



AG1322 Photogrammetry 9.0

credits

Fotogrammetri

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for AG1322 valid from Autumn 2007

Grading scale

A, B, C, D, E, FX, F

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

AH1811 Geodetic Surveying II

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

Ability to apply and develop photogrammetry for production of spatial data and for non-topographic applications. Ability to plan aerial photogrammetric spatial data production and to analyse the resulting quality.

Course contents

- Mathematic and geometric basis of photogrammetry
- Coordinate transformations in space
- Perspective och projective imaging
- The photogrammetric camera and its calibration
- Aerial survey planning
- Collinearity and systematic image coordinate errors
- Coplanarity and analytic model creation
- Photogrammetric instruments and instrument quality
- Digital elevation models and orthophotos
- Applications in cartography, GIS and civil engineering
- Digital images, digital matching techniques
- Non-topographic photogrammetry
- 3D modelling

Disposition

Lectures 22h

Laboration 36h

Project 12h

Course literature

- Boberg, A. (2004). Introduktion till fotogrammetrin. KTH. In Swedish.
- Mikhail, Berthel and McGlone. Introduction to Modern Photogrammetry. Wiley & Sons.
- Torlegård, K (1999). Analytisk fotogrammetri och dess felteori. KTH. In Swedish.

(+ maybe some compendium made especially for this course)

Examination

- TEN1 - Examination, 4.5 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 4.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

Other requirements for final grade

Written examination (TEN1, 4,5 cr)

Laborations and Seminar (LAB1, 4,5 cr)

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.