Linnéuniversitetet
Kalmar Växjö

Dnr 2019/1955-4.1.2.1

Course syllabus

School of Business and Economics

3FNA027

Econometrics 15 ECTS

Ekonometri 15 hp.

Main field of study
Statistics

Subject Group
Statistics

Level of classification
Third Level

Date of Ratification
Approved by the Dean of the School of Business and Economics 190620

Prerequisites
Each student should be accepted as a doctoral student in Business Administration/Economics/Statistics. 30 credits in statistics or econometrics is needed as a very minimum. Basic skills in matrix algebra is recommended

Objectives

On completion of the course the students will be able to:

Knowledge and understanding

- Assess the general usefulness/weaknesses of the statistical methods treated in the course
- Recognize the common errors made in econometric analysis
- Discuss the issues of the orthogonal decomposition viewing angle vs the theory viewing angle of an econometric model

Skills and abilities

- Assign an appropriate model to economic data

- Assess the goodness-of-fit of a model
- Calculate relevant point and interval estimates
- Conduct tests of distributional properties
- Use statistical software appropriate for econometric analysis
- Applying robust methods

Judgement and approach

- Assess the characteristics of typical economic data
- Determine when to use which method
- Recognize the common problems associated with econometric modelling

Content

The course contains:

- Stochastic limit theory
- Linear algebra
- Data generating processes
- The linear regression model
- The least square estimator
- Hypothesis tests and model selection
- Functional form and structural change
- Nonlinear and nonparametric regression models
- Endogeniety and Instrumental Variable estimation
- The generalized regression model
- Systems of equations
- Models for panel data
- Estimation methodology
- Truncation, censoring and sample selection
- Time series analysis

Type of instruction

The teaching consists of lectures and computer labs. Seminars may sometimes be used.

Dates for compulsory elements are stated in the schedule.

Language of instruction: English

Examination

The course is examined through hand-ins.
The course is assessed with the grades Fail (U) or Pass (G).

The grade G constitutes the highest grade on the scale that will result in a pass. The grade U means that the student's performance is assessed as fail. 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 are communicated in writing to the student by the start of the course at the latest.

If the university has decided that a student is entitled to special pedagogical support due to a disability, the examiner has the right to give a customised exam or to have the student conduct the exam in an alternative way.

Course evaluation

During the implementation of the course or in close conjunction with the course, a course evaluation is to be carried out. Results and analysis of the course evaluation are to be promptly presented as feedback to the students who have completed the course. Students who participate during the next course instance receive feedback at the start of the course.

Required reading

Articles will be supplied during the course

Books

Econometric analysis, W. H. Greene, latest edition