

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 is an old version, approved by Faculty Board of Social Sciences on 2011-11-17 and was valid from 2012-01-01, spring semester 2012.

General Information

The course is offered as an interdisciplinary single subject course in human geography, geographical information systems, on the master's level.

Language of instruction: English

Main field of studies	Depth of study relative to the degree requirements
Human Geography	A1N, Second cycle, has only first-cycle course/s as entry requirements
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Learning outcomes

The course aims to provide an advanced understanding of the rapidly growing field of GIS, for students and staff interested in applying it within their research or work. It is strongly interdisciplinary in scope, and thus is appropriate for students from a diverse set of backgrounds. This would include students with undergraduate degrees in the social and human sciences, economics, sustainability and development studies as well as a range of other disciplinary as well as professional backgrounds. By offering students considerable flexibility in their choice of framing and design of their projects, the course seeks to accommodate individual research interests and needs at an advanced level.

Knowledge and understanding

Upon completion of the course, participants should be able to:

- demonstrate knowledge and understanding of key theoretical and practical discourses around the use of GIS for application in social science as well as in other major research and planning projects.
- show skills in geographical analysis and spatial representation with specific emphasis on the development and main principles of GIS, incorporating proficiency in data collection, data management, data analysis and presentation of geographic information.
- show advanced skills in GIS to deal with the analytical functions of a GIS and and ability to recognise the potential of GIS in other areas of scientific enquiry
- show an understanding of the analysis of key, specific dilemmas facing modern societies and individuals and an ability of critical interpretation and evaluation of various analysis methods for spatially oriented problems.
- command scientific communication and monitor knowledge development within the field of studies.
- demonstrate advanced knowledge and skills for careers in academia, public and private sector, and other commercial and professional fields where an understanding of modern GIS-software is an advantage.

Course content

This course is designed to equip students with a range of advanced knowledge and skills needed to complete a substantive piece of independent, social scientific research in GIS. It will cover key conceptual debates and developments in GIS. The course aims to provide an extensive awareness of theories and practises of GIS. A critical assessment of the principles of GIS will be covered in the theoretical lectures.

The course will provide the participants with a high level of practical skills and experience in the use of high quality hardware and software tools for input, analysis, management, and visualization of geographic information. It will develop a range of transferable skills, with special emphasis on spatial analysis. A combination of lectures, laboratory work and independent work through project work will also ensure a strong relationship between theory and a wide range of possible applications.

Course design

Teaching is carried out through a mixture of lectures, seminars, and readings, other small group teaching methods and supervision. Compulsory participation applies to seminars. Students are expected to study the course literature side by side with teaching and practical laboratory work.

Assessment

The course is assessed through exercises, presentations, seminar participation, individual project work and written or oral examination. Re-examination will be provided 4-6 weeks after the end of the course. If necessary, a second re-examination will be offered at a later date. Examination will be given during the academic year

only.

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 grades awarded are A, B, C, D, E or Fail. The highest grade is A and the lowest passing grade is E. 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 in the course.

Entry requirements

The course builds on previous studies in social sciences and in basic GIS. To be qualified the student must have at least 150 credits, including a Bachelor thesis in a discipline in social sciences, economics and management, social science-oriented disciplines in humanities, or another corresponding educational background. Basic GIS-related skills are required, e.g. Geographical Information Systems (GIS): Basic applications (SGEG05), or another corresponding background.

A high level of proficiency in the English language is necessary (IELTS with a minimum of 6.0 (none of the sections under 5.0), or TOEFL with a minimum of 550 p (computer-based test).

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