



# LTH

FACULTY OF  
ENGINEERING

*Course syllabus*

## VA-teknik Water and Wastewater Technology

**VVAF01, 5 credits, G2 (First Cycle)**

**Valid for:** 2023/24

**Faculty:** Faculty of Engineering, LTH

**Decided by:** PLED B/K

**Date of Decision:** 2023-04-18

### General Information

**Main field:** Technology.

**Compulsory for:** V2

**Language of instruction:** The course will be given in Swedish

### Aim

The student shall within the limits of the course get an overview of the urban water and wastewater system. This system consists of the potable water supply, distribution system, wastewater collection system, wastewater treatment and storm water management in the city.

### Learning outcomes

*Knowledge and understanding*

For a passing grade the student must

- \* be able to describe and explain how the urban water system works in general.
- \* be able to describe how the urban water system is an integrated part of the urban infrastructure.

*Competences and skills*

For a passing grade the student must

- \* be able to design a small water- and wastewater system based on given prerequisites and rules.
- \* be able to design simple systems for water and wastewater treatment and storm water management based on given prerequisites and rules.

### *Judgement and approach*

For a passing grade the student must

- \* understand the need of a common and clear problem description of different suggestions to solve a problem.
- \* understand the importance to take the interest of different workingfield into account when working with urban infrastructure problems. Emphasis is put to the importance of being able to present complicated technical data in a way that is easy to understand.
- \* be able to evaluate different solutions in an infrastructure project, judging both positive and negative aspects of the choices made.

## Contents

The theoretical knowledge to understand the basic structures and functions of water and wastewater systems.

Water resources, quality, treatment, storage and distribution of potable water in an urban system.

Storm water and wastewater infrastructures for management and treatment.

Quality aspects of wastewater and the effects on the recipient and legislation.

## Examination details

**Grading scale:** TH - (U,3,4,5) - (Fail, Three, Four, Five)

**Assessment:** Written examination, written assignment and study visit.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

### **Parts**

**Code:** 0109. **Name:** Water and Wastewater Technology.

**Credits:** 4. **Grading scale:** TH. **Assessment:** Written examination.

**Code:** 0209. **Name:** Assignment.

**Credits:** 1. **Grading scale:** UG. **Assessment:** Assignment and study visit.

## Admission

**The number of participants is limited to:** No

**The course overlaps following course/s:** VVB090

## Reading list

- Viveka Lidström: Vårt vatten, grundläggande lärobok i vatten- och avloppsteknik. Svenskt vatten, 2020, ISBN: 1654-5117.

## Contact and other information

**Course coordinator:** Universitetslektor Karin Jönsson,  
Karin.Jonsson@chemeng.lth.se

**Course homepage:** <https://www.ple.lth.se/en/>