



# MF2039 Advanced Service Design 9.0 credits

## Avancerad tjänstedesign

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 2019-10-15, the Dean of the ITM school has decided to establish this official course syllabus to apply from autumn term 2020 (registration number M-2019-2229).

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Mechanical Engineering

## 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 student should be able to: Focus on process**

1. apply the service design process and the methods that are presented in the course based on an assignment from a technology-based client organisation.
2. independently interact in the project group and coordinate the joint work in all phases of the service design process
3. justify decisions that have been made during all phases in the design process, for example the choice of respondents, users' understanding and proposed technical solutions.

### **Focus on result**

4. based on assignment from the client organisation and understanding from user studies, design a service concept that satisfies real user needs in a creative way while being technically feasible.
5. explain how the development of trigger material and the final service concept are based on and are supported by new insights into the user's experiences and needs.
6. create a short movie/animation that visualises the service concept in an pedagogical and involved way.

### **Focus on sustainability**

7. explain how services can contribute to achieve a sustainable development in at least one of the three dimensions - ecological, economic and social sustainability.
8. apply at least one of the three sustainability dimensions in your project and justify how the service concept can contribute to a sustainable development.

### **Focus on reflection about theory and practice**

9. describe the service design process, underlying principles, methods, theories and perspectives that are presented in the course.

## **Course contents**

Central in the course is problem based learning in the form of a service design project that the students carry out in collaboration with an employer with connection to technical design. The work is carried out in groups that are offered continuous supervision. The supervision creates possibilities for feedback around the design process and continuously follow up on the learning. Lectures, exercises and literature studies give background and knowledge to the students during the work.

### **Proficiencies that are trained, and the subject content of the course include:**

- theory, case studies and background of the field,
- sustainability dimensions and how these can be applied in the development of service concepts
- service design process and methods such as interview methodology, analysis of empirical findings, customer journey, synthesis and production of trigger material,
- concept development of service offers that connect clearly to understanding of the experiences and needs of users as well as to technical feasibility,
- visualisation and communication of design process and result.

## **Specific prerequisites**

MF1061 Introduction to Design and Product Realisation (or MF1018 Industrial Design Prop), MF1062 Design and Product Realization and MF1040 Design and Product Realization Methodology, or the equivalent knowledge.

## Examination

- INL1 - Animation, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- INL2 - Individual assignment, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- PRO1 - Project work, 5.0 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.

The final mark is given on the scale A, B, C, D, E, FX, F and is weighted combination of the grades in respective examination parts and the higher education credits that these correspond to.

## Other requirements for final grade

To pass the course, 80% attendance at lectures and exercises and participation in the project work to an extent that corresponds to the size of the course is required.

## 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.