

# **ME2069 MANAGING RESEARCH AND INNOVATION**

Course-PM 2025

Course Page: ME2069 HT25 Managing Research and Innovation (52107)

Note: This document might be updated.

Course Language: English

## Course-PM: ME2069 Managing Research and Innovation, 2025

Credits: 6 ECTS Grade scale: A-F Level: Advanced Language: English

#### **COURSE OBJECTIVE**

The course focuses on how organizations create innovation and new knowledge but also how they turn such processes into profitable business. The aim of the course is to prepare you to take on a decision-making role within technology- and product development and being well familiar with tools and methods used in related work and operations. The course content, thereby, covers problems and opportunities associated with different types of organizations' abilities to gain competitive advantages through innovative products (goods and services).

#### **Course structure**

The course consists of academic lectures, lectures by managers and seminars. These three parts make the foundation for understanding management of research and innovation from a theoretical as well as from a practical point of view. Theories and practical applications are discussed and compared in seminar discussions and written assignments. The students will also complete a project report based on one of the themes in *Managing research and innovation*.

### **Learning objectives**

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

- Analyze organizations and business environments with traditional organization models for innovation and research
- Explain, compare and critically reflect on the difference between traditional management of innovation and management of innovation in digital sectors
- Explain, compare and critically reflect on a market based view on knowledge and technology transfer, with an approach to knowledge based on cooperation in network
- Explain, compare and critically reflect on different types of product development models (e g stage/gate models compared with models for open innovation)
- Explain, compare and critically reflect on different types of processes of innovation (e g product, process, position and paradigm) as well as different types of innovation focuses (e g radical versus incremental, sustaining versus disruptive and system oriented versus product oriented)
- Explain different ways to handle intellectual property and rights as well as critically reflect on important implications for innovation connected to IPR (intellectual property rights)

# Course responsible / Examiner:

Niklas Arvidsson, Professor, Industrial Engineering and Management (INDEK)

## **OVERVIEW**

The course has three main components: lectures, literature seminars and innovation challenge projects. The first is composed of lectures focusing on theories and concepts, guest lectures, and one final lecture summarizing the course. The literature seminars are four in total and they serve to provide a deeper understanding of theoretical articles and a platform for discussion and reflection on course literature. Finally, the project reports constitute the third part of the course.

## **Formal requirements**

Get a passing grade at a literature test (KON1) and a passing grade on a project assignment (PRO1) (see below for further information). In addition, the students are expected to show active participation in all seminars and discussions. Attendance is <u>compulsory</u> at all four seminars. If you do not meet these requirements you will be given an extra assignment.

# The final grade

The final grade will be based on the combination of KON1 and PRO1, where KON1 is main part.

# **Course teachers**

Niklas Arvidsson [NA], Professor, Industrial Engineering and Management (INDEK) Anna-Maria Nyquist [AMN], Researcher, Industrial Engineering and Management (INDEK)

# October 27, 2025

#### **Course literature**

Lecture notes and selected articles (will be announced via Canvas and introduction). Articles are accessed via KTH library and/or Google Scholar. Optional but recommended reading: Managing innovation – Integrating Technological, Market and Organizational Change (5<sup>th</sup> or 6<sup>th</sup> ed.). Joe Tidd & John Bessant, Wiley.

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#### LITERATURE SEMINARS

A number of selected articles complement the textbook and together make the foundation for the seminar assignments and seminar discussions. Students will be divided into three groups – A, B and C – and each group will have four mandatory seminars (1, 2, 3 and 4).

A written individual assignment is to be handed in at seminar 1 and 2 (in total two individual assignments). The hand-ins for seminar 3 and 4 are group-based and should be the first and second draft of the project report. Regarding seminar 1, 2 and 3 you should answer the questions assigned to each seminar using the course literature (lecture notes and selected articles), as well as by using material from e.g. a guest lecture or a newspaper article (etc.) where you can see relevant links.

The hand-in to seminar 3 is a first draft to the project report. The task for seminar 4 is that you should hand in the second draft of your project report (PRO1) and then present it at seminar 4.

The seminar assignments must be handed in via CANVAS <u>before</u> each seminar. These dates are listed below for each seminar.

### Grading

The grades of the report will be based on the following:

To receive an **A**, the student must: Critically apply the course literature and other relevant literature to meet the purpose and objectives of the report. This involves having a clear purpose and objective, clearly motivated choices of relevant theories, an analysis that leads to discussions and conclusions at a higher level as well as clear and articulated communication of the report.

To receive a **C**, the student must: Critically apply the course literature to meet the purpose and objectives of the report. This involves having a purpose and objective, motivated choices of theories, analysis and conclusions at a high level and clear communication of the report.

To receive an **E**, the student must: Apply the course literature to meet the objectives of the report. This involves having an objective, a choice of theories, conclusions as well as satisfactory communication of the report.

# **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.
- Check: https://www.kth.se/en/biblioteket/skriva-referera/skriv-referenser-1.856564