



Course syllabus

Faculty Board of Science and Engineering

School of Engineering

4BY064 Trä i byggsystem, 7,5 högskolepoäng

4BY064 Timber Based Building Systems, 7.5 credits

Main field of study

Civil Engineering

Subject Group

Building Technology

Level of classification

Second Level

Progression

A1N

Date of Ratification

Approved 2010-06-28

Revised 2012-11-28 by School of Engineering. Review of prerequisites.

The course syllabus is valid from autumn semester 2013

Prerequisites

General entry requirements and English B (Field-specific entry requirements 2/A2). At least 7,5 hp Structural Mechanics or Solid Mechanics and 15 hp Mathematics.

Objectives

After this course students should:

- have a understanding for the basis of structural engineering and load combinations
- have a understanding for the behaviour of structures in timber and engineered wood products
- have the ability to design advanced timber structures including, stabilisation, complex glulam beams, connections and vibrations
- be able to design and analyse advanced timber structures

Content

The course includes:

- the background to the design standards and load combinations
- basic understanding of wood as a structural material; grading, influence of

service class and load duration

- design of timber structures subjected to tension, compression or bending
- design of curved beams and beams with varying depth
- stabilisation of timber structures
- timber connections - understanding of the behaviour and design
- springiness and vibrations

Type of Instruction

The teaching consists of lectures, exercises, laboratory work, project work and study visits. Some elements are compulsory.

The extent of the compulsory elements is announced by the examiner at the start of the course

Examination

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

The assessment of student performances usually takes place during special examination periods and may be written and/or oral. The assessment may also be based on submitted reports of laboratory work and exercises.

Course Evaluation

When the course has finished, an evaluation is compiled. The results are reported to the students and then archived according to the rules of the school.

Required Reading and Additional Study Material

Required reading

Bergkvist, Per (red.) (2011). Design of timber structures. Stockholm: Swedish Forest Industries Federation

Johansson, Marie (2012) Exercises in timber structures, Linneaus University