



## Course syllabus

School of Business and Economics

Department of Economics and Statistics

1NA071 Ekonometri, 7,5 högskolepoäng

1NA071 Econometrics, 7.5 credits

### **Main field of study**

Economics

### **Subject Group**

Economics

### **Level of classification**

First Level

### **Progression**

G1F

### **Date of Ratification**

Approved 2014-10-15

Revised 2022-03-14 by School of Business and Economics. Revision of prerequisites and update of standard texts.

The course syllabus is valid from autumn semester 2022

### **Prerequisites**

Economics 30 credits, including course credits in basic micro- and macroeconomics, and Statistics 15 credits or course credits in time series analysis and regression analysis, and English 6, or the equivalent.

alternatively,

Students applying for the course within the Business Administration and Economics Programme need to have:

At least 60 credits within Business Administration and Legal Science.

and

- Macroeconomics 15 credits,
- Microeconomics 15 credits,
- Business Statistics I 7.5 credits,
- Business Statistics II 7.5 credits,
- English 6, or the equivalent.

## Objectives

After completing this course the student should be able to:

- explain and describe regression models (simple and multiple), their properties and inference
- identify, explain and solve for problems such as heteroscedasticity, autocorrelation and multicollinearity
- explain and interpret time series models such as AR and ARCH models
- explain and identify Granger-causality, (non-)stationarity and co-integration
- apply regression models to estimate and analyze economic relationships
- explain the possibilities and limitations associated with different data when using regression analysis
- explain and understand the intuition of the most common statistical methods to isolate causal effects
- interpret results in written and oral form from a regression analysis
- use statistical software to perform data processing and estimation

## Content

The purpose of the course is to go through fundamental regression analysis which is frequently used in economics.

The course covers the following topics:

- Ordinary Least Squares
- model specification and diagnostics testing
- dynamic econometrics models
- causality and instrumental variables
- identification, estimation, diagnostic testing and prediction of ARIMA models

## Type of Instruction

The teaching consists of lectures, laboratory sessions and tutorials.

## Examination

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

The course is examined through a written examination (5.5 credits), a laboratory session (1 credit) and a written assignment (1 credit).

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. Grading criteria for the A–F scale are communicated in writing to the student by the start of the course at the latest, as well as how the weighting and weighting of grades on individual examining elements to the final course grade takes place. The basis for the student's grade is determined by the student's fulfillment of the objectives.

Repeat examination is offered in accordance with Local regulations for courses and examination at the first and second-cycle level at Linnaeus University. An examiner can, in exceptional cases, decide that a student who is close to the level for a passing grade may carry out supplementary assignments in order to reach the passing grade.

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. The course evaluation is to be carried out anonymously.

## Credit Overlap

The course cannot be included in a degree along with the following course/courses of which the content fully, or partly, corresponds to the content of this course: 1NA005:2, 2NA001, 2FE045:2, 1NA004:2, 1NA011 and 1NA016:2 with 7.5 credits each.

## Required Reading and Additional Study Material

### **Required reading**

Wooldridge, J. *Introductory Econometrics*. Cengage. Latest edition. About 830 pages.

Scientific articles and statistics provided by the teacher. About 100 pages.