



ME2034 Management of New Technology and Industrial Creativity 6.0 credits

Management of New Technology and Industrial Creativity

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 ME2034 valid from Autumn 2007

Grading scale

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

Education cycle

Second cycle

Main field of study

Industrial Management

Specific prerequisites

At least 6hp on B-level courses in industrial economics or neighboring disciplines. That means that either ME1301/4D1124 or ME1005/4D1028 must be finished (preferably both). Students following other programs (e.g. Erasmus students) may apply for exemption.

Language of instruction

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

Intended learning outcomes

The aim of the course is to:

- * deepen the knowledge on the mechanisms behind industrial and technical change/transformation with a focus on the management aspects of these processes.
- * provide the students with knowledge on the research frontier in the area of management of innovation/technology
- * widen the innovation concept towards industrial creativity
- * provide the knowledge base for action in (management of) environments characterized by rapid industrial and technical change.

Course contents

Assuming that the students have basic knowledge in the economics of industrial and technical change this course focuses on the management aspects of those processes. Concepts like dominant design, various classifications of innovations (like architectural, modular or radical innovations) are introduced as are concepts related to learning, acquisition and the appropriability of technology. The innovation management concept is widened to include creativity and to include non manufacturing (service) sectors/activities. The role of venture capital and intellectual property rights in relation to the innovation management process is also analyzed.

The course is based on modern theory of management of innovation related to the new theory of the (resource based) firm and its dynamic capabilities. In addition the course is based on theories of knowledge formation and learning in firms and technical systems.

The teaching consists of lectures and seminars. One seminar may be in the form of a study visit.

Course literature

Tidd, Bessant & Pavitt, latest ed., Managing Innovation

- * Utterback, 1996, Mastering the Dynamics of Innovation
- * Smith & Smith, latest ed. Entrepreneurial Finance (two chapters)
- * Sundbo, 2005, Contemporary Management of Innovation (one chapter)
- * distributed material

Examination

- SEM1 - Seminars, 1.5 credits, grading scale: P, F
- TEN1 - Examination, 4.5 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.

Other requirements for final grade

Active participation in seminars and approved delivery of seminar/working papers (SEM1; 1,5hp). Approved on written final examination (may sometimes be in the form of an home examination) (TEN1;4,5hp).

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.