

Quasi-Experimentation and Statistical Analysis

Single subject and programme course

6 credits

Kvasiexperiment och statistisk analys

729G88

Valid from: 2020 Autumn semester

Determined by

Course and Programme Syllabus Board
at the Faculty of Arts and Sciences

Date determined

2019-12-03

Main field of study

Cognitive Science

Course level

First cycle

Advancement level

G2F

Course offered for

- Master Programme in Cognitive Science
- Bachelor's Programme in Cognitive Science

Entry requirements

General entry requirements for undergraduate studies
and

Social Studies, English and Mathematics corresponding to the level in Swedish
upper secondary education (Samhällskunskap 1b or 1a1 and 1a2, Engelska 6 and
Matematik 3b/3c and Matematik C)

and

40 ECTS credits from semester 1 and 2 of the programme, including Cognitive
Science Introductory Course 9 ECTS credits and at least one of the courses
Information Technology and Programming 12 ECTS credits, Research
Methodology and Statistics 9 ECTS credits, or Qualitative Research Methods 6
ECTS credits, or equivalent.

Exemption for Swedish

Intended learning outcomes

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

- design a quasi-experimental study based on a research question
- conduct a quasi-experimental study in an ethically relevant way
- analyze data from a quasi-experimental study
- interpret results from a quasi-experimental study

Course content

The course covers:

- design of quasi-experimental research studies based on advanced quantitative methods
- validity and reliability
- statistical analyzes with two or more variables, in particular ANOVA & multiple regression analysis
- critical analysis of scientific texts
- writing scientific texts
- applied ethics

Teaching and working methods

Teaching will take the form of lectures, seminars, labs and group work. Students are expected to work independently, both alone and in groups.

Examination

The course is examined by:

- project work with written and oral presentation, grading scale: EC
- individual oral presentations, grading scale: UG
- active participation in seminars, grading scale: UG

To get the grade Pass on the course, all parts must have the grade Pass. A higher grade is based on the project work.

Detailed information will be available in the course guide.

If special circumstances prevail, and if it is possible with consideration of the nature of the compulsory component, the examiner may decide to replace the compulsory component with another equivalent component.

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

ECTS, EC

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.

Department

Institutionen för beteendevetenskap och lärande