



Faculty of Health, Science and Technology
Construction Engineering

Syllabus

Elementary Building Technology

Course Code:

BYGA96

Course Title:

Elementary Building Technology
Byggteknikens grunder

Credits:

7.5

Degree Level:

Undergraduate level

**Progressive
Specialisation:**

First cycle, has only upper-secondary level entry requirements (G1N)

Major Field of Study:

BYA (Civil Engineering)

Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2024-09-12, and is valid from the Spring semester 2025 at Karlstad University.

Prerequisites

Upper secondary level Mathematics 3b/3c/C and Civics 1b or 1a1 + 1a2

Learning Outcomes

The course is mandatory for students in the real estate management programme and the first course in building technology. The aim of the course is for students to acquire basic knowledge of construction materials, building technology, drawing techniques, and energy calculation.

Upon completion of the course, students should be able to:

- describe the properties and functions of building materials,
- interpret and use EPDs for climate declarations of constructions,
- describe the structure and function of foundations, frames, frame complements, and building envelopes,

- provide an overview of common building damages,
- provide an overview of fire and acoustic requirements for buildings,
- interpret technical construction drawings,
- provide an overview of the content in energy declarations,
- provide an overview of the scope and content of various inspections, such as transfer inspections and construction inspections, and
- compile and present technical information about a building in a clear and accessible manner.

Content

The course covers the following:

- building materials
- climate declaration
- structure and function of foundations, frames, frame complements, and building envelopes
- building damages
- fire and acoustic aspects of buildings
- reading construction drawings
- energy declaration
- inspections, such as transfer inspections and construction inspections

Instruction is in the form of lectures, project supervision, study visits, and city walks.

Reading List

See separate document.

Examination

Assessment is based on a written exam and oral and written group presentations of a project.

If students have a decision from Karlstad University entitling them to Targeted Study Support due to a documented disability, the examiner has the right to give such students an adapted examination or to examine them in a different manner.

Grades

One of the grades 5 (Pass with Distinction), 4 (Pass with Some Distinction), 3 (Pass), or U (Fail) is awarded in the examination of the course.

Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

Course Certificate

A course certificate will be provided upon request.

Additional information

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.

Group projects require students to be present beyond scheduled hours.