



# AH2924 Engineering Surveying

## 7.5 credits

Ingenjörsgéodesi

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

### Establishment

Course syllabus for AH2924 valid from Autumn 2010

### Grading scale

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

### Education cycle

Second cycle

### Main field of study

### Specific prerequisites

- A completed Bachelor of Science in Engineering or 180 credits academic studies in the field of Technical Science, Economics or Planning and documented proficiency in English corresponding to English B.
- AH1816 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.

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.