



Department of Earth and Environmental Sciences

GISN15, GIS: Research Methodology, 7.5 credits

GIS: Forskningsmetodik, 7,5 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2007-03-01. The syllabus comes into effect 2007-07-01 and is valid from the autumn semester 2007.

General information

The course is a compulsory course for second-cycle studies for a Degree of Master of Science (120 credits) in geographic information science. The course is also elective for second-cycle studies for a Degree of Master of Science (120 credits) in physical geography and ecosystem analysis and geomatics.

Language of instruction: Swedish and English
The course is given in English.

Main field of study Specialisation

Physical Geography	A1N, Second cycle, has only first-cycle course/s as entry requirements
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Learning outcomes

The course intends to give the student necessary skills to plan and carry out a degree project at master's level. The aim of the course is that students should on completion of the course be able to:

Knowledge and understanding

- account for basic philosophy of science
- explain and develop relevant research methodology (e.g. testing of hypothesis) to solve a scientific problem
- evaluate different tools for literature search
- discuss different presentation tools.

Skills and abilities

- use tools for literature search
- plan a scientific work based on applicable theories,
- use chosen presentation tools for conveyance of scientific information

Judgement and approach

- 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 six subparts:

- Project plan. During the course, the student should acquire knowledge that leads to production of a project plan for implementation of a scientific work at master's level.
- Library science. In this part, different tools and methods for literature search are studied.
- Theory of knowledge. This part treats basic theory of knowledge. Different concepts such as realism, idealism, empiricism and positivism are treated.
- Research methodology. The part treats both quantitative and qualitative methods. Interview technique and participating observation techniques are presented and discussed.
- Argumentation theory. Skills to identify and analyse sustainable and unsustainable arguments in e.g. text material are developed within this part. Focus is on various types of arguments, e.g. deductive and inductive.
- Report writing. In this part, the student obtains knowledge in scientific report writing. Components such as layout, structure and contents are treated.

Course design

The course is a distance course and is distributed on the Internet. It is flexible designed which facilitate for the student to carry out the course on full-, half-, or part-time.

Assessment

Examination takes place through written open book examination at the end of the course combined with grading of written assignments and project work during the course. For students who have failed the regular examination, additional occasion in close connection to this is offered.

Grades

Grading scale includes the grades: Fail, Pass

To pass the entire course, approved examination, passed written assignments and passed project reports are required.

Entry requirements

Entry requirements is 90 credits and English B

Further information

The course can not be counted in a higher education qualification together with GIS404 Research methodology 5 credits or GISN27 Research Methodology 15 credits.