Linnæus University

Course syllabus

School of Business and Economics

Department of Economics and Statistics

1ST817 Statistisk dataanalys, 7,5 högskolepoäng
1ST817 Statistical data processing, 7.5 credits

Main field of study
Statistics

Subject Group
Statistics

Level of classification
First Level

Progression
G1F

Date of Ratification
Approved 2020-01-22
Revised 2022-06-27 by School of Business and Economics. Revised examining
moments, literature and updated standard texts.
The course syllabus is valid from spring semester 2023

Prerequisites
15 credits within Statistics on G1N or the equivalent. English 6 or the equivalent.

Objectives
After completing this course the student should be able to:

- import/export datasets to/from different statistical software
- conduct numerical data processing's in the different software in the course
- obtain graphical data visualizations with the different software in the course
- apply the technique of bootstrapping to approximate sampling distribution
- judge when any of the above software packages in the course is (not) suitable for a certain kind of analysis

Content
The course contains:

- the SPSS software
- the R software
- the SAS software

- sampling distributions
- point and interval estimators
- bootstrapping
- data visualization

Additional software such as Excel, PSPP, Ox or STATA may also be introduced.

Type of Instruction
The teaching consists of computer lab introductions and individual communication between students and teacher.

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

The course is examined through three individual assignments that are performed using the computer programs included in the course (by 1.5 hp and 3 hp). The final grade is determined by the average of the three individual grades.

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.

Required Reading and Additional Study Material
Required reading
The readings for the course consists of online manuals (see below). References to other online resources that may be of relevance will be supplied by the course coordinator before the start of the course.

Additional study material
R online manuals (this electronic resource is part of the software R. The manuals cannot, and should not, be bought).

SAS online manuals (this electronic resource is part of the software SAS. The manuals cannot, and should not, be bought).

SPSS online manual (this electronic resource is part of the software SPSS. The manual cannot, and should not, be bought).