



# MF2053 Innovative Product and Business Development 18.0 credits

Innovativ produkt- och affärsutveckling

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 MF2053 valid from Autumn 2014

## 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

Students shall:

- Have developed an ability to lead, plan and work in innovative development projects.
- In a structured way be able to address complex problems in a technical and business context.
- Be able to independently apply the tools, methodologies and analytical frameworks for product innovation and development work introduced during the Masters.
- Have developed a practical ability to understand and manage innovation-related challenges.
- Have the ability to make reasonable assessments of economic, technical and market constraints in innovation.
- Be able to write extensive business plans and reports.
- In a meritorious way communicate their innovative work and its results in oral and written presentations for different audiences.
- Be able to reflect on different ethical perspectives on technological innovation activities, including social, environmental and work environment aspects.

## Course contents

The advanced course Innovative Product- and Business Development is formed around a real innovation project, which is based on an idea from an existing company, researchers or students and carried out by a group of students. The project involves both technology and product development, as development of a business plan associated with this technology/product. The students work in groups of 3-4 students and the group's mission is also to jointly manage and organize the work. The course runs for one semester, period 3 and 4 in the fall.

## Disposition

A number of workshops will be arranged during which the themes and elements that are important in an innovation process are reviewed such as: business idea, strategy, business model, customer value, concept testing, IPR, organization, financing, product development and prototyping. Each theme is an important piece needed to support students to drive the innovation project forward. Students are expected to achieve a number of milestones, and communicate and assess their performance and justify their approach to other students and stakeholders in workshops.

The course concludes with a seminar where all students orally present their work and results to other students and stakeholders. The result is communicated in a prototype, designed based on what is appropriate for the project, and a written business plan.

## Specific prerequisites

Only open for students taking the Product Innovation Management track within the Integrated Product Design Master programme.

Exchange students can take the course if they have the right prerequisites - course MF2046 Product innovation and MF2051 R&D Strategy and Organisation or comparable courses.

## Course literature

A selected book on entrepreneurship and business development, as well as articles and extracts from books.

## Examination

- PRO1 - Project, 18.0 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.

80% of examination consists of the project work.

20% of examination consists of two reflection reports, one halfway through the project and one in the end of the project.

## 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.