



MF2112 Advanced Product Design 12.0 credits

Avancerad produktdesign

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 MF2112 valid from Spring 2019

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

MF2038 Service Design or the equivalent.

Language of instruction

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

Intended learning outcomes

After passing the course, the students should be able to:

- use methods for user-centered design and have an insight in how the design process can be based on the users' needs.
- design a brand platform to support the design of products and services.
- create an appropriate balance between different aspects of design in a project.
- design a complex product based on user studies, brand platform and sustainable development.
- apply knowledge of presentation and communication techniques in the presentation of a project.
- apply current research in the field of industrial design.

Course contents

The course is mainly directed towards industrial design. The course content is formed around an individual design project where the major part of the background studies is carried out in groups. In the project, the different findings should then be balanced in the final design. The design project is about a product that is designed to work in a product-service system in a circular economy.

Through the course, different methods and tools for understanding users and their needs and for analysing the results are practised. For example, user studies are planned and carried out.

Another field that is highlighted is the importance of the brand, strategies around brand management and how it influences the design of products and services.

Furthermore, current research in the field of industrial design is discussed in seminars.

Course literature

"Research Methods for Product Design", Alex Milton & Paul Rogers

"The Brand Gap", Marty Neumeier

Research articles

Examination

- INL1 - Hand in exercises, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- PRO1 - Project, 4.0 credits, grading scale: A, B, C, D, E, FX, F
- PRO2 - Project, 3.0 credits, grading scale: A, B, C, D, E, FX, F

- SEM1 - Seminar, 1.5 credits, grading scale: P, F
- TEN1 - Written examination, 1.5 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.

The assessment is based on written examination, the student's active participation in group assignments and seminars, the quality of submitted assignments (both individual and in groups) and written assignments such as peer reviews.

The research-preparatory component constitutes 1.5 credits of the course content, and is assessed in seminars (SEM1).

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.