master thesis or PhD-dissertation. The student should be able to estimate single equations and system estimation, static and dynamic models and parametric and non-parametric models.

Course contents

- Linear Models
- Nonlinear Models
- Generalized Method of Moments
- Static Models
- Dynamic Models
- Maximum Likelihood
- Hypothesis Tests
- Specification Tests
- Matching and Propensity Score estimators
- Difference-in Difference estimators

Course literature

A. Colin Cameron and P.K. Trivedi "Microeconometrics, Methods and Applications", Cambridge University Press

Examination

- TEN1 - Examination, 7.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Other requirements for final grade

1.Assignment with a short essay on models for panel data.
2.Assignment with a short essay on treatment evaluation
3.Assignments with a short essay on simulation-based methods
4.Active participation in seminar discussions

Ethical approach

- All members of a group are responsible for the group's work.

- In any assessment, every student shall honestly disclose any help received and sources used.

- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.