



AF1758 Soil Mechanics 7.5 credits

Geoteknik

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

Establishment

The course syllabus is valid from Autumn 2025 according to decision of Director of First and Second Cycle Education: HS-2025-0582, 3.2.2. Decision date: 2025-03-17

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Completed courses: AF1763, AF1734

Course registration: AF1737, AF1744, AF1745

Language of instruction

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

Intended learning outcomes

After passing the course, the students should be able to:

- explain the impact of geotechnical and hydrogeological processes on the landscape
- interpret geological and geotechnical data
- perform and present basic geotechnical calculations
- account for the occurrence and flow of water in the soil
- calculate the total water demand and the runoff of waste and storm water based on given conditions.

Course contents

- Geotechnical investigation and sampling methods
- Stresses and settlements in soil
- Soil pressure and slope stability
- Ground reinforcement and foundations
- Soil water and groundwater
- Water requirements of a community
- Sustainability issues relevant to geotechnical engineering

Examination

- TEN1 - Written exam, 5.0 credits, grading scale: A, B, C, D, E, FX, F
- TEN2 - Written exam, 2.5 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.

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.