



AH1907 Installation 1. Road, Railways and Wastewater Networks 7.5 credits

Anläggning 1. Väg-, järnväg och VA-teknik

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

Establishment

Course syllabus for AH1907 valid from Autumn 2013

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Completed upper secondary education including documented proficiency in Swedish corresponding to Swedish B and English corresponding to English A, Mathematics D and Physics B.

Language of instruction

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

Intended learning outcomes

The overall aim of the course is to give the student fundamental knowledge in the subject area so that the he/she in a future work situation will be able to participate in the work, along with other colleagues. The student should after the course have sufficient knowledge in order to advance to higher courses. In concrete terms, this means that the student should be able to:

- explain the vocabulary and understand their mutual relationships
- carry out simple engineering tasks in the group
- carry out calculations in connection with the course's exercises
- know more advanced calculation program

Course contents

Highway- and track technology:

- Highway and railway (track) technology.
- Geometric design of highways and railways.
- Different types of highways, roadways, and railways.
- Highway- and railway construction material (bitumen, asphalt, unbound material).
- Climate, environment and drainage aspects.
- Mechanistic-empiric modeling / formulation of asphalt highways.

Road hydrology:

- Water-technological questions related to road construction.
- Storm water and traffic.
- Knowledge of materials for water and sewage piping system.
- Management and maintenance of water and sewage piping system.
- Planning process.
- Construction process.
- Operation and maintenance of water and sewage piping system.

Disposition

The course consists of lectures and two major exercises.

Course literature

Aktuell kurslitteraturförteckning finns på kurshemsidan.

Current course bibliography is available on the course home page.

Examination

- ÖVNA - Exercises, 2.5 credits, grading scale: P, F
- ÖVNB - Exercises, 2.5 credits, grading scale: P, F
- TENA - 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.

Other requirements for final grade

Passed written exam (2,5 ECTS credits)

Passed exercises (5 ECTS credits)

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.