# MF2085 Innovation- and Product Development Processes 6.0 credits

## Innovations- och produktutvecklingsprocesser

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 MF2085 valid from Spring 2022

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Mechanical Engineering

## Specific prerequisites

Bachelor of Science Degree in Mechanical Engineering 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:

- describe how theory related to innovation and product development processes have been developed over time
- explain and compare what characterises different innovation and product development processes and how individuals and groups are influenced
- use systematic methods that are used in different phases of the innovation and product development process
- analyse advantages and disadvantages when it comes to use of different systematic methods in a number of critical situations in innovation and product development processes
- analyse and design innovation and product development processes
- evaluate innovation and product development processes in order to analyse the effects of different designs of innovation and product development processes
- analyse critical integration mechanisms in innovation and product development processes and their usability for different purposes

## Course contents

- different theories and frameworks for innovation and product development processes, such as NPD stage gate, agile development, design thinking, Lean start-up, circular economy
- systematic methods that are used in different phases of innovation and product development processes, e g user involvement, creativity methods, analysis of product and service value, launch and sales of innovation
- principles and tools for the analysis of innovation and product development processes
- Integration mechanisms in innovation and product development processes, e g roles and functions, group dynamics, visualisation and management by objectives
- Project work with a focus on evaluation and design of innovation and product development processes in an organisation

## Examination

- PROA - Project, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- SEMA - Seminars, 1.5 credits, grading scale: P, F
- TENA - Home exam, 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.

.

## 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.