



MF2078 Innovation, Product and Business Development

21.0 credits

Innovation, produkt- och affärsutveckling

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for MF2078 valid from Autumn 2015

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

Only for students who follow the track "Product innovation" in the "Integrated Product Design" Master's programme.

Exchange students can read the course if they have right prior knowledge i.e. MF2046 Product innovation and MF2051 Strategy and organisation or the equivalent courses.

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:

- lead, plan and work in innovative development projects
- tackle complex problems in a structured way in a technical and commercial context
- independently apply the tools, methods and analytical frameworks related to product innovation and development work that is introduced during the master programme
- understand and handle innovation related challenges
- make reasonable assessments of economical, technical and market-related limitations in innovation work
- write business plans and reports of more extensive nature
- communicate his/her innovation work and its results in oral and written presentation for various types of target groups
- analyse the innovation work of others and give constructive criticism
- reflect around different ethical perspectives on technical innovation work; including social, environmental and working environment aspects

Course contents

The course runs over two study periods and is built-up around an actual innovation project which is based on an idea from either an existing company, a researcher or students. The project includes technology and product development, as well as development of a business connected to this technology/product. The main deliverable of the project is a business plan, and the keyword for the course is to take new technology to market. The students work together in groups of 3-4 individuals and the assignment of the group includes to jointly lead and organise the work and interact with ideators and other interested parties. The students are responsible for the project and have regular supervision as support.

A number of workshops will be organised during the course, where themes and parts that are important in an innovation process are dealt with, such as: business concept, strategy, business model, customer value, concept testing, Intellectual Property Rights, organisation, funding, product development and prototyping. Each theme is an important key factor to support the students to drive the innovation project forward. The students are expected achieve a number of goals and communicate and assess their results and explain their procedure for other students and interested parties during seminars.

The course is completed with an occasion where all students orally present their work and final result. The final result is communicated in a prototype, designed from what is appropriate for the project and a written business plan.

Course literature

A selected book in entrepreneurship and business development and articles and extract from books.

Examination

- PRO1 - Project, 21.0 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.

If the course is discontinued, students may request to be examined during the following two academic years.

80% of the course will be examined through the project work

20% of the course be examined through two written reflection reports, halfway into the course and at the end of the course.

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.