



AF1401 Building Technology and Design 7.5 credits

Byggnadsteknik och design

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

Establishment

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Building Materials and Building Physics besides Structural Engineering Basic Course.

Language of instruction

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

Intended learning outcomes

After the course is completed the student should:

- Understand the fundamentals of the architectural design process.
- Be able to find technical solutions that fulfil the requirements concerning thermal insulation, moisture safety, durability etc that are integral to the architectural design and the structure.
- Be able to make a selection of building materials based on functional and environmental requirements.
- Be able to use economical databases to carry out economical calculations.

Course contents

Functional requirements of buildings. Planning. The architectural design process. Building technology, foundations, outer walls, windows etc., structure and design. Software applications for calculations and simulation. The choice of materials. Effects on interior and exterior environment. The design process, quality control, use of databases and economical calculations.

Course literature

- Handboken Bygg, husplanering. In Swedish.
- Byggnadsteknikens grunder Inst. för Bygghvetenskap, KTH, 2004. in Swedish.
- Burström, PG.: Byggnadsmaterial, Studentlitteratur. In Swedish.
- Burström, PG.: Byggnadsmaterial. Övningsbok, Studentlitteratur. In Swedish.
- Sektionsfakta, en elektronisk databas för kostnadskalkyler. In Swedish.

Examination

- ÖVN1 - Exercises, 3.0 credits, grading scale: P, F
- TEN1 - Examination, 4.5 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

Examination (TEN1; 4,5 cr)
Exercises (ÖVN1; 3 cr)

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.