



MF2084 Managing Research and Development 6.0 credits

Ledning av forskning och utveckling

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

Establishment

On 04/23/2020, the Dean of the ITM School has decided to establish this official course syllabus to apply from autumn term 2020 (registration number M-2020-0715).

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

Bachelor of Science or the equivalent in the area of mechanical engineering.

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 student should be able to:

- apply basic concepts, theories and analytical frameworks related to strategic management
- explain how sustainability aspects are handled in different strategic theories
- apply basic concepts, theories and analytical frameworks related to R&D strategy
- apply basic concepts, theories and analytical frameworks related to organisation of R&D
- use relevant methods to analyse and plan focus and extent of R&D activities
- analyse advantages and disadvantages with product platforms and modularisation, and factors that influence their application
- analyse R&D problems in an empirical context
- write a scientific report that treats a specific subject in management of R&D
- analyse and suggest solutions to concrete R&D questions by applying theories and frameworks
- analyse the interplay between R&D and different company and business strategies, and their consequences for how companies should organise their development activities
- evaluate different ways to lead and organise development activities and explain the circumstances under which different ways to organise these are appropriate

Course contents

The course deals with:

- Different theories and frameworks related to strategy
- Strategies at different levels in a company; e.g. research and development, innovation and business and company-wide strategies
- Organisational theory and organisational design
- Organisation and management of knowledge intensive activities, in particular R&D
- Product portfolios and product strategies
- Product families, platforms and modularisation
- Scenario analysis

Examination

- PRO1 - Project, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- TENA - Written exam, 4.0 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.

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.