



**LUNDS UNIVERSITET**  
Lunds Tekniska Högskola

*Course syllabus*

# **Arkitekturteknik 5: Hållbar teknik i byggd miljö**

## **Sustainable Technology in the Built Environment**

**AAHF01, 3 credits, G2 (First Cycle)**

**Valid for:** 2023/24

**Faculty:** Faculty of Engineering, LTH

**Decided by:** PLED A

**Date of Decision:** 2023-03-28

### **General Information**

**Main field:** Architecture.

**Compulsory for:** A3

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

### **Aim**

This course will support students' ability to critically examine contemporary building design from a sustainable societal perspective, at the same time as providing means and methods of action for the future.

### **Learning outcomes**

#### *Knowledge and understanding*

For a passing grade the student must

- demonstrate an understanding of how architecture is associated with the ambition for a sustainable society (from a technical point of view),
- be able to describe the current systems and solutions which are applied on the urban scale and within each building,
- be able to describe the availability of different kinds of energy in relation to the selected energy solution.

#### *Competences and skills*

For a passing grade the student must

- demonstrate an ability to visualize, graphically and in text, the possible choices of system solutions.
- demonstrate an ability to describe the chosen solutions from their technical aspects.

### *Judgement and approach*

For a passing grade the student must

- demonstrate analytical skills to critically review the practice and theory of prevailing views of how sustainability issues are discussed in society and building,
- demonstrate the ability to weigh the different input values in a specific situation to a sustainable solution.

## **Contents**

The course is complementary to the courses The Fundamentals of Urban Design and Sustainable Architectural Design. Lectures and seminars convey knowledge of the city's infrastructure and the building's technical installations and construction, all from a sustainability perspective. A final statement in the form of text, and schematic diagrams of the given problems are performed in groups. Parallel to the other assignments runs the study of the literature.

## **Examination details**

**Grading scale:** UG - (U,G) - (Fail, Pass)

**Assessment:** At least 80% attendance in lectures and classwork, at seminars, studytrips and during participants' presentation of their results. Attendance is verified by means of a quiz at the end of the course. If the grade is fail, the student is entitled to re-examination after completion.

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.

## **Admission**

**Admission requirements:**

- VBMA05 Building Materials
- VBMA10 Building Technology and Building Physics
- AAHA55 Architectural Design Process and Prototypes
- AAHA60 The Architect's Tools
- ABKA01 Energy and Building Services
- VBKA05 Architectural Design
- AAHA01 Architecture, Basic Course A1 or AAHA20 Architecture, Basic Course C1
- AAHA10 Architecture, Basic Course B1 or AAHA30 Architecture, Basic Course D1
- AAHA05 Architecture, Basic Course A2 or AAHA25 Architecture, Basic Course C2
- AAHF05 Architecture, Basic Course D2 or AAHF15 Architecture, Basic Course B2

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

## **Reading list**

- Course literature varies from year to year.

## **Contact and other information**

**Course coordinator:** Erik Johansson, [erik.johansson@hdm.lth.se](mailto:erik.johansson@hdm.lth.se)