



Course syllabus

School of Business and Economics
Department of Economics and Statistics

4NA061 Avancerad Ekonometri, 7,5 högskolepoäng
Advanced Econometrics, 7.5 credits

Main field of study
Economics

Subject Group
Economics

Level of classification
Second Level

Progression
A1N

Date of Ratification
Approved 2018-12-13
Revised 2021-06-30 by School of Business and Economics. Literature revision.
The course syllabus is valid from autumn semester 2021

Prerequisites
General entry requirements for secondcycle studies and specific entry requirements:

- bachelor Degree in Economics, or in another social science or natural sciences or the equivalent
- a minimum of 90 credits in Economics,
- a minimum of 15 credits in Statistics,
- English B/English 6, or the equivalent

alternatively,

Students applying for the course within the Business Administration and Economics Programme need to have 60 credits Business Administration, 15 credits statistics, 15 credits Commercial Law, 90 credits economics and English B/English 6, or equivalent.

Objectives

After completed course the student is expected to be able to:

- derive and explain the linear regression model and its properties, using matrix algebra
- derive and explain the instrumental variables method
- perform inference on econometric models using the least squares method and the maximum likelihood method
- formulate and perform statistical tests, as well as explain the basic idea behind the Lagrange Multiplier, Likelihood Ratio and the Wald tests
- analyze models with discrete outcomes

- analyze models and perform inference on panel data models
- perform empirical analyses using software

Content

The course contains:

- the Ordinary Least Squares Method
- maximum likelihood
- instrumental variables method
- diagnostic tests: autocorrelation, heteroskedasticity, normality, functional form, stationarity
- probit and Logit models
- panel data methods

Type of Instruction

The teaching consists of lectures and exercises.

Examination

The course is assessed with the grades A, B, C, D, E, Fx or F.

The course is examined through a written exam and assignments.

The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student's performance is assessed as fail.

After each regular examination there will be at least one new examination in close proximity to the date the results of the regular exam were posted. Students who are close to the passing grade of reports can complement after instructions and time-frame given by the examiner to obtain a pass grade.

Grading criteria for the A–F scale are communicated in writing to the student by the start of the course at the latest.

Course Evaluation

During the implementation of the course or in close connection to the course a course evaluation is to be carried out. Result and analysis of the course evaluation is to be presented as feedback both to the students who have completed the course and to the students who are to participate on the course the next time it is offered. The course evaluation is to be carried out anonymously.

Required Reading and Additional Study Material

Required reading

Wooldridge, J. M. *Introductory econometrics: a modern approach*. Wooldridge, South-Western College Publishing. Latest edition. About 820 pages.

Lecture notes. About 300 pages.

Scientific articles. About 200 pages.