



# HS1732 Surveying 7.5 credits

## Fältnätning

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

## Establishment

Course syllabus for HS1732 valid from Spring 2011

## Grading scale

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

## Education cycle

First cycle

## Main field of study

The Built Environment, Technology

## Specific prerequisites

## Language of instruction

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

## Intended learning outcomes

Outcomes to receive an E grade:

Upon completion of the course, students shall be able to:

- Calculate plane coordinates for new points using these surveying techniques:
  - Polar measurements
  - Rectangular measurements
  - Intersection
  - Tying in
- Calculate elevation coordinates for new points using these surveying techniques:
  - Levelling
  - Trigonometric levelling
- Calculate the polar stakeout data for points
- Set up theodolites and levelling instruments
- Measure and record data
- Calculate measurement protocol
- Analyze measurement data with regards to major, systematic, and temporary errors

## Course contents

- Reference systems in planes and elevation
- Polar and rectangular measurements
- Intersection, tying in, resection
- Traverse
- Free station
- Levelling, trigonometric levelling
- Polar staking out methods
- Measurement and staking out with GPS assistance
- Geodetic theory of errors

## Course literature

Egeltoft, Tomas: Mätningsteknik

## Examination

- ÖVN1 - Exercises, 3.0 credits, grading scale: P, F
- TEN1 - Examination, 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 exam (TEN1, 4.5 credits) Grading scale A-F.

Approved field exercises (ÖVN1, 3.0 credits) Grading scale P/F

## 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.