AH2924 Engineering Surveying 7.5 credits

Ingenjörsgeodesi

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

Establishment

Course syllabus for AH2924 valid from Autumn 2008

Grading scale

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

Education cycle

Second cycle

Main field of study

Specific prerequisites

AH1811 Geodetic Surveying

Language of instruction

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

Intended learning outcomes

The aim of the course is to introduce the students to the fundamental tasks of engineering surveying.
The students will get basic theoretical and practical knowledge about different kind of surveying instruments and methods used in various engineering problems.

Course contents

1. Surveying instruments (theodolites, levels, electronic distance meters, total stations ...): principles, testing and adjusting.
2. Methods of precise distance and angular measurements
3. Determination of plane horizontal coordinates: fundamentals
4. Horizontal geodetic networks: design, observation and computation
5. Height determination: levelling, trigonometric and barometric methods
6. Setting-out and alignment methods and instruments
7. Mine surveying: connecting surveys and orientation with gyro theodolite.
8. Deformation measurements: methods and analysis

Disposition

Lectures 16 h
Laboration 16 h
Project 20 h

Examination

- TEN1 - Examination, 4.5 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory work, 3.0 credits, grading scale: P, 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

Project work (PROJ; 4.5p)
Approved laboration (LAB1; 3p)

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.