



MF2070 Introduction to Engineering Design 3.0 credits

Introduktion till industriell produktutveckling

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

Establishment

Course syllabus for MF2070 valid from Autumn 2013

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

BSc in Mechanical Engineering or similar.

Language of instruction

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

Intended learning outcomes

The course gives an overview of scientific and industrial development trends within the areas of engineering design and industrial design. Scientific working methods, research methodologies and research and engineering ethics are treated both on a general level, and on the level of specific research domains. Focus is on how research may be used for the benefit of industry and society by promoting innovation. Scientific writing, reviewing and presentation to an international audience are taught.

This course is followed by MF2071 and, together with MF2071, fulfils the requirement of 7.5 credits in research methodology.

Course contents

The course gives an overview of contemporary scientific and industrial development trends within the areas of engineering design and industrial design. Scientific methods of working including both research ethics and research methodology are treated both on a general level and on the level of specific research directions. Scientific writing, reviewing and presentation are highlighted and trained. Making use of research for the benefit of industry and society, in particular innovation aspects and entrepreneurial activity are introduced.

The course also includes a kick-off activity with the purpose of introducing students to studies in engineering design, in particular the Engineering Design Master Program.

Course literature

One or more suitable course books will be recommended.

All course material (lectures, exercises, tutorials, manuals etc.) which are distributed during the course will be available on the course web (as far as copyrighting allows).

Examination

- PRO1 - project Work, 3.0 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.

Written report

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.