



DEPARTMENT OF PSYCHOLOGY

XXXnnnn Experimental methods, 7,5 higher education credits

Experimentell metodik, 7,5 högskolepoäng

Third Cycle/ Forskarnivå

Confirmation

This course syllabus was confirmed by the Department of Psychology on 2011-10-31, and was revised on 2015-02-03. The revised course syllabus is valid from and including autumn semester, 2017.

Entry requirements

The student must be admitted to the PhD Programme in Psychology.

The student must also have a passing grade on the third cycle course *General Research Methodology: Design, Analysis and Report (15 HEC)*, or have equivalent knowledge obtained in another manner.

Learning outcomes

A student who successfully completes the course should be able to:

Knowledge and understanding

- describe the principles for different types of experimental designs
- identify the necessary validity and reliability considerations in planning an experiment
- reason about questions relating to effect size, power and the assumptions of data analysis

Skills and abilities

- analyse experimental data using analysis of variance and regression analysis
- master strategies and methods relating to follow-up data analysis (e.g., contrasts, post hoc tests, mediation analysis)
- report experimental studies according to international standards for scientific journals

Judgment and approach

- show the ability to critically review experimental designs
- show the ability to independently plan and analyse experimental studies

Content

The course covers the research process for experimental studies, from design and analysis to publication. Following an introduction to the philosophy of science in relation to experimental studies, as well prominent types of research designs, the choice and testing of independent and dependent variables will be problematized. Questions about power, effect size, statistical assumptions and verification procedures are addressed. The course covers analysis of experimental data (e.g., main effects, interactions, a-priori contrasts, post hoc tests, mediation analysis) for different types of designs. The course furthermore includes a section about how experimental studies are reported, including publication strategies.

Form of teaching

Teaching will take place in the form of lectures, seminars and exercises.

Language of instruction:

Teaching can take place in English or Swedish, depending on the needs of the students.

Grades

The grading scale comprises: Pass (G) and Fail (U).

Forms of assessment

Examination will take place through written assignments and active participation in seminars and exercises.

Attendance is obligatory for exercises and seminars. Arrangements to compensate for absence are made in agreement with the course coordinator.

Course evaluation

The course coordinator is responsible to ensuring that students have the opportunity to complete a course evaluation at the end of the course. The course evaluation is summarized and the processed in FUB.

Additional information

Registration for the course is made with the Postgraduate studies officer at the Department of Psychology.

The course literature is available in the form of an attachment