

SYLLABUS

Structural Mechanics I 7.5 credits B0004B

Byggnadsmekanik I

Course syllabus admitted: Autumn 2008 Sp 1 - Present

DECISION

**The plan is established by the Department of Civil and
Environmental Engineering 2007-01-31 and is valid from H07.**

Structural Mechanics I 7.5 credits B0004B

Byggnadsmekanik I

First cycle, B0004B

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	G U 3 4 5	Konstruktionsteknik	Building Technology

Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language and Mathematics, physics and basic strength of materials.

Selection

The selection is based on 1-165 credits.

Examiner

Lars Bernspång

Course Aim

To attain basic ability to do calculations related to plane trusses and frames

You should be able to apply:

- Virtual work
- Calculation of section forces in indeterminate plane frames
- Deformations in plane trusses and frames

You should know:

- Principal axis of inertia and skew beam bending

You should understand:

- Influence lines

You should know about:

- Torsion

Contents

Contents:

Trusses and frames are studied with energy principles, force method and displacement method.

Assignment: A truss is constructed and calculated.

Computer exercises: Two different frames are analysed with a computer program.

Realization

There will be lectures, exercises and demonstrations. Computer exercises are compulsory.

Examination

Written exam with graded marks (U, 3, 4, 5)

Completed assignments and computer exercises

Overlap

The course B0004B is equal to B7004B

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Literature. Valid from Autumn 2008 Sp 1

Compendiums from LTU

Introduktion till strukturmekniken, Susanne Heyden, Ola Dahlblom, Anders Olsson och Göran Sandberg, Studentlitteratur

Course offered by

Department of Civil, Environmental and Natural Resources Engineering

Items/credits

Number	Type	Credits	Grade
0001	Written exam	6	G U 3 4 5
0002	Laboratory work	1.5	U G#

Last revised

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Syllabus established

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