



Course syllabus

School of Business and Economics

Department of Economics and Statistics

4NA099 Avancerad statistisk dataanalys, 7,5 högskolepoäng

4NA099 Advanced statistical data analysis, 7.5 credits

Main field of study

Economics

Subject Group

Economics

Level of classification

Second Level

Progression

A1N

Date of Ratification

Approved by School of Business and Economics 2023-01-23

The course syllabus is valid from autumn semester 2023

Prerequisites

General entry requirements for studies at the second-cycle level and specific entry requirements:

- a bachelor's degree in economics or in another main field of study in the social or natural sciences
- 15 credits of statistics at the G1N level, or the equivalent
- English 6 or the equivalent.

Objectives

After completing this course the student should be able to:

- elaborate data using different statistics software
- explain relevant methods for data analysis, for instance linear regression, hypothesis testing, time series analysis
- critically determine whether certain software brought up in the course is (not) useful for a certain type of analysis
- perform computer analyses using the software brought up in the course
- explain relevant visualisation methods
- visualise data using computer software.

Content

The course contains:

- SPSS software
- R software
- SAS software
- sampling distribution
- point and interval estimation
- bootstrapping
- data visualisation
- Additional software can be used as comparison and completion

Type of Instruction

The teaching consists of laboratory introductions and individual student contact.

Examination

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

The course is examined through individual assignments 7.5 credits.

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.

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: 1ST817 with 7.5 credits.

Required Reading and Additional Study Material

Required reading

The teaching material for the course consists of the following online software manuals. References and links to additional online resources that may be used will be distributed by the course coordinator before the start of the course.

Additional study material

R online manual (electronic resource that is part of the software R. The manual cannot/should not be bought).

SAS online manual (electronic resource that is part of the software SAS. The manual cannot/should not be bought).

SPSS online manual (electronic resource that is part of the software SPSS. The manual cannot/should not be bought).