HS1734 Structural Design 7.5 credits

Projektering, konstruktion och design

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

Establishment

Course syllabus for HS1734 valid from Spring 2015

Grading scale

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

Education cycle

First cycle

Main field of study

The Built Environment, Technology

Specific prerequisites

Students in year 2 of the Higher Education Diploma programme in Construction Management

AF1717 Technical Work, Methods and Tools
HF1700 Mathematics
HS1721 Building Technology
HS1722 Statics and Strength of Materials
HS1733 Concrete Structures

Language of instruction

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

Intended learning outcomes

Upon completion of the course, students shall:

- Possess basic knowledge of planning and design of housing
- Have basic knowledge of accessibility issues in housing
- Have basic knowledge of carcassing and structural shell selection
- Be able to understand the importance of details to the whole, and understand the opportunities and limitations in materials
- Have basic knowledge of 2D/3D planning using CAD and BIM
- Be able to dimension and present objects
- Create construction drawings based on given and measured input data for a building
- Be able to dimension based on basic given construction physics requirements
- Display knowledge of the theory behind Building Information Modelling (BIM) from the initial idea to the programme, planning, production, procurement and management stage

Course contents

- Architecture in general
- Space analysis, housing planning
- Construction techniques, carcasses
- Management of drawings in projects with external reference, layers and layout in CAD
- Dimensioning based on given construction physics requirements
- Creation of building documents for residential buildings using CAD and BIM

Course literature

Reading materials will be announced at the start of the course.

Examination

- ÖVN1 - Exercises, 2.5 credits, grading scale: P, F
- PRO1 - Project, 5.0 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

Passing grade on project, (PRO1 5.0 credits), grading scale A-F
Passing grade on assignments, (ÖVN1 2.5 credits), grading scale P/F

Overall course grade is based on a grading scale of A-F.

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.