



LUND
UNIVERSITY

Faculty of Social Sciences

SGER43, GIS: Geographical Information System for the Social Sciences, 15 credits

GIS: Geographical Information System for the Social Sciences, 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 2016-12-06 by the board of the Department of Human Geography. The revised syllabus applies from 2017-03-15, autumn 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 of influential theoretical and practical discourse and concept formation in the use of GIS in the social sciences and other national research,
- demonstrate knowledge of data analysis and presentation of geographic information,
- demonstrate an understanding of GIS and related basic analytic functions,

Competence and skills

- demonstrate the ability to perform basic spatial analysis and visualization using GIS,
- demonstrate the ability to apply GIS in practice,
- demonstrate skills in data management,
- demonstrate the ability to independently search for GIS-related data and information about the course topics,

Judgement and approach

- demonstrate the ability to see the possibilities of GIS in other research settings
- demonstrate the ability to critically examine maps and analysis techniques related to spatial problems,
- demonstrate the ability to critically analyze and evaluate geographic information and its sources, and effectively communicate the results.

Course content

The course aims to give an introduction to the rapidly expanding field of GIS, for students interested in applying it within their research or work. The course provides an introduction to some key debates and developments in GIS and the most significant theories and practical applications. During the course, the students will be introduced to potential applications of GIS in various fields, but with special focus on issues within social science. Students are also introduced to different sets of geographic data, including remote sensing data. The lectures give an introduction to the principles of GIS and relevant research within the field. In laboratory sessions, students are introduced to basic and advanced methods applied on a wide and varied source material.

Course design

Teaching consists of a mix of lectures, laboratory sessions, seminars, literature studies, work in small groups and tutoring. In connection with the lectures, a series of practical seminars and workshops are given where students are introduced to the most common GIS softwares. This gives students knowledge about different programs, ways to manage geographic information, and knowledge of how GIS can be used in a particular research area, so that they acquire the necessary skills for independent application and usage of GIS. Literature studies are done in parallel with teaching and laboratory work.

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 course is assessed written assignments, a written take-home exam and a written project work.

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 written assignments 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 exam (weighted 30 %) and the project work (weighted 70 %). 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. To be admitted to the course, students must have at least 150 credits, including a Bachelor thesis in a discipline in social sciences, economics and management, social science-oriented discipline in humanities, or another corresponding educational background.

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.

Further information

The course cannot be included in a degree together with the course SGEM31 Human Geography: Geographical Information Systems (GIS) Interdisciplinary Application (15 credits) or SGER41, GIS: Geographical Information System for the Social Sciences (15 credits).

Subcourses in SGER43, GIS: Geographical Information System for the
Social Sciences

Applies from V12

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