Statistics

Single subject and programme course

11 credits

Statistik

732G81

Valid from: 2010 Autumn semester

Determined by

The Quality Board at the Faculty of Arts
and Sciences

Date determined

2008-11-12

Main field of study

Statistics

Course level

First cycle

Advancement level

G1N

Course offered for

- Business and Economics Programme - International - French
- Business and Economics Programme - International - Spanish
- Business and Economics Programme - International - German
- Business and Economics Programme - International - English

Entry requirements

General entry requirements for undergraduate studies
and
Mathematics and Social Studies corresponding to the level in Swedish upper
secondary education (Matematik 3b/3c, Samhällskunskap 1b/(1a1 and 1a2)
and
English corresponding to the level of English in Swedish upper secondary
education (Engelska 6)

Intended learning outcomes

On completion of the course, the student should be able to:
- collect data via an independently developed questionnaire and describe and
analyse the data by means of basic statistical methods,
- demonstrate statistical inference,
- carry out both estimation and test of hypotheses of means and proportions,
- assess the quality of collected data and inferences and carry out simple statistical
analyses.

Course content

The aim of the course is that the student should acquire a constructive critical approach to quantitative data and knowledge of fundamental statistical concepts and methods. An additional aim of the course is that the student should develop an ability to handle data with and without the help of a computer.

The theoretical part of the course covers the following areas:
- descriptive statistics,
- descriptive measures,
- tables and diagrams, the table analysis and standard weighting,
- the basics of probability theory,
- sampling methods,
- statistical inference,
- point and interval estimation,
- hypothesis testing with z and t methods,
- chi-square test,
- simple linear regression,
- computer exercises.

The course also includes a project work

Teaching and working methods

Apart from self-study, the teaching consists of lectures and teaching sessions, as well as computer exercises, supervision and seminars in connection with the project. The students should also study independently.

Examination

The course is examined through a written examination and through project work. Participation in project seminars is compulsory. The examination also includes completion of computer exercises, which are preceded by one or more tests.

If the LiU coordinator for students with disabilities has granted a student the right to an adapted examination for a written examination in an examination hall, the student has the right to it. If the coordinator has instead recommended for the student an adapted examination or alternative form of examination, the examiner may grant this if the examiner assesses that it is possible, based on consideration of the course objectives.

Students failing an exam covering either the entire course or part of the course twice are entitled to have a new examiner appointed for the reexamination.

Students who have passed an examination may not retake it in order to improve their grades.

Grades

Three-grade scale, U, G, VG

Other information

Planning and implementation of a course must take its starting point in the wording of the syllabus. The course evaluation included in each course must therefore take up the question how well the course agrees with the syllabus. The course is carried out in such a way that both men´s and women´s experience and knowledge is made visible and developed.

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Department

Institutionen för datavetenskap