



AH2010 Econometrics II 7,5 hp

Econometrics II

När kurs inte längre ges har student möjlighet att examineras under ytterligare två läsår.

Fastställande

Kursplan för AH2010 gäller från och med VT10

Betygsskala

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

Utbildningsnivå

Avancerad nivå

Huvudområden

Särskild behörighet

Eligibility for single course students:

- A completed Bachelor's degree in Engineering, Science, Economics or Planning including at least 30 credits in Mathematics, Statistics and/or Economics and
- documented proficiency in English B or equivalent (TOEFL, IELTS e g).

The basic course Econometrics (AH2002) or equivalent is recommended.

Undervisningsspråk

Undervisningsspråk anges i kurstillfällesinformationen i kurs- och programkatalogen.

Lärandemål

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.

Kursinnehåll

- 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

Kurslitteratur

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

Examination

- TEN1 - Examination, 7,5 hp, betygsskala: A, B, C, D, E, FX, F

Examinator beslutar, baserat på rekommendation från KTH:s handläggare av stöd till studenter med funktionsnedsättning, om eventuell anpassad examination för studenter med dokumenterad, varaktig funktionsnedsättning.

Examinator får medge annan examinationsform vid omexamination av enstaka studenter.

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

Övriga krav för slutbetyg

Assignments

Active participation in seminar discussions

Etiskt förhållningssätt

- Vid grupparbete har alla i gruppen ansvar för gruppens arbete.
- Vid examination ska varje student ärligt redovisa hjälp som erhållits och källor som använts.
- Vid muntlig examination ska varje student kunna redogöra för hela uppgiften och hela lösningen.