



# MF2060 Industrial Design Engineering Advanced Course, Part 1 12.0 credits

Industriell design högre kurs, del 1

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 MF2060 valid from Autumn 2011

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Mechanical Engineering

## Specific prerequisites

Accepted for track Industrial Design (IPDA).

CDEPR: HM1025, MF1038, MF1040, MF1015

CMAST: HM1025, MF1038, MF118X, MF1015

CFATE: HM1025, MF1038, MF117X, MF1015

TIPDM: Ergonomics

The following course are highly recommended, to study in parallel or prior:

MF2031, MF2032, MF2033, MF1025

## 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.

## Disposition

The advanced course is divided into four main parts, The Seminars, The TED course (Technology-Economy-Design), The Project Course and Theoretical part with lectures and workshop.

## Examination

- PRO1 - Project, 3.0 credits, grading scale: P, F
- PRO2 - Project, 6.0 credits, grading scale: P, F
- PRO3 - Project, 3.0 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.