# **Linnæus University**

Dnr: LNU-2024/815

## Course syllabus

School of Business and Economics

Department of Economics and Statistics

1ST860 Grundläggande statistik för företagsekonomi och nationalekonomi, 7,5 högskolepoäng

Basic Statistics for Business and Economics, 7.5 credits

## Main field of study

**Statistics** 

#### **Subject**

**Statistics** 

#### Level

First cycle

#### **Progression**

G1N

#### **Date of Ratification**

Approved 2024-06-24.

The course syllabus is valid from spring semester 2025.

#### **Prerequisites**

General entry requirements + English 6, Mathematics 3b alt. Mathematics 3c and Civics 1b alt. Civics 1a1 +1a2.

## **Objectives**

After completing this course the student should be able to

- · discuss the meaning and use of measures of centrality and measures of spread
- describe the differences between point estimation and interval estimation
- describe the meaning and relevance of the central limit theorem
- present, summarize and analyze data by using Statistical Software, in a written document/report
- carry out elementary probability calculations

- carry out hypotheses testing about measures of centrality and proportions
- critically assess the general usability and limitations of the statistical methods covered in this course

### Content

The course contains:

- descriptive statistics
- · probabilities and combinatorics
- · random variables
- elementary discrete and continuous distributions
- sampling and sampling distributions, in particular the central limit theorem
- point- and interval estimates of measures of centrality and proportions
- hypothesis testing of population means and proportions

## Type of Instruction

The teaching consists of lectures and computer group exercises.

#### Examination

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

The course is examined through an individual digital query 1 credit, a computer exercise with hand in group assignment 1.5 credits and an individual written examination 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.

Resit examination is offered in accordance with Linnaeus University's Local regulations for courses and examination at the first- and second-cycle levels.

In the event that a student with a disability is entitled to special study support, the examiner will decide on adapted or alternative examination arrangements.

#### Course Evaluation

A course evaluation should be conducted during the course or in connection with its conclusion. The results and analysis of the completed course evaluation should be promptly communicated to students who have completed the course. Students participating in the next course instance should be informed of the results of the previous course evaluation and any improvements that have been made, no later than at the start of the course.

## 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: 1ST902, 1ST903 and 1ST904:1 with 4 credits each. 1ST060, 1ST801 and 1ST905:1 7.5 credits each.

## Required Reading and Additional Study Material

Anderson, D-R., Sweeney, D-J., Williams, T-A., Freeman, J. & Shoesmith, F. *Statistics for Business and Economics*. SouthWestern Cengage Learning. Latest edition. About 640 pages.

## Additional study material

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