



Faculty of Health, Science and Technology
Geo-Science

Syllabus

GIS as a Tool in Social Planning

Course Code:	NGGA17
Course Title:	GIS as a Tool in Social Planning <i>GIS som verktyg för samhällsplanering</i>
Credits:	15
Degree Level:	Undergraduate level
Progressive Specialisation:	First cycle, has at least 60 credits in first-cycle course/s as entry requirements (G2F)

Major Field of Study:
NGA (Physical Geography)

Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2024-08-21, and is valid from the Spring semester 2025 at Karlstad University.

Prerequisites

60 ECTS credits completed in the Spatial and Social Planning Programme, or equivalent

Learning Outcomes

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

- give an account of and use basic geographic information technology in terms of methods and applications,
- analyse and use geographic infrastructure in social planning projects,
- describe the geographic infrastructure and data sources available for GIS, including data produced in Sweden by responsible authorities,
- demonstrate the ability to use GIS independently in analyses and illustrations of different planning issues,
- use a geographic information system in practice, and
- plan, carry out, and report a GIS project in social planning.

Content

The course introduces the area of Geographic Information Technology (GIT) and the use of Geographic Information Systems (GIS). The representation of reality in digital form in a GIS and how the data are collected and made available are treated.

Students are introduced to a common GIS software. The introduction exercises are alternated with software exercises, which gives students the opportunity to reinforce and apply their knowledge.

Instruction is in the form of lectures, seminars, computer sessions, and group work. Theory and practice alternate throughout the course.

An important part of the course is understanding the role of geographic information in society today and the available infrastructure of geographic information in the form of:

- institutional frameworks (for instance legislation)
- standards, specifications, and guidelines for using geographic data
- regulations on basic geographic data needed in society
- technological infrastructure
- research, development, and education.

Students complete a group project about a topic of their own choice, use GIS in the project, and write individual project reports.

Reading List

See separate document.

Examination

Assessment is based on individual written hand-in assignments, an individual written project report, and a group project presented orally.

If students have a decision from Karlstad University entitling them to Targeted Study Support due to a documented disability, the examiner has the right to give such students an adapted examination or to examine them in a different manner.

Grades

One of the grades 5 (Pass with Distinction), 4 (Pass with Some Distinction), 3 (Pass), or U (Fail) is awarded in the examination of the course.

Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

Course Certificate

A course certificate will be provided upon request.

Additional information

The course NGGA17 cannot be included in the same degree programme as the course NGGAD1.

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.