



Faculty of Health, Science and Technology
Construction Engineering

Syllabus

Structural Mechanics - statically undetermined constructions

Course Code:	BYGB24
Course Title:	Structural Mechanics - statically undetermined constructions <i>Byggnadsmekanik - statiskt obestämda konstruktioner</i>
Credits:	2
Degree Level:	Undergraduate level
Progressive Specialisation:	First cycle, has less than 60 credits in first-cycle course/s as entry requirements (G1F)

Major Field of Study:

Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2016-09-06, and is valid from the Autumn semester 2016 at Karlstad University.

Prerequisites

Engineering Design: Timber, 7.5 ECTS cr

Learning Outcomes

Upon completion of the course, students should be able to:

- use the elementary case method, the displacement method and table formulas to calculate load on statically undetermined beams,
- draw moment and shear force diagrams for statically undetermined beams and state relevant values,
- use the elementary case method to calculate load on simple statically undetermined frames.

Content

The course comprises the following components:

- load calculations of statically undetermined beams and frames with the elementary case method, the displacement method and table formulas
- moment and shear force diagrams.

Reading List

See separate document.

Examination

Assessment is based on a written exam.

Grades

One of the grades 3 (Pass) or Fail (U) is awarded in the examination of the course. (Vice Chancellor's

decision Dnr C2015/795)

Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

Course Certificate

A course certificate will be provided upon request.

Additional information

The course is offered as a self-study course supported with study material available at the platform ItsLearning and tutorials.

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.