



# AF269U Foundation Engineering 7.5 credits

Grundläggningsteknik och geokonstruktioner

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

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

## Establishment

Course syllabus for AF269U valid from Autumn 2015

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Built Environment

## Language of instruction

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

## Intended learning outcomes

The aim of this course is to give advanced knowledge on analysis and design of foundation constructions. After this course, the student will be able to:

- Understand foundation design in relation to ground movement.
- Design deep foundations, piled foundations, sheet piling constructions, retaining wall constructions and soil improvements.
- Evaluate the soil-structure interactions.
- Calculate stresses and strain in soil and structures.
- Evaluate deformations in the soil due to excavation and foundation works.

## Course contents

Foundation Design in Relation to Ground Movement

Foundation Construction

Deep Foundation

Piled Foundation

Sheet Piling

Retaining Walls

Soil Improvement

## Specific prerequisites

Basic knowledge in structural mechanics, structural engineering and fundamental course in soil mechanics or foundation engineering. Equivalent to at least 2-times 7,5 ECTS points.

## Course literature

Kompendium "Foundation Engineering" framtaget av avdelningen för Jord och Bergmekanik.

## Examination

- TEN1 - Examination, 4.5 credits, grading scale: A, B, C, D, E, FX, F
- ÖVN1 - Exercise, 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.

## Other requirements for final grade

Ten1-examination, 4,5 hp

Övn1-exercises, 3,0 hp

## 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.