



MF1049 Product Realization for Teachers in Technology 7.5 credits

Produktframtagning för tekniklärare

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

Establishment

Course syllabus for MF1049 valid from Autumn 2014

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Compulsory for year 2 of the Subject Teacher Education in Technology, Secondary Education

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:

- understand the function of and be able to dimension some common machine elements.
- be able to choose appropriate standard components and common engineering materials.
- be able to cooperate around technical problem-solving in an engineering way.
- be able to use 3D CAD and model parts and assemblies
- be able to account for the most common activities in the product development process and apply these from idea to concept
- be able to present results of implemented project assignments orally and in written form.

Course contents

The course is based on analysis and design of commonly used components in technical products.

In parallel with the dimensioning module, a project will be carried out that aim to exercise engineering problem-solving regarding design and product realization, engineering design and choice of technical solutions. The project also includes visualisation by means of sketches, computer models and physical models.

Disposition

The course discusses some common machine elements and design aspects through lectures and laboratory exercises. Furthermore, this is trained in a project assignment, where a new product is developed or an existing product is modified.

Course literature

Literature in machine elements.

Examination

- PRO1 - Project, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- TEN1 - Written Examination, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Sessions, 1.5 credits, grading scale: P, 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.

The examination takes place continuously with oral and written presentations of project and laboratory sessions and a written examination.

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.