AF1731 Building Technology 1, Constructional Engineering and Design, Cad 1 7.5 credits

Byggteknik 1, småhus, tekniskt arbete, Cad 1

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

Establishment

Course syllabus for AF1731 valid from Autumn 2019

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Students in year 1 of the Higher Education Diploma programme in Construction Management
Students in year 1 of the Bachelor of Science in Engineering programmes Constructional Engineering and

Language of instruction

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

Intended learning outcomes

The overall purpose of the course is to give students an introduction to constructional engineering and insight into what it means to work as an engineer. Students will become acquainted with the interpretation of drawings and CAD. Students will participate and actively contribute to running a project.

After completion of the course, students will:

- Be aware of basic construction techniques and designs for single family residences as well as have understanding of how these buildings are constructed from base to ceiling
- Be able to explain basic concepts in groundwork, surface layers, excavations and filling as well as have understanding of the importance of engineering work in connection with building construction
- Know the basics of how a construction project is managed from concept to completed project, including requirements from authorities, industry regulations and community restrictions
- Be able to draw and edit objects in CAD model environment
- Be able to explain details in different types of drawings in the construction process such as A- (Architect), K- (Construction's), M- (Soil) and installation drawings
- Be able to participate in project work around building construction actively and present in written report as well as orally.
- Critically process observations from study visits with connection to the intended learning outcomes.
- Have understanding of what sustainable building implies

Course contents

- Basic construction techniques and design of single family houses
- Basic groundwork, surface layers, excavations and filling
- Basic parts in how a construction project is run from concept to completion, including requirements from authorities, industry regulations and community restrictions
- Project methodology and implementation of a project
- Oral presentation techniques
- Study visit
- Drawings in the construction process
- Interface and drawing environment in CAD

Examination

- PROA - Project, 2.5 credits, grading scale: P, F
- ÖVN1 - Exercises, 2.5 credits, grading scale: P, F
- TENA - Written examination, 2.5 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.

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.