

Course content

Autumn 2014, this course will be taught in English only.

Geographical Information Systems (GIS) is a computer system designed to collect, manage, edit, analyze and present spatial information. This course introduces the basic concepts in mapping and GIS that will enable the students to make use of the system to study social phenomena. The following concepts will be covered: the history of GIS in Geography, maps and spatial representations, collection and management of spatial data, spatial analysis, map design and visualization, uncertainty and how to deal with it. The lectures will focus in particular on GIS and relevant concepts. In addition, a series of seminars will enable the students to make practical use of GIS with hands-on experience. The course will make use of ESRI ArcGIS software, in addition to introducing open-source alternatives. A group project will integrate the concepts covered in the lectures with experience from the seminars to explore a current research question.

Learning outcome

The students will:

- Understand what makes spatial data special data.
- Learn about the most common file formats, sources for data in a GIS and how to merge spatial and non-spatial data.
- Learn how to develop research questions to study spatial phenomena.
- Learn spatial analysis, and how to make use of these techniques in studying social processes and phenomena.
- Identify common errors and uncertainties and how to deal with them accordingly.

You will:

- Develop a spatial research question related to scholarly interests.
- Identify, collect and manage spatial data for use in a GIS.
- Plan and carry out your own GIS analysis on selected topic.

General knowledge

You will:

- Explain how GIS and social scientific research effectively can be integrated.
- Demonstrate the use of GIS as a social scientific research method.
- Discuss critically questions related to reliability and validity in spatial data.

Admission

Students at UiO must [apply for courses](#) in StudentWeb.

International applicants, if you are not already enrolled as a student at UiO, please see our information about [admission requirements and procedures for international applicants](#).

The examination in this course is not available for external candidates. Only students admitted to the course may sit for the examination.

Prerequisites

Recommended previous knowledge

Basic computer skills is relevant to make use of this course. The students should know how to use Windows to administer files and folders. Basic use of Excel is an advantage as much data in GIS comes in tabular formats.

Teaching

The course will be taught at Blindern Campus at the University of Oslo.

Teaching will be held in English. In addition, all syllabus will be in English.

The seminar assignments are compulsory. While students do not have to attend each seminar, it is highly recommended. During the semester, two quizzes have to be answered during the course of the semester (on frontier). One mid-way and one at the end of the course. The questions will consists of questions from topics covered in lectures and seminars. Both the quizzes and all seminars must be submitted to be accepted for examination.

Students that does not complete all compulsory work will not be entitled for examination. An accepted assignment is valid as long as the course is offered.

Access to teaching

A student who has completed compulsory instruction and coursework and has had these approved, is not entitled to repeat that instruction and coursework. A student who has been admitted to a course, but who has not completed compulsory instruction and coursework or had these approved, is entitled to repeat that instruction and coursework, depending on available capacity.

Examination

Examination in this course consists of two parts. One group assignment accounting for 30 % of the final grade. The second part is a 3 hours school exam. The group assignment should consists of 10-12 pages in addition to reference list.

Both the group assignment and the school exam must be approved in the same semester.

When submitting the group assignment, students are required to submit a [compulsory statment](#) regarding plagiarism.

All group assignments will be checked for plagiarism using text recognition system Ephorus.

[Past exams](#)

Language of examination

The students can choose whether they will write the group assignment or school exam in English, Norwegian, Swedish or Danish.

Grading scale

Grades are awarded on a scale from A to F, where A is the best grade and F is a fail. Read more about [the grading system](#).

Examination results are available in StudentWeb three weeks after the date of submission, if no other information is given on the semester page of the current semester.

Explanations and appeals

[Explanations & appeals at the Department of Sociology and Human Geography](#)

Resit an examination

Students who due to illness or other valid reason of absence were unable to take the final exam may apply for postponed exam. Postponed exams are given either later in the same semester or early in the semester following the exam in question. Documentation of valid reasons for absence from the regular exam must be submitted upon application to take a postponed exam.

Students who have failed an exam and students who wish to re-take an exam to achieve a better grade may not participate in make-up exams, but must re-take the exam when it is regularly scheduled.

Special examination arrangements

Students may apply for access to alternative exam resources or exam forms on the basis of chronic illness and/or special needs that create a marked disadvantage to other students in the exam situation. Mothers who are breastfeeding may apply for extra time to complete the exam.

Application forms for special examination arrangements on school-exams should be sent to The Faculty of Social Science. Applications for special examination arrangements on other exams should be sent to the Department which organizes the course.

Evaluation

Feedback from our students is essential to us in our efforts to ensure and further improve the high quality of our programmes and courses. All courses are subject to continuous evaluation. At regular intervals we also ask students on a particular course to participate in a more comprehensive, periodic evaluation of this course.