Faculty of Social Sciences

SIMM49, Social Sciences: Experimental Design for Social Scientists, 7.5 credits

Samhällsvetenskap: Samhällsvetenskaplig experimentdesign, 7,5 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by Graduate School Board on 2019-09-24 to be valid from 2020-01-20, spring semester 2020.

General Information

The course is offered as an interdisciplinary single subject course in Social Science at the second-cycle level and as an optional course within several Master Programmes, 120 higher education credits, at the Faculty of Social Sciences.

Language of instruction: English

Main field of studies	*Depth of study relative to the degree requirements*
Media and Communication Studies	A1N, Second cycle, has only first-cycle course/s as entry requirements
Sociology	A1N, Second cycle, has only first-cycle course/s as entry requirements
Education	A1N, Second cycle, has only first-cycle course/s as entry requirements
Gender Studies	A1N, Second cycle, has only first-cycle course/s as entry requirements
Social Anthropology	A1N, Second cycle, has only first-cycle course/s as entry requirements
Political Science	A1N, Second cycle, has only first-cycle course/s as entry requirements
Social Work	A1N, Second cycle, has only first-cycle course/s as entry requirements
Sociology of Law	A1N, Second cycle, has only first-cycle course/s as entry requirements

Human Geography	A1N, Second cycle, has only first-cycle course/s as entry requirements
Development Studies	A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

Upon completion of the course, the student shall be able to:

Knowledge and understanding

- Understand basic experimental design (A/B design).
- Understand measurements and their relationship to experimental design, validity and reliability.
- Understand sampling procedures such as randomization, stratification, matching, and their relationship to reliability and validity of results.
- Be familiar with the following experimental designs: repeated measures, within vs between participant designs, factorial designs.
- Reason about sample populations.
- Reason about causality and confounds.

Competence and skills

- Form a research question within the students area of research interest and translate the question into an appropriate experimental design.
- Select, design and/or evaluate appropriate measures.
- Set up and document an experimental work-flow from planning to execution and data-management using an open science perspective.
- Plan experiments to be conducted in the lab, in the field, on the internet, and as part of evaluating interventions.
- Identify natural experiments.

Judgement and approach

- Critically evaluate experimental research within the social sciences with respect to ethics, strength of evidence, strength and weaknesses of design, and strength and weaknesses of sample population.
- Make decisions about whether the experiment tests a hypothesis, estimates an effect, makes a prediction or explores a new area, and how this relates to design issues such as number of measures and type of control.

Course content

The aim of the course is to introduce the student to experimental research in the social sciences. The course covers all elements of designing experiments, including setting up research questions connected to theory, designing the structure of the experiment, selecting appropriate measurements and planning for analysis and data-handling.

The course covers natural experiments, laboratory experiments, field experiments, interventions and experiments on the web. In addition, the course also covers reproducibility/replicability, validity, reliability, and ethical issues when conducting research on humans.

Some of the concepts are illustrated by simple statistics and web-simulations.

Course design

The course comprises lectures, discussion seminars and hands-on laboratory sessions.

Unless there are valid reasons to the contrary, compulsory participation is required in the discussion seminars and laboratory sessions. Students who have been unable to participate due to circumstances such as accidents or sudden illness will be offered the opportunity to compensate for or re-take compulsory components. This also applies to students who have been absent because of duties as an elected student representative.

Assessment

Assessment is based on an individual portfolio consisting of an open note-book documenting the research process and an individually written final experimental proposal including an outline of an analysis plan

The course includes opportunities for assessment at a first examination, a re-sit close to the first examination and a second re-sit for courses that have ended during that school year. Two further re-examinations on the same course content are offered within a year of the end of the course. After this, further reexamination opportunities are offered but in accordance with the current course syllabus.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, E, D, C, B, A.
The student's grade on the course will be determined based on the result of the individual portfolio and final experimental proposal.

The grade for a non-passing result is Fail. The student's performance is assessed with reference to the learning outcomes of the course. For the grade of E the student must show acceptable results. For the grade of D the student must show satisfactory results. For the grade of C the student must show good results. For the grade of B the student must show very good results. For the grade of A the student must show excellent results. For the grade of Fail the student must have shown unacceptable results.

At the start of the course, students are informed about the learning outcomes stated in the syllabus and about the grading scale and how it is applied on the course.

Entry requirements

To be admitted to the course, students must have completed 150 credits including a Bachelor's degree project in the social sciences, humanities or the equivalent.

Oral and written proficiency in English corresponding to a Pass in English 6/B from Swedish upper secondary school is a requirement. The assessment of corresponding qualifications is made with reference to national guidelines.

Subcourses in SIMM49, Social Sciences: Experimental Design for Social Scientists

Applies from V20

2001 Experimental Design for Social Scientists, 7,5 hp
Grading scale: Fail, E, D, C, B, A