



AL1304 Water Supply and Wastewater Treatment 7.5 credits

Vattenförsörjnings- och avloppsteknik

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

On 04/12/2019, the Dean of the ABE School has decided to establish this official course syllabus to apply from spring term 2022. registration number: A-2020-0879.

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Language of instruction

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

Intended learning outcomes

On completion of the course, the student should be able to:

- Describe the structure and dimensioning of various technical systems for drinking water and wastewater handling and how they are included as part of society's infrastructure.
- Describe requirements and aims for water and wastewater treatment as well as pipe networks.
- Apply knowledge in hydraulics, chemistry and biology in water and wastewater technology.
- Evaluate different water and sludge treatment processes to select appropriate technologies with regard to sustainable development and resource recovery.
- Describe both development trends for new system solutions and how older systems can be rebuilt to a better function.

Course contents

- VA technology as part of society's infrastructure
- Functional requirements of water-wastewater technical systems with waterworks, wastewater treatment plants and pipe networks
- Water use and water quality
- various water supply and wastewater treatment systems
- Drinking water treatment processes
- Wastewater treatment processes
- Sludge handling processes
- Comparison of different water-wastewater technical systems
- Study visits to waterworks and wastewater treatment plants

Specific prerequisites

At least two years of studies in the field of technology as civil engineering and urban management, environmental technology or other subject with clear relevance for the course and basic knowledge in physics, chemistry and mathematics.

Examination

- TEN1 - Written exam, 5.0 credits, grading scale: A, B, C, D, E, FX, F
- ÖVN1 - Exercise work, 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.

The examiner determines, based on recommendation from the KTH office of support to students with disabilities, possible adapted examination for students with documented, permanent disabilities.

The examiner may permit other examination formats at the re-examination of individual students.

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.