



DEPARTMENT OF ECONOMICS

NEF1003 Econometrics III, 6 credits

Ekonometri III, 6 högskolepoäng

Third-cycle level / Forskarnivå

Confirmation

This syllabus was confirmed by the Department of Economics on 2018-12-06, and is valid from Spring semester 2019.

Responsible Department

Department of Economics, School of Business, Economics and Law

Entry requirements

To be eligible for the course the participant must be admitted to third cycle studies at the Department of Economics, Gothenburg University or other departments, faculties or universities.

It will be assumed that students taking the course understand the material taught in Econometrics I and Econometrics II (as well as all the material covered in a basic econometrics textbook such as Introduction in Econometrics, by Stock and Watson).

Learning outcomes

On successful completion of the course, the third-cycle student is expected to:

Knowledge and understanding

- understand the assumptions under which a particular econometric estimator is unbiased and/or consistent
- understand and be able to reflect on the consequences of false model assumptions

Competence and skills

- be able to interpret results obtained by means of the econometric techniques covered in the course
- be able to critically assess empirical studies published in top journals
- be able to implement the econometric techniques covered in the course, using real data

Judgement and approach

- understand how the design of an empirical study can affect whether the research results are sustainable

Course content

This course covers econometric methods for analysis of cross-section and panel datasets.

The following topics will be discussed and analyzed:

- (1) fundamental single equation topics;
- (2) estimation of average treatment effects;
- (3) basic and advanced issues related to instrumental variables methods, regression discontinuity designs and difference-in-differences estimation;
- (4) advanced panel data models, including dynamic panel data models;
- (5) general issues related to empirical research designs, such as pre-analysis plans and research ethics.

The general focus of the course is in the application of econometric techniques.

Types of instruction

The course consists of lectures and workshops.

Language of instruction

The course is given in English.

Grades

The grade Pass (G) or Fail (U) is given in this course.

Types of assessment

The course is assessed by weekly assignments and a replication exercise at the end of the course.

The learning goals 1-3 are covered by the assignments and the learning goals 4-6 are covered by the replication exercise. The assignments are worth 40 points in total and the replication exercise is worth 60 points. Assignments can be conducted jointly (max 2 persons) but has to be written up separately. To get a Pass grade on this course, a minimum of 50 points in total will be required and a minimum of 75 points in total is required to get a High Pass grade. Active participation during class, including at least one presentation, is required for passing the course.

A student who has failed the examination twice has the right to change examiner, if practically possible. Such request must be submitted in writing to the Deputy Head of the Department of Economics.

Course evaluation

A written anonymized course evaluation will be carried out at the end of the course. The results of the evaluation will be communicated to the students and will function as a guide for the development of the course.

Other information

Students registered for Third Cycle studies at another faculty or university must apply for admission to the course to the Deputy Head of the Department of Economics.

Appendix 1: Reading list