

## Advanced Statistical Methods

Avancerad statistik  
6 credits

Single subject and programme course

729A25

Valid from: 2018 Spring semester

<b>Determined by</b>	<b>Main field of study</b>	
Course and Programme Syllabus Board at the Faculty of Arts and Sciences	Cognitive Science	
<b>Date determined</b>	<b>Course level</b>	<b>Progressive specialisation</b>
2018-04-23	Second cycle	A1X
<b>Revised by</b>	<b>Disciplinary domain</b>	
	Social sciences	
<b>Revision date</b>	<b>Subject group</b>	
	Technology from a Social Perspective	
<b>Offered first time</b>	<b>Offered for the last time</b>	
Autumn semester 2016	Spring semester 2022	
<b>Department</b>	<b>Replaced by</b>	
Institutionen för beteendevetenskap och lärande	769A26	

## Course offered for

- Master Programme in Cognitive Science

## Entry requirements

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

## Intended learning outcomes

On completion of the course, the student should on advanced level be able to

- chose, motivate their choice and critically evaluate statistical analysis methods in relation to research questions
- perform, interpret and report analysis of variance, regression analysis and factor analysis on data arranged to fit these analysis methods
- perform, interpret and report one of the above mentioned analysis methods on real world messy data
- describe and perform statistical analysis methods so that they are reproducible.

## Course content

The following is studied in the course

- choice of analysis methods
- analysis of variance
- regression analysis
- factor analysis
- interaction effects
- reproducibility of analysis
- open data
- presentation of results in journals

## Teaching and working methods

Teaching primarily takes the form of lectures, assignments, seminars, and independent studies.

## Examination

The course is examined through assignments and through presentation of an own analysis.

Students failing an exam covering either the entire course or part of the course two times 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.

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 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.

An examiner may also decide that an adapted examination or alternative form of examination if the examiner assessed that special circumstances prevail, and the examiner assesses that it is possible while maintaining the objectives of the course.

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.

If special circumstances prevail, the vice-chancellor may in a special decision specify the preconditions for temporary deviations from this course syllabus, and delegate the right to take such decisions.

