ME2069 Managing Research and Innovation 6.0 credits

Ledning av forskning och innovation

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

Establishment

Grading scale

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

Education cycle

Second cycle

Main field of study

Industrial Management

Specific prerequisites

- ME2501 Perspectives on industrial management and a minimum of 36 credits within the subject area of Industrial management.
- Registration on the master program TINEM.

Language of instruction

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

Intended learning outcomes

After having completed this course, the students should be able to:

- Describe and explain the implications of traditional organization models for innovation and R&D within an organizational and business context and propose innovation strategies for a firm given the firm's and industry's particular resources and characteristics.
- Apply in-depth research, conceptual models and organizational data to analyze and critically reflect on how particular organizations have chosen their innovations strategies.
- Provide proposals on how innovation strategies may work in a different context as well as provide proposals on how the strategies may be improved.
- Formulate research questions related to innovation, pursue a study based on these questions and write an academic essay based on these prerequisites.
- Critically discuss and analyze limitations to own work as well as implications from such limitations; and using this to propose ideas for future research.
- Describe different forms of intellectual property schemes and develop intellectual property strategies for firms and/or entrepreneurs based on the industry in which they are operating and the innovation strategy they are pursuing

Course contents

The main content of the course is structured according to the main topics:

Innovation management

- The importance of innovation
- Organization and operation of innovation
- Managing intellectual properties

Managing technology and knowledge

- Managing organizational knowledge
- Strategic alliances and networks
- Managing research and development and R&D project
- Open innovation and technology transfer

Product development

- Product development and the firms strategy and growth
- Service innovation

Examples of theories and models are:

- A market view on knowledge (technology transfer) and a cooperative view on knowledge (networks/collaborations/open innovation)
- Different types of product development processes (e.g. stage/gate-models compared with more agile models like e.g. scenario-based models)

- Models relating innovation to different markets and contexts

Disposition

The course content is based on the textbook and a number of academic articles (around 20 articles) related to managing research and innovation. The course could be described as theoretical in its focus, where discussions in seminars and ability to create strong argumentation in written reports are essential skills.

Course literature

Tidd and Bessant: Managing Innovation: Integrating Technological, Market and Organizational Change samt Vetenskapliga artiklar som kan anskaffas via KTH biblioteket.//

Tidd and Bessant: Managing Innovation: Integrating Technological, Market and Organizational Change and scientific articles that can be accessed via a library.

Examination

- PRO1 - Project, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- LIT1 - Assignment, 3.0 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.

The final grade is based on literature assignment, 50 %, and the project, 50 %.

Other requirements for final grade

Pass grade on all seminars, reports, written literature test and project. In addition, active participation in discussions and seminars is expected.

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.