School of Economics and Management

STAA45, Statistics: Business Statistics I, 7.5 credits

Statistik: Statistik för international business I, 7,5 högskolepoäng

First Cycle / Grundnivå

Details of approval

The syllabus was approved by The Board of the Department of Statistics on 2024-02-26 (U 2024/108) and was last revised on 2024-12-09 (U 2024/916). The revised syllabus comes into effect 2024-12-16 and is valid from the autumn semester 2025.

General information

The course is a compulsory course in BSc in International Business (EGIBU) and may also be taken by incoming exchange students.

Language of instruction: English

Main field of study	*Specialisation*
Statistics	G1N, First cycle, has only upper-secondary level entry requirements

Learning outcomes

Knowledge and understanding

After completed course, the student will

- be able to give an account of various graphical and numerical methods for descriptive statistics,
- be able to explain the concepts independence, probability, distribution, expected value and variance,
- be able to explain the duality between hypothesis tests and confidence intervals, and
- on a general level explain the central limit theorem and how it can be utilised.

Competence and skills

After completed course, the student will

- be able to design questionniares and collect data,
- be able to calculate probabilities and expected values for a given distribution,
- be able to estimate parameters, using both point and interval estimators, and test hypotheses concerning the parameters,
- be able to analyse data using statistical software, and
- be able to present the resultat of statistical analyses orally and in writing.

Judgement and approach

After completed course, the student will

- be able to judge which distribution is appropriate to assume in a given situation,
- be able to judge which statistical method is appropriate to use in a given situation,
- be able to interpret the results of hypothesis testing and confidence intervals, and
- be able to make judgements in data collection with respect to relevant statistical and ethical aspects.

Course content

The course covers descriptive statistics and basic probability theory and provides an introduction to statistical inference.

Within descriptive statistics the following topics are covered

- data collection, data levels, sampling methods, and
- graphical and numerical methods for summarizing and presenting data.

The probability theory part includes

- events and spaces, probability of one and several events, conditional probability, Bayes theorem,
- discrete probability distributions, including binomial distribution, Poisson distribution, hypergeometric distribution,
- continuous probability distributions, including normal distribution and uniform distribution, and
- sampling distributions and the central limit theorem.

Within statistical inference the following topics are covered

- point estimates of population parameters,
- confidence intervals for population means, proportions, and differences, and
- hypothesis testing concerning population means, proportions, and differences.

Course design

The course consists of lectures, exercises, group tutorials, computer labs, project work, and a compulsory seminar. The project is presented at the seminar. If there are special reasons, the examinator may decide on a replacement task for seminar attendance.

Assessment

The examination consists of a written exam and a group project presented both orally and in writing.

Lund University views plagiarism very seriously, and will take disciplinary actions against students for any kind of attempted malpractice in examinations and assessments. Plagiarism is considered to be a very serious academic offence. The penalty that may be imposed for this, and other unfair practice in examinations or assessments, includes suspension from the University.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Grades

Grading scale includes the grades: U=Fail, E=Sufficient, D=Satisfactory, C=Good, B=Very Good, A=Excellent

A (Excellent) 85-100 points/percent. A distinguished result that is excellent with regard to theoretical depth, practical relevance, analytical ability and independent thought.

B (Very good) 75-84 points/percent. A very good result with regard to theoretical depth, practical relevance, analytical ability and independent thought.

C (Good) 65-74 points/percent. The result is of a good standard with regard to theoretical depth, practical relevance, analytical ability and independent thought and lives up to expectations.

D (Satisfactory) 55-64 points/percent. The result is of a satisfactory standard with regard to theoretical depth, practical relevance, analytical ability and independent thought.

E (Sufficient) 50-54 points/percent. The result satisfies the minimum requirements with regard to theoretical depth, practical relevance, analytical ability and independent thought, but not more.

F (Fail) 0-49 points/percent. The result does not meet the minimum requirements with regard to theoretical depth, practical relevance, analytical ability and independent thought.

To pass the course, the students must have been awarded the grade of E or higher.

The grade is determined by weighting the results of the exam (75%) and the project (25%).

Entry requirements

General requirements and studies equivalent of courses English 6, Mathematics 3b or 3c and Social Studies 1b or 1a1+1a2 from Swedish Upper Secondary School.

Further information

STAA45 and STAA46 together replace STAA35 and STAA36.

STAA45 may not be combined with STAA35 or STAA36 in a degree.