



SE2860 FEM Modelling 8.0 credits

Modellering i FEM

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

Establishment

Course syllabus for SE2860 valid from Autumn 2016

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

Basic undergraduate course in Solid mechanics or Structural mechanics and basic course on FEM theory and FEM usage.

Language of instruction

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

Intended learning outcomes

After following the course, the student can use a commercial FEM-programme to model and analyse a realistic structural problem.

Course contents

Some central modelling aspects of FEM analysis will be covered:

- geometrical and material aspects,
- boundary conditions,
- selection of element types,
- static and dynamic analyses and
- non-linear analyses.

A series of case studies will be presented. An extensive project task is included in the course requirement. It includes modelling and solving a realistic structural problem.

Examination

- ÖVN1 - Exercises, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- PRO1 - Project, 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.

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

Other requirements for final grade

PRO1 - Project assignment, 5 credits. Grades: A, B, C, D, E, FX, F

ÖVN1 - Exercises, 3 credits. Grades: A, B, C, D, E, FX, F

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.