Syllabus for course at advanced level

Statistics 1
Statistik 1

7.5 Higher Education Credits
7.5 ECTS credits

Course code: PSMT15
Valid from: Autumn 2019
Date of approval: 2008-03-18
Changed: 2008-03-29
Department: Department of Psychology
Main field: Psychology
Specialisation: A1N - Second cycle, has only first-cycle course/s as entry requirements

Decision
This syllabus was approved by the Board of the Department of Psychology on 2008-03-18. Technical revision of the Student Department 2019-04-29.

Prerequisites and special admittance requirements
180 higher education credits, of which at least 90 credits must constitute Psychology I, II and III or equivalent studies in a related subject.

Course structure

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Course content
The course aims to:
(a) increase the participants’ understanding of basic statistical concepts, including probability, sampling distributions, resampling procedures and interval estimation; (b) provide the skills necessary for applied data analysis, including data management and quality assurance, data visualisation, choosing an appropriate analytical strategy and carrying out analyses using statistical software; and (c) provide training in communicating the results of statistical analyses in writing as well as orally with the help of slideshow software. The course covers the following topics:
- Data management, data screening, data visualisation;
- Probability, resampling techniques;
- Effect size and interval estimation;
- Correlation and linear regression;
- Variance analysis;
- Applied data analysis using statistical software.

Learning outcomes
In order to pass the course, students are expected to be able to:
- understand and describe basic statistical concepts (probability, sampling distribution, resampling, effect sizes, interval estimation, etc.) and how they are related to common statistical methods, such as parametric and non-parametric tests of group differences, variance analysis and multiple linear regression;
- plan and carry out statistical analyses of data, including data screening, descriptive analysis, data visualisation and effect size estimation.
Education
Instruction is given in the form of lectures, seminars, and exercises in the use of statistical software.
Course requirements/Mandatory components:
(a) Written report based on an analysis of existing data material
(b) Oral seminar presentation of the written report
(c) Written examination
Except for the seminar where written reports are presented, seminar attendance is optional. Students who have not passed (b) above will be offered a chance to present at an extra seminar, or individually for the course teacher.

Forms of examination
a) The course is examined on the basis of a written examination, a written paper, and an oral presentation using slideshow software.
b) Grades will be set according to a seven-point scale related to the learning objectives of the course:
   A = Excellent
   B = Very good
   C = Good
   D = Satisfactory
   E = Adequate
   Fx = Inadequate
   F = Totally Inadequate
   c) Students will be informed of the written grading criteria when the course starts.
   d) In order to pass the course, students must receive a grade of E or higher on the written examination, as well as a passing grade on the written report and the oral presentation.
   e) At least two examination opportunities should be offered during each course and semester. At least one examination opportunity should be offered during a semester when the course is not given. Students who receive the grade Fx or F twice by the same examiner are entitled to have another examiner appointed for the next examination, unless there are special reasons to the contrary. Such requests should be addressed to the department board. Students who receive the grade E or higher may not retake the examination to attain a higher grade.
f) Opportunities to complete a supplementary assignment in order to convert the grade Fx into a passing grade are not provided in this course.

Interim
If this course is discontinued, or its contents substantially altered, students have the right to be examined according to this syllabus once per semester for three further semesters.

Misc
The course is included in the General Master's Programme in Psychology 120 hp

Required reading
Up-to-date information about the required reading will be available on the department website at www.psychology.su.se