

Syllabus

for course at advanced level

Applied Aerial Photographic Techniques for Landscape analysis
Tillämpad flygbildsteknik för landskapsanalys

**7.5 Higher Education
Credits**
7.5 ECTS credits

Course code:	GE7082
Valid from:	Spring 2020
Date of approval:	2019-05-13
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 has been approved by the Board of Science at Stockholm University 2019-05-13.

Prerequisites and special admittance requirements

Admission to the course requires knowledge equivalent to at least 90 ECTS credits in biology, biology-earth sciences, geography, Earth sciences, or environmental sciences that must include Geographic Information Systems (GIS) 7.5 ECTS credits or equivalent knowledge. Also required is knowledge equivalent to Swedish upper secondary school course English 6.

Course structure

Examination code	Name	Higher Education Credits
HELA	Applied Aerial Photographic Techniques, Landscape analysis	7.5

Course content

The course deals with theory for, as well as processing and interpretation of, photogrammetric aerial image data in combination with other spatial data for applied landscape analysis. The course includes the production and use of various photogrammetric and cartographic data to create appropriate workflows and prerequisites for analysis where aerial photographic interpretation in 3D is included. The course provides training in the handling of digital photogrammetric 3D systems in connection with GIS.

Learning outcomes

After the course, students are expected to:

- locate and order aerial photos, manage orientation data and create photogrammetric projects
- use digital aerial photographic techniques in combination with other spatial data for data capture with a focus on vegetation and landscapes
- account for the limitations and advantages of the source materials and tools used, based on technical conditions, and the society's needs for knowledge.

Education

Instruction consists of lectures, seminars, exercises and field trips.

Participation in seminars, exercises, field trips 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.

Instructions are in English.

Forms of examination

a. The course is examined as follows: Knowledge assessment takes the form of

- written and oral examination
- practical interpretation test
- written and oral presentation of exercises

Examination is in English.

b. Grades will be set according to a seven-point scale related to the learning objectives of the course:

A = Excellent

B = Very good

C = Good

D = Satisfactory

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E = Adequate

Fx = Fail, some additional work required

F = Fail, much additional work required

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

d. In order to pass the course, students must receive a passing grade on all course and participate in all mandatory instruction.

e. Students who receive a failing grade on a regular examination are allowed to retake the examination as long as the course is still provided. The number of examination opportunities is not limited. Other mandatory course elements are equated with examinations. A student who has received a passing grade on an examination may not retake the examination to attain a higher grade. A student who has failed the same examination twice is entitled to have another examiner appointed, unless there are special reasons to the contrary. Such requests should be made to the department board.

The course includes at least two examination opportunities per year when the course is given. At least one examination opportunity will be offered during a year when the course is not given.

f. Students awarded the grade Fx are given the opportunity to improve their grade to E. The examiner decides the supplementary assignments to be performed and the pass mark criteria. The supplementary assignments will take place before the next examination session.

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 and the revisions of the course literature.

Limitations

The course may not be included in examinations in combination with courses Landscape Ecology - Digital Air Photo Interpretation (GE7061), Ecological Geography - Mapping, Analysis and Visualisation (GE7002) Ecological Geography, Theory and Methods (GE7035), Landscape Ecology - Mapping and Analysis (GE7060) or equivalent.

Misc

The course include teaching in the field, which may entail additional cost for the student.

The course is part of Master's Programme in Landscape Ecology but can also be read as a separate course.

Required reading

The course literature is decided by the department board and published on the Department of Physical Geography's website at least two months before the start of the course.