



MF2051 R&D Strategy and Organization 6.0 credits

F&U Strategi och organiserings

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 MF2051 valid from Autumn 2012

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

The course is open for all students, but is primarily aimed for students taking the Master's track Product Innovation.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After having taken this course, students will have acquired the following knowledge and skills:

- Be familiar with how theory regarding strategy and organization has evolved over time.
- Be able to apply basic concepts, theories and analytical frameworks related to strategy and organization.
- Understand different strategies for commercialization and understand how they affect the diffusion of innovations.
- Be able to analyze industry structures, how they have changed over time and how innovation affects industries and competition.
- Be able to segment markets.
- Be familiar with different ways of organizing firms, and how these structures relate to corporate and business strategy.
- Be able to design product portfolios.
- Understand different ways of leading and organizing development activities and under what circumstances different ways of organizing are to be preferred.
- Understand the pros and cons of different ways of organizing R&D.
- Be familiar with different economic models for managing R&D.
- Understand distributed R&D, business and value-driven R&D, and lean R&D.
- Be familiar with pros and cons related to outsourcing and offshoring of R&D activities.
- To know about different integration mechanisms that can be used when organizing R&D.
- Be able to analyze the interplay between R&D and different corporate and business strategies and their implications for how firms should organize development activities.

Course contents

The course is comprised of a set of lectures and exercises. Moreover, students will perform a larger project totaling 2 hp, where they get the opportunity to apply the literature that has been introduced throughout the course. The project concerns an analysis of an R&D intensive company's strategy and organization related to development, and to come up with recommendations regarding what the company should do. The lectures and exercises will focus on the following domains:

- Different theories and frameworks related to strategy
- Strategy on different levels in a firm, e.g. corporate, business and R&D strategies.
- Product portfolios and product strategies.
- Organization theory and organization design.

- Organizing R&D.

Disposition

The course content will primarily be covered by a set of lectures where key concepts, theories and analytical frameworks are introduced and applied. In the beginning of the course, a visit to an R&D intensive company is done in order to give the students insight into how development activities can be lead and organized.

Course literature

Grant, R.M. (2010), Contemporary strategy analysis, Blackwell Publishing, Oxford, UK.

Examination

- PRO1 - Project, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- TEN1 - Examination, 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.

PRO1 - a project, 2,0 hp. written report and oral presentation, grading: A-F

TEN1 - a written examination, 4,0 hp, grading: A-F

Other requirements for final grade

To pass this course requires approved assignment (PRO1; 2,0 hp) and approved written examination (TEN1;4,0 hp).

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.