



# MF1061 Introduction to Design and Product Realisation 9.0 credits

## Introduktion till design och produktframtagning

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

On 04/09/2021, the Dean of the ITM School has decided to establish this official course syllabus to apply from autumn term 2021 (registration number M-202-0529).

## Grading scale

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

## Education cycle

First cycle

## Main field of study

Technology

## Specific prerequisites

General entry requirements for studies at higher education institution/university and special admission requirements for studies at the engineering programme Design and product realisation at KTH Royal Institute of Technology.

# 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:

- have knowledge of the working methodology in a product realization process and the engineer's role.
- be familiar with the importance of industrial design in a product development process, and working methods for design, visualisation and creation of models.
- be able to use some engineering computer tools, especially CAD, to make 3D models for visual communication and manufacturing drawings.
- have experience of working in small groups and in larger project groups with formal project meetings and distribution of tasks, following a process.
- understand the structure of a technical report and have trained language and content aspects of a technical report.
- be able to plan and carry out oral presentations.
- have knowledge of the concept of sustainable development.

# Course contents

The course starts with a design part that consists of exercises in sketching, modelling and form theory. In parallel, a CAD tool is introduced.

A large part of the course consists of a project work. The project goes out on to design a new or improve an existing product. Aspects such as form, function and manufacturing should be considered. The product idea should then be illustrated with physical and virtual models. The project starts with a kick-off with exercises in project work.

The aim of the project work is to obtain a wider context for, and perspective on design and product realization.

In parallel with the project, the field of sustainable development is introduced, with the aim to understand and be able to reflect critically.

# Examination

- INL2 - Hand in Task, 1.5 credits, grading scale: A, B, C, D, E, FX, F
- INL3 - Hand in Task, 2.0 credits, grading scale: P, F
- INL4 - Hand in task, 1.5 credits, grading scale: P, F
- KON2 - Partial exam, 2.0 credits, grading scale: A, B, C, D, E, FX, F

- PRO2 - Project, 2.0 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.

## **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.