



Department of Earth and Environmental Sciences

GISN37, GIS: Research Methodology, 5 credits

GIS: Forskningsmetodik, 5 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2021-05-05. The syllabus comes into effect 2021-05-05 and is valid from the spring semester 2022.

General information

The course is an elective course for second-cycle studies for a Degree of Master of Science (120 credits) in geographic information science. The course is however recommended primarily for students who are to start the degree project for second-cycle studies.

Language of instruction: English

Main field of study

Geographical Information Science

Specialisation

A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

The aim of the course is that the student should acquire relevant methods, understanding and approach to be able to complete the education with a degree project of high-quality.

Knowledge and understanding

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

- account for basic philosophy of science
- explain and develop relevant research methodology to solve a scientific problem
- evaluate different tools for literature search.

Competence and skills

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

- use tools for literature search
- plan a scientific project based on applicable theories,
- use selected presentation tools for conveyance of scientific information.

Judgement and approach

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

- compile, evaluate and discuss choice of materials and analytical methods to solve a given problem
- critically review, evaluate and discuss the reliability of source materials and analyses.

Course content

The course consists of four subparts:

- Library science and different tools and methods for literature search.
- Philosophy of science dealing with different concepts such as realism, idealism, empiricism and positivism are treated.
- Research methodology with modules dealing with both quantitative and qualitative methods. Interview technique and participating observation techniques are presented and discussed.
- Argumentation theory that treats proficiencies to identify and analyse sustainable and unsustainable arguments in e.g. a written text is developed in this module. Focus is on various types of arguments, e.g. deductive and inductive.

Course design

The course is a distance course and is distributed on the internet. It is flexibly designed, to facilitate for the student to carry out the course in a full-time or half-time study tempo. The course consists of a number of compulsory written assignments that are carried out individually. In these, the student reflects over the four main components in the course with an emphasis on the two final, quantitative and qualitative research methods and argumentation theory.

Assessment

Examination takes place in writing in the form of written assignments during the course and through a project work.

Students who do not pass an assessment will be offered another opportunity for assessment soon thereafter.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Grades

Grading scale includes the grades: Fail, Pass

To pass the whole course, passed written assignments and passed project work are required.

Entry requirements

Entry to the course requires general entry requirements, English B/6 and at least 180 credits.

Further information

The course cannot be included in qualification together with GISN27 GIS: Research methodology 5 credits.