MF2088 Innovation and Product Development 22.5 credits

Innovation och produktutveckling

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 MF2088 valid from Autumn 2017

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

A Bachelor's degree in Mechanical Engineering or the equivalent.
Furthermore the courses MF2084, MF2046, MF2085 or couses with corresponding content.

Admitted to TIPDM (study year 2) - track, IPDE.

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:

- Test product development and innovation processes and critically review the application and the effect of these on individual and organizational results.

- Apply systematic methods that are used in product development and innovation processes and critically review the application and the effect of these on individual and organizational results.

- Explore different systematic methods in typical situations and stages in product development and innovation processes and analyse and evaluate advantages and disadvantages with these on individual and organizational results.

- Describe processes in a systematic way and analyse and evaluate advantages and disadvantages of these models for individual and organizational results.

- Plan and carry out a project organisation and when necessary change this organisation to fit the phases in the product development project.

- Create and carry out a project plan.

- Handle and tackle technical problems that are vague and ambiguous.

- Develop different technical skills.

- Independently collect relevant assignments to solve technical and organizational problems.

- Apply research in innovation management and product development.

Course contents

In addition to the application of engineering skills, the course has a focus on user involvement, entrepreneurship, business administration and strategies, leadership and organisation, group dynamics, freedom and creativity.

Disposition

The students work together in teams and in the assignment of the group is included to lead jointly and organise the work to create solutions.

Course literature

Will be announced at the beginning of the course.

Examination

- INL1 - Hand in Exercise, 7.0 credits, grading scale: A, B, C, D, E, FX, F
- INL2 - Hand in Exercise, 7.0 credits, grading scale: A, B, C, D, E, FX, F
- PRO1 - Project, 8.5 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.

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.