



MF2102 Machine Design Project

Course 6.0 credits

Maskinkonstruktion projektkurs

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 MF2102 valid from Autumn 2018

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

MF2101 Machine Design, or the equivalent.

Language of instruction

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

Intended learning outcomes

On completion of the course the student should, based on a given design task, be able to:

- plan a design project for development of a mechanical product
- develop a detailed specification for the mechanical product
- independently and methodologically carry out a design process to generate a new product
- apply and deepen previous knowledge, as well as independently acquire new knowledge that is needed to implement the project by:
 - design and detail the mechanical product based on engineering considerations
 - develop load requirements for the mechanical product and its included components
 - apply different design principles of load bearing and load transferring structures in the mechanical product
 - choose engineering materials and standardised components for the mechanical product
 - produce dimensioned and toleranced manufacturing documentation for the mechanical product
- critically reflect on the methods chosen in the design process
- evaluate the final result and compare them with alternative solution proposals and existing solutions

Course contents

The course is based on a project where a mechanical system or product should be designed or redesigned. The design solution is delivered as a CAD model and described in a technical report. The design is verified using relevant calculations and if applicable with physical models.

Course literature

Will be announced no later than four weeks before the start of the course.

Examination

- PRO1 - Project, 6.0 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.

Other requirements for final grade

Course grade is the same as the grade of PRO1.

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.