



LUND
UNIVERSITY

Faculty of Social Sciences

SGER44, GIS: Geographical Information System for the Social Sciences, Advanced Applications, 15 credits

*GIS: Geografiska Informationssystem för Samhällsvetenskap,
Avancerade tillämpningar, 15 högskolepoäng*
Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by Faculty Board of Social Sciences on 2011-11-17 and was last revised on 2016-09-06 by the board of the Department of Human Geography. The revised syllabus applies from 2017-01-16, spring semester 2017.

General Information

The course is offered as a freestanding course.

Language of instruction: English

Main field of studies

Human Geography

Depth of study relative to the degree requirements

A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

To pass the examination, students must be able to

Knowledge and understanding

- demonstrate knowledge and understanding of key theoretical conceptualizations and practical applications of GIS for the social sciences as well as other major research and planning projects,
- demonstrate understanding of the spatial analysis skills needed to critically interpret and evaluate different GIS-related methods,
- demonstrate an understanding of the main principles of GIS, including data collection, data management, data analysis and visualization of geographic information,

Competence and skills

- demonstrate advanced skills in spatial analysis with competence in collecting geographical data, data management, analysing data presenting and communication spatial information
- demonstrate complex skills in GIS through the ability to handle several analytical functions,
- demonstrate the ability to independently search for information within themes of the course, critically analyse and evaluate information sources, and effectively communicate results,

Judgement and approach

- demonstrate ability to recognise the potential of GIS and spatial analysis in other areas of scientific enquiry,
- demonstrate ability to compare pros and cons with different GIS-methods relevant to social science,
- demonstrate ability to critically reflect on limitations of GIS-related data and methods.

Course content

The course aims to provide an advanced understanding of the rapidly growing field of GIS (geographic information systems, for students and staff interested in applying it within their research or work. The course provides an introduction to current research and applications of GIS in social sciences. The lectures and course literature provides an introduction to principles of specific GIS applications and related research. In this course, students practically apply advanced GIS analysis linked to ongoing research. During the course, students work with high-quality GIS software and tools for reporting, analysing, processing, visualizing and disseminating geographic information. The course also covers central debates and development in the field of GIS.

Course design

Teaching is carried out through a mixture of lectures, readings, laboratory lessons and seminars. Unless there are valid reasons to the contrary, compulsory participation is required in seminars. 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

The assessment will be based on four written take-home exam and three oral seminar presentations.

Three opportunities for examination are offered in conjunction with the course: a first examination and two re-examinations. Two further re-examinations on the same course content are offered within a year of the end of the course. After this, further re-examination opportunities are offered but in accordance with the current course

syllabus.

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 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.

The oral seminar presentation are exempted from the grading scale above. The grades awarded for these components are Pass or Fail. For the grade of Pass, the student must show acceptable results. For the grade of Fail, the student must have shown unacceptable results.

The calculation of the course grade is determined by student's performance on the written take-home exams, where all exams are weighted equally. The calculation is based on a mathematical formula in which the letter grades are translated into the following figures: A=5.0; B=4.0; C=3.5; D=3.0 and E=2.5. An average is then calculated. Figures are rounded down, with the exception of the grade of A for which the figure of 4.5 and over is rounded up to A.

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 in the course.

Entry requirements

The course builds on previous studies in social sciences and in basic GIS. To be admitted to the course, students must have:

- at least 150 credits, including a Bachelor thesis in a discipline in human geography, social sciences, economics and management, social science-oriented disciplines in humanities, or another corresponding educational background.
- basic GIS-related skills, e.g. SGER43 GIS: Geographical Information System for the Social Sciences, 15 credits, or the equivalent.
- oral and written proficiency in English equivalent to English 6/B (advanced) from Swedish upper secondary school is a requirement. International qualifications will be assessed in accordance with national guidelines.

Subcourses in SGER44, GIS: Geographical Information System for the
Social Sciences, Advanced Applications

Applies from V12

1101 GIS: Geographical Information System for the Social Sciences, 15,0 hp
Grading scale: Fail, E, D, C, B, A