



# HS1004 Structural Mechanics 2

## 7.5 credits

### Byggmekanik 2

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

If the course is discontinued, students may request to be examined during the following two academic years

### Establishment

Course syllabus for HS1004 valid from Spring 2011

### Grading scale

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

### Education cycle

First cycle

### Main field of study

Built Environment, Technology

### Specific prerequisites

### Language of instruction

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

## Intended learning outcomes

After completing the course students shall be able to calculate the shear stresses in beams, draw load, shear and moment diagrams for statically determinate frames and sloping beams, and analyse simple statically indeterminate beams. Students shall also be able to calculate characteristic loads and design loads in ultimate state for simple constructions.

## Course contents

- Shear stresses in beams
- Torsion of circular bars
- Statically determinate frames and sloping beams
- Statically indeterminate beams - flexibility method
- Qualitative analysis of beams and frames
- Loading conditions
- Characteristic values for selfweight, imposed load and snow load
- Calculation of the design load in the ultimate limit state

## Course literature

Own compendium

## Examination

- TEN2 - Examination, 2.5 credits, grading scale: P, F
- TEN3 - Examination, 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.

## 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.