

Research methodology and statistics

Single subject and programme course

6 credits

Forskningsmetodik och statistik

729G03

Valid from:

Determined by

The Quality Board at the Faculty of Arts
and Sciences

Date determined

2007-05-07

Revision date

2015-03-23

Main field of study

Statistics

Course level

First cycle

Advancement level

G1X

Course offered for

- Bachelor's Programme in Cognitive Science

Entry requirements

For admission to the course, the specific entry requirements that apply for admission to the Bachelor's Programme in Cognitive Science must be satisfied.

Intended learning outcomes

On completion of the course, the student should be able to

- formulate scientific hypotheses and statistically process data to test them,
- interpret and draw conclusions of the results of statistical tests and be able to report them in writing
- account for properties of measuring scales, distributions and statistical tests,
- explain choice of research design, control measures and statistical method, based on the issue that is studied,
- assess and discuss reliability and validity in experimental studies.

Course content

The course focuses on the following fields

- scientific method,
- experimental design,
- control measures, measuring, scale levels,
- reliability and validity,
- correlation studies, field studies, questionnaire studies and experiments,
- ethical considerations in research,
- descriptive statistics, inference statistics and non-parametric statistics,
- z-score, correlation and prediction,
- sampling distribution, z-tests, independent and dependent t-tests, X² tests,
- one-way variance analysis, power and explained variance,
- survey and the sampling methodology,

Teaching and working methods

Teaching takes the form of lectures, seminars and group work. The student is expected to study independently, individually or in groups.

Examination

The course is examined through written examination and written assignments.

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