



DEPARTMENT OF EARTH SCIENCES

NGN190 Geographical Information Systems 2 (GIS), 7.5 credits

Geografiska informationssystem 2 (GIS), 7,5 högskolepoäng

First Cycle

Confirmation

This course syllabus was confirmed by Department of Earth Sciences on 2010-09-06 and was last revised on 2022-12-06 to be valid from 2023-01-16, spring semester of 2023.

Field of education: Science 100%

Department: Department of Earth Sciences

Position in the educational system

The course includes 7.5 credits at undergraduate level and can be included in a Bachelor's degree in Earth Science and Geography. The course is also offered as an elective course subject to availability.

The course can be part of the following programmes: 1) Bachelor's Programme in Earth Sciences (N1GVS), 2) Bachelor's Programme in Geography (N1GEO) and 3) Master's Programme in Earth Sciences (N2GVS)

Main field of studies

Geography

Environmental Science

Earth Sciences

Specialization

G1F, First cycle, has less than 60 credits in first-cycle course/s as entry requirements

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Entry requirements

Admission to the course requires at least passing grade of at least 2 credits in the course NGN180 Geographical Information Systems (GIS) - Introduction, 7.5 credits, or passed the GIS section of GE0400 Geography: Basic Course, 30 credits or GVS080 Geographical Information Systems: GIS, 7.5 credits or equivalent.

Applicants with equivalent qualifications may, after assessment and approval, be admitted to the course.

Learning outcomes

On successful completion of the course the student will be able to:

Knowledge and understanding

- identify principles of geographic data analysis and presentation using GIS.

Competence and skills

- independently search, select and evaluate geographic data in GIS for analysis.
- collect geographic data from various sources.
- communicate the results in writing.

Judgement and approach

- explain and justify the application of GIS as a tool to solve complex spatial problems.
- compare and evaluate different sources of spatial data and data collection techniques intended for spatial information processing.

The course is sustainability-related, which means that at least one of the learning outcomes clearly shows that the course content meets at least one of the University of Gothenburg's confirmed sustainability criteria.

Course content

The course provides an in-depth understanding of how GIS as a tool can be used to solve spatial problems of different complexity and how GIS can be used in evaluation and comparison of different spatial data sources and data collection techniques.

The course is web-based and deepens basic GIS knowledge and skills such as data processing analysis and visualization. Reporting of results is carried out in writing.

The course includes two modules:

- Module 1 consists of practical exercises and assignments
- Module 2 consists of a minor project work

Form of teaching

The course is offered as online distance learning.

Language of instruction: English and Swedish

Assessment

Project work, 4 hp: U/G/VG

Exercises, 2 hp: U/G

Tasks, 1,5 hp: U/G

If a student who has twice received a failing grade for the same examination component wishes to change examiner ahead of the next examination session, such a request should be made to the department in writing and should be approved by the department unless there are special reasons to the contrary (Chapter 6 Section 22 of the Higher Education Ordinance).

If a student has received recommendation from the University of Gothenburg for study support for students with disabilities, the examiner may, where it is compatible with the learning outcomes of the course and provided that no unreasonable resources are required, decide to allow the student to sit an adjusted exam or alternative form of assessment.

In the event that a course has ceased or undergone major changes, students are to be guaranteed at least three examination sessions (including the ordinary examination session) over a period of at least one year, but no more than two years after the course has ceased/been changed. The same applies to internships and professional placements (VFU), although this is restricted to just one additional examination session.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).

The grade for the entire course is determined by the grade for the project work when all modules in the course have been passed.

Course evaluation

The students are given the opportunity to make a anonymous written evaluation of the course.

The results of and possible changes to the course will be shared with students who participated in the evaluation and students who are starting the course.