



MF2061 Industrial Design Engineering Advanced Course, Part 2 12.0 credits

Industriell design högre kurs, del 2

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

Establishment

Course syllabus for MF2061 valid from Autumn 2019

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

MF2112 Advanced Product Design, MF2032 Eco Design, MF2102 Machine Design Project Course, MF2104 Mechatronic in Product Design or similar

Language of instruction

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

Intended learning outcomes

The student will after the course:

- take practical and theoretical knowledge of the entire design process from design brief to evaluation of the finished product
- use methods of user-driven design and how users can participate in the design process
- understand and have experience from how technology, economics and industrial design is combined in a successful product realization project
- be able to understand the design process from an industrial perspective, focusing on materials, technologies and production
- be able understand the design process also from an end-user and consumer perspective
- have experience from cooperation in a complex design project
- applied skills in presentation and communication in actual projects

Course contents

The advanced course is divided into practical and theoretical elements that overlap. Emphasis is placed on project work carried out in groups of up to three (four) participants. The project has either industrial or related research-oriented ties. The project will be performed with different elements of design process tied together.

During the course different methods are used to study user's behaviour and their needs, ranging from surveys to focus groups and workshop methodology.

One of the courses consists of cooperation with other educational disciplines of economics and design. The aim of the operation is to give the students experience in group dynamics and the different roles that exist within the product.

The advanced course includes a workshop in various materials, technologies as well as in tribology and tactility.

The advanced course hold a seminar series where students in groups of four prepare, document and implement an all-day seminar for the students on the course.

Emphasis is placed on engineering-related skills such as design and technical skill.

Examination

- PRO1 - Project, 6.0 credits, grading scale: P, F
- PRO4 - 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.

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

The examiner decides, in consultation with KTH's coordinator for disabilities (Funka), about possible adapted examination for students with documented, permanent disabilities. The examiner may permit other examination format for re-examination of 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.