



LUND
UNIVERSITY

Faculty of Science

NGEN11, Physical Geography: Spatial Analysis, 7.5 credits

Naturgeografi: Rumslig analys, 7,5 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2009-09-11 to be valid from 2009-10-01, spring semester 2010.

General Information

The course is a compulsory course for Master of Science in geomatics and elective course for a Master of Science in physical geography. The course is also given as an individual course.

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

Learning outcomes

The course intends to give basic knowledge and practical skills in spatial analysis methodology.

On completion of the course, the student is expected to be able to:

Knowledge and understanding
explain correlations between geographic data,
interpret, discuss and apply regression of geographic data
explain and apply geostatistics
explain thoroughly the problem of scales within spatial analysis and geographic data,
describe at a general level analytical methods for large amounts of geographic data,
and
explain basic structure of geographic decision support systems.

Skills and abilities

independently carry out analyses and interpret results of regression analyses and understand and apply special spatial analytical methods on geographic data.

Assessment skills and approach

independently relate to both spatial and common statistical measures and methods, critically relate to geographic data and different analysis technologies, and evaluate the reliability of analyses carried out with different methods.

Course content

The course consists of 5 subparts:
regression and other basic modelling methods,
geostatistics,
scale problems,
analysis of large amounts of data, and
spatial decision support systems.

Course design

The theoretical part of the course is given as lectures that are followed by related thematic sections with practical assignments.

Assessment

Examination takes place through written examination at the end of the course. Submission of practical assignments and participation in laboratory sessions are compulsory. 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, Pass with distinction.

The grades in the course are pass with credit, passed and failed.

To pass the entire course, approved examination, passed written assignments and passed attendance on compulsory sessions are required.

The final grade is decided through joining the results of the parts that are included in the examination.

Entry requirements

For admission to course is required at least 90 credits within the fields of technology or science of which at least 30 credits should be within geographic information science or the equivalent. Further, basic knowledge in statistics is required equivalent NGEA07 physical geography theory and methodology, 15 credits, GISN21 GIS and statistical analysis, 5 credits or GISN02 GIS and statistical analysis, 7.5 credits.

Further information

The course may not be included in a higher education qualification together with GISN01, GIS and geostatics, 7.5 credits.

Subcourses in NGEN11, Physical Geography: Spatial Analysis

Applies from H09

0901 Spatial Analysis, 7,5 hp
Grading scale: Fail, Pass, Pass with distinction