

Applied Research Design for Computational Social Science

Tillämpad forskningsdesign för Computational Social Science
7.5 credits

Single subject course

771A47

Valid from: 2026 Autumn semester

Determined by Chairman of the Course and Programme Syllabus Board at the Faculty of Arts and Sciences	Main field of study Computational Social Science	
Date determined 2026-03-26	Course level Second cycle	Progressive specialisation A1N
Revised by	Disciplinary domain Social sciences	
Revision date	Subject group Other Subjects within Social Science	
Offered first time Autumn semester 2025	Offered for the last time	
Department Institutionen för ekonomisk och industriell utveckling	Replaced by	

Entry requirements

- 180 ECTS credits passed including 90 ECTS credits within one of the following areas humanities, social-, cultural-, behavioural-, natural-, computer-, or engineering-sciences
- 15 ECTS credits passed in one or several of the following subjects:
 - Statistics
 - Mathematics
 - Computer science
- English corresponding to the level of English in Swedish upper secondary education (Engelska 6 or Engelska nivå 2)
 - Exemption from Swedish

Intended learning outcomes

After completion of the course, the student should at an advanced level be able to:

- Formulate and motivate social scientific research questions, connecting them to relevant theories and literatures in social science.
- Evaluate and justify the selection of computational methods for answering social scientific research questions.
- Assess data needs and related operationalizations for computational social science research designs.
- Compare, critique, and defend different computational social science research designs.
- Identify and resolve ethical issues in conducting research in computational social science.

Course content

This course offers preparation for conducting social scientific research using a computational approach. The focus of the course is preparation of a social scientific research proposal as a basis for a thesis, research article, or report. Along the way, best practices with respect to writing, reference management, open science, ethical research conduct, and related topics are presented.

Teaching and working methods

The teaching consists of lectures, seminars and independent study.

Language of instruction: English.

Examination

The course is examined through

- Individual written examination and mandatory seminars. Grading scale: EC

The examination can give a total of 100 course credits. For a passing final grade (E) on the course, all individual written assignments corresponding to 40 course credits are required. For a higher final grade, the following are required:

For a final grade D, at least 52 course credits are also required

For a final grade C, at least 64 course credits are also required

For a final grade B, at least 76 course credits are also required

For a final grade A, at least 88 course credits are also required

Detailed information about the examination can be found in the study 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 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

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 conducted in such a way that there are equal opportunities with regard to sex, transgender identity or expression, ethnicity, religion or other belief, disability, sexual orientation and age.

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.

About teaching and examination language

The teaching language is presented in the Overview tab for each course. The examination language relates to the teaching language as follows:

- If teaching language is “Swedish”, the course as a whole could be given in Swedish, or partly, or as a whole, in English. Examination language is Swedish, but parts of the examination can be in English.
- If teaching language is “English”, the course as a whole is taught in English. Examination language is English.
- If teaching language is “Swedish/English”, the course as a whole will be taught in English if students without prior knowledge of the Swedish language participate. Examination language is Swedish or English depending on teaching language.