Linnæus University

Course syllabus

School of Business and Economics

Department of Economics and Statistics

1ST401 Statistik, 7,5 högskolepoäng
1ST401 Statistics, 7.5 credits

Main field of study
Statistics

Subject Group
Statistics

Level of classification
First Level

Progression
G1N

Date of Ratification
Approved 2018-06-14
Revised 2022-06-07 by School of Business and Economics. Revision of field specific entry requirements as well as update of standard texts.
The course syllabus is valid from spring semester 2023

Prerequisites
General entry requirements + Civics 1b alt. Civics 1a1 +1a2, Mathematics 2a alt. Mathematics 2b alt. Mathematics 2c and English 6.

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

- discuss the role of centrality measures vs measures of spread
- state the difference between point estimates and interval estimates estimates
- explain the concept of random samples
- explain the duality between hypothesis tests and confidence intervalls
- discuss the meaning- and use of the central limit theorem
- use SPSS to: present and summarise data graphically, calculate elementary probabilities, test statistical hypotheses concerning measures of centrality

Content
The course contains:

- descriptive statistics

- probability
- random variables
- the normal distribution
- sampling and sampling distributions
- confidence intervals,
- hypothesis testings
- practical examples from retail application areas
- statistical data processing with SPSS

Type of Instruction
The teaching consists of computer classes and lectures.

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

The course is examined through a a written exam (3 credits) and a serie of computer assignments (4.5 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. 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: 1ST512:1 with 7.5 credits.

Required Reading and Additional Study Material
Required reading
Moore, D., McCabe, G., Craig, B. *Introduction to the practice of statistics*. Macmillan Learning. Latest edition. About 810 pages.

SPSS online manual (electronic)