



# FLF3014 Bridging Science and Societal Needs through Design Thinking 4.5 credits

Integrering av vetenskapliga och samhällliga behov genom Design thinking

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

The head of ITM school determined on 18/09/2019 to establish this official course syllabus to apply from autumn term 2019 (registration number M-2019-1841).

## Grading scale

P, F

## Education cycle

Third cycle

## Specific prerequisites

Ongoing doctoral education

## Language of instruction

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

## Intended learning outcomes

On completion of the course, the student should be able to:

1. demonstrate specialised insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used. **(item 1)**
2. identify relevant issues in a problem complex and use tools to communicate her/his skills and interact with others in multidisciplinary contexts **(item 2)**
3. show understanding of which societal challenges the own PhD project addresses or can be related to and how the research can contribute to societal development. **(item 3)**
4. demonstrate the ability to identify own needs for additional knowledge **(item 3)**
5. demonstrate capacity to contribute to societal development both through research and education and in other qualified professional contexts **(item 3)**

## Course contents

The course considers how Design thinking can be used to induce change and innovation in the scientific environment and in the surrounding society.

The course contains the following parts:

**Item 1** - Introduction to Design thinking (0.5 credits): An introduction in Design thinking theory and process methodology including critical perspectives on Design thinking.

**Item 2** - Practical application of Design thinking as support for inducing change (0.5 credits): Experience-based learning in groups where the students work with a number of generic societal challenges through application of the Design thinking process and related tools.

**Item 3** - Design thinking and innovation in research (3.5 credits): Design thinking in relation to the student's PhD project. The student identifies how Design thinking can be used to raise the quality and the societal relevance in her/his research projects and explores how the research could be turned into real societal impact after completed PhD studies.

## Examination

- INL1 - Hand-in assignment, 4.5 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.

## Other requirements for final grade

Active participation in item 1 and 2.

Individual written examination in item 3.

## 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.