Department of Physical Geography

Stockholm University

Syllabus

for course at advanced level

Applied Remote Sensing and GIS for Landscape Analysis
Tillämpad fjärranalys och GIS för landskapsanalys

15.0 Higher Education Credits
15.0 ECTS credits

Course code:	GE7062
Valid from:	Autumn 2013
Date of approval:	2012-11-19
Department	Department of Physical Geography
Main field:	Physical Geography and Quaternary Geology
Specialisation:	A1N - Second cycle, has only first-cycle course/s as entry requirements

Decision

This syllabus is approved by the Faculty of Science at Stockholm University, 19 November 2012.

Prerequisites and special admittance requirements

Admission to the course requires knowledge equivalent to at least 90 ECTS credits in biology-earth sciences, geography, Earth sciences, or equivalent. Also required is knowledge equivalent to Swedish upper secondary school course English B/English 6.

Course structure

Examination code	Name	Higher Education Credits
MOM1	Remote Sensing	7.5
MOM2	GIS	7.5

Course content

a. The course covers the theory and application of spatial analysis and visualization of remote sensing and GIS for landscape analysis. During the course training is provided in data management, and using algorithms as processing and visualization methods for scientific work.
b. The course consists of the following modules:
1. Remote Sensing (Fjärranalys) 7.5 credits
2. GIS (GIS) 7.5 credits

Learning outcomes

After the course, students are expected to be able:
• to critically evaluate research findings by reproducing and analyzing selected portions of published research
• to use remote sensing and GIS in physical geographical analyses
• to formulate and carry out independent projects with the use of remote sensing and GIS
• to extract and process quantitative geo- and biophysical measurements from geodata

Education

Instruction consists of lectures, seminars, exercises and project work.
Participation in seminars, exercises. project work and any associated integrated instruction is compulsory. In the event of special circumstances, the examiner may, after consultation with the teacher concerned, grant a student exemption from the obligation to participate in certain compulsory instruction.

Instruction is given in English.

Forms of examination

a. The course is examined as follows:
Knowledge assessment takes the form of written examination and oral presentation of individual project work.
Examination is in English.

b. Grades are assigned according to a seven-point goal-related grading scale:
A = Excellent
B = Very good
C = Good
D = Satisfactory
E = Sufficient
Fx = Fail (more work required before credit can be awarded)
F = Total fail

c. The grading criteria will be distributed at the beginning of the course.

d. To be awarded a pass, the minimum grade E is required as well as praticipation in all compulsory instruction.

e. Students who fail an ordinary examination are entitled to sit additional examinations as long as the course is offered. There is no restriction on the number of examinations. Examinations also include other obligatory elements of the course. Students who have passed an examination may not resit it in order to achieve a higher grade. Students who have failed on two occasions are entitled to request the appointment of a different examiner for the next examination. Any such request must be made to the departmental board.

f. There is no facility to improve the grade Fx to a pass grade in this course.

Interim

Students may request that the examination be conducted in accordance with this course plan even after it has ceased to be valid. However, this may not take place more than three times over a two year period after course instruction has ended. Requests must be made to the departmental board. The provision also applies in the case of revisions to the course plan.

Limitations

The course may not be included in degrees in combination with the course Applied Remote Sensing, GIS and Cartography for Landscape Analysis 15 credits (GE7048), or equivalent.

Misc

The course is part of Master's Programme in Landscape Analysis with Remote Sensing, GIS and Cartography, but can also be read as a separate course.

Required reading

Course literature is decided by the departmental board and described thereafter in an appendix to the course plan.