



Course syllabus

Faculty of Technology

Department of Building Technology

1BY008 Byggteknik 1, 7,5 högskolepoäng

1BY008 Building Technology 1, 7.5 credits

Main field of study

Civil Engineering

Subject Group

Building Technology

Level of classification

First Level

Progression

G1N

Date of Ratification

Approved 2009-12-15

Revised 2018-01-16 by Faculty of Technology. Review of examination, objectives and contents.

The course syllabus is valid from autumn semester 2018

Prerequisites

General entry requirements and Mathematics 3b / 3c or Mathematics C (Field-specific entry requirements 3/A3).

Objectives

After completing the course the student:

- have knowledge of building technology constructions
- knowledge of building materials
- will be able to make energy calculations for a house
- have the ability to perform detailed building technology drawings

Content

The course comprises the following elements:

- Building technology: The building's main parts foundations, frames, framecomplement, coverings, furnishings and equipment,
- Building physics: Heating, energy balance, U values, heat conduction. Moisture, moisture technology concepts, moisture transportation, moisture sources, critical

- moisture conditions, moisture measuring,
- Energy: Boverkets energy requirements, calculation of the building's energy balance, low-energy buildings,
- Material science: Concrete, wood, heat insulation and other building materials. Laboratory around the material,
- Drawing techniques: Plans, sections, details for housebuildings,

Type of Instruction

The teaching consists of lectures, laboratory work, exercises and study visits. The extent of the compulsory parts appears from the schedule.

Examination

The course is assessed with the grades U, 3, 4 or 5.

The course is examined through a written exam 5 credits with the grades U, 3, 4 or 5. The practical part is examined through presentations and project work through a written report. Practical exercises and project work together comprise 2.5 credits and is assessed with the grades U, 3, 4 or 5.

The grade obtained by weighing of the various parts of the examination where the written exam weighs heaviest.

Course Evaluation

During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed at the Faculty.

Other

Some elements of the course may entail costs defrayed by the course participant.

Required Reading and Additional Study Material

Required reading

Bodin, Hidemark m fl Arkitektens Handbok, Studentlitteratur, latest edition, about 552 pages.

Burström, Per Gunnar, Byggnadsmaterial, Studentlitteratur, 2007, 562 pages

Strandberg, Bengt, *Bygga hus-Illustrerad bygglära*, Byggegenskaps förslag, 2014, 291 pages.

Byggfysik – Räknetal, lösningsförslag och tabellverk, Inst för byggt teknik, LNU, 2016

Byggfysik- Värmekompodium, Inst för byggt teknik, LNU, 2016

Ritteknik - Goda exempel, Inst för byggt teknik, LNU, 2016

Recommended Literature

Hemgren & Wannfors, Husets ABC, 384 sidor

Hamrin, Byggnadsritning – ritsätt och regler, 72 sidor

Sandin, Kenneth, 2007, Praktisk Husbyggnadsteknik, Studentlitteratur, 100 sidor