



LUND
UNIVERSITY

Faculty of Science

GISN14, GIS: Geographical Information Systems and Physical Planning, 7.5 credits

GIS: Geografiska informationssystem och fysisk planering, 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 to be valid from 2007-07-01, autumn semester 2007.

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.

Language of instruction: English

Main field of studies

Physical Geography

Depth of study relative to the degree requirements

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

Learning outcomes

The course intends to highlight, how geographic information systems can be used within physical planning in different levels (e.g. local and regional level). The aim of the course is that students should on completion of the course be able to:

Knowledge and understanding

- describe planning traditions
- account for different considerations that generally govern the planning process
- describe laws and guidelines that govern the planning process and the daily work with plans within public authorities at a general level
- account for spatial methods within planning that can be handled by GIS is, t.ex. decision theory and digital decision support (DSS), joining of different criteria in multi-criteria-evaluation (MCE), network analysis and 3D visualisation

- discuss strengths and weaknesses regarding the use of GIS in planning work.

Skills and abilities

- independently plan and carry out different planning tasks based on local and regional issues
- carry out assessments of analytical methods and their results and to incorporate these in the planning process
- analyse, understand and solve problems related to need versus access of data, different data sources and data quality
- use data in different format with different GIS programs

Judgement and approach

- compile, evaluate and discuss choice of data and analytical method to solve a given problem
- review, evaluate and discuss the reliability of analyses critically

Course content

The course consists of seven subparts

- Introduction to Physical planning, how does a planner work and what type of assignments and problems is a planner facing.
- GIS technology; concepts and how GIS can be integrated in planning processes as a decision support.
- Laws and regulations, how these and political processes influence the planning work.
- Architecture and building traditions, how should one think to preserve the nature of an area.
- Regional planning and integration of GIS for various types of localisation problems.
- GIS in detail planning, application of GIS methodology to describe, evaluate and solve different problems and present these digitally.
- Town planning, the structures of the city and its specific problems, data and GIS usage.

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.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, Pass.

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

Entry requirements

For admission to the course is required: English B and 90 credits including 30 credits GIS.

Further information

The course may not be included in a higher education qualification together with GIS411 Geographic information systems and physical planning, 5 credits.

Subcourses in GISN14, GIS: Geographical Information Systems and Physical Planning

Applies from H07

0701 Geographical Information Systems and Physical Planning, 7,5 hp
Grading scale: Fail, Pass