



## Course syllabus

Faculty of Technology

Department of Building Technology

2BY083 Detaljprojektering - inriktning byggkonstruktion, 7,5 högskolepoäng

2BY083 Building and Civil Engineering - Design Project, 7.5 credits

### **Main field of study**

Civil Engineering

### **Subject Group**

Building Technology

### **Level of classification**

First Level

### **Progression**

G1F

### **Date of Ratification**

Approved 2009-07-24

Revised 2016-11-02 by Faculty of Technology. Review of type of instruction, examination and literature.

The course syllabus is valid from spring semester 2017

### **Prerequisites**

Basic eligibility and completed the courses (or equivalent courses) Construction Management 1 7.5 credits, Computer Aided Drawing CAD 7.5 credits, Building Technology 1 7.5 credits, Project Management and Technical Communication 7.5 credits, Building Technology 2 7.5 credits, Housing, Building Technology and Town Planning 7.5 credits, Structural Mechanics 7.5 credits, Concrete Structural Engineering 7.5 credits, Foundation Structure 7.5 credits.

## Objectives

After completing the course the students individually and in groups will be able to use knowledge obtain in previous program courses supplemented with in-depth knowledge within the actual projects problem areas.

The building's design and engineering construction shall in principle be showed in documents. The required calculations for the construction shall be able to be done.

## Content

The course covers the design of a planned construction project, it shall as far as possible mimic the reality. This course includes detailed design in building construction and architecture for building projects. The system documents for the project shall only to be

adjusted according to detail project conditions.

- description of the background and purpose
- adjustment system documents with regard to detail project conditions
- architect's construction documents with dimensioned floor plans, detailed drawings and selected layout drawings
- engineering construction documents (choice of frames, column spacing, load conditions, dimensioning, foundations and heat balance calculation etc.)

## Type of Instruction

Instruction consists of lectures, projects with tutorials, seminars, data- and drawings exercise.

The extent of the compulsory elements shown in the schedule.

## Examination

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

The course is examined through a written exam of 3 credits with the grades U, 3,4 or 5. The project work at 4.5 credits is examined through oral presentations and written report assessed with the grades U, 3,4 or 5.

The grade obtained by weighing the various parts of the examination where the project work 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.

## Required Reading and Additional Study Material

### Required reading

Bodin, Hidemark m fl Arkitektens Handbok, Studentlitteratur, 2014 eller senare, 552 pages

Burström, Per Gunnar , Byggnadsmaterial Studentlitteratur 2007, 562 pages

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

Hansson P, Pärletun LG , Kom igång med AutoCAD , Studentlitteratur, latest edition.

S. Heyden, O. Dahlblom, A. Olsson, G. Sandberg, Introduktion till Strukturmekniken, Studentlitteratur, 2008. 240/307 pages.

Sandin, Kenneth, Praktisk byggnadsfysik, Studentlitteratur, senaste upplagan. 205 pages.

Engström, B. Beräkning av betongkonstruktioner, rapport 2007:13, rev. 2008, Chalmers tekniska högskola

Enkel sammanställning av laster enligt Eurokod för kursen 1BY052

Utdrag ur Engström B., Johansson M, Johansson P (2008), Bärande konstruktioner, Del 1 och Bärande konstruktioner del 2, Institutionen för Bygg och miljöteknik, Avdelningen för konstruktionsteknik, Chalmers Tekniska Högskola. Linnéuniversitetet 2016, 158 pages.

Johansson, Marie, Träbyggnadsteknik, Linnéuniversitetet, 2016, 135 pages.

Johansson, Marie, Utdrag ur Eurokod 0 och 1, Linnéuniversitetet, 2016, 30 pages.

## Reference literature

For example, newspaper articles about the current building type, reference documents for similar items, Construction Documents.