



ME2312 Advanced Studies in Industrial Economics and Management 12.0 credits

Avancerade studier inom industriell ekonomi och organisation

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 ME2312 valid from Spring 2015

Grading scale

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

Education cycle

Second cycle

Main field of study

Industrial Management

Specific prerequisites

For students admitted to the Master's programme in Industrial Engineering and Management, TIEMM

Passed the courses ME1305, ME1306, ME1307, ME1308, ME1310, ME1311, ME1313

Language of instruction

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

Intended learning outcomes

On completion of the course, the students should:

- show deep knowledge and understanding within the field of Industrial economics and organisation, particularly considerably deepened knowledge within certain parts of the field (within the chosen trace)
- show deepened understanding of current research and development within the area of the chosen trace
- be able to identify, analyse, evaluate and implement methods and models of control of mainly technology-based activities that are relevant for the trace
- show deep knowledge of the relations between Technology-Economy-Society
- show knowledge of established methods, models and theories within the management area, to initiate, plan, develop business, follow up and lead various types of industrial and technology-based activities
- show knowledge of management and development of activities, based on interests of different parties and different perspectives, and demonstrate an understanding of possible conflict areas in relation to this.
- show knowledge of scientific tools to analyse, process and evaluate facts, and awareness of how knowledge is developed within natural sciences, technology and social studies
- show ability to critically, independently and creatively identify and formulate issues and to plan and with adequate methods carry out qualified assignments within given time frames and thereby contribute to the knowledge development and to evaluate this work
- show ability to critically and systematically integrate knowledge, to analyse, assess and handle complex phenomena, issues and situations, even with restricted information
- show ability to compile/synthesise scientifically compiled knowledge relevant for a formulated issue
- show ability to analyse scientific articles and summarise and present scientific literature, both orally and in writing
- show ability to make assessments within the main field of study, considering relevant scientific and social aspects
- on a scientific basis show ability to identify and discuss ethical aspects, gender equality and aspects of diversity for industrial and technology-based activities
- on a scientific basis show ability to identify and discuss aspects of ecological and social sustainability in industrial and technology-based activities
- show ability to orally and in writing, both in national and international contexts, clearly account for and discuss their own conclusions and their underlying knowledge and arguments, in dialogue with different groups

Course contents

The field of Industrial economics and organisation deals with combining theoretical and practical knowledge about management of innovation, production and marketing, in established and emerging industries. The natural starting point for both education and research is thereby the organisation (the company/the section/the project) and its activities. Characteristic for teaching in industrial economics is thus reasoning about technical and economical skills required to solve problems from an industrial perspective. Thereby, the integration of technology, economics and leadership is emphasised, as well as the ability to communicate and cooperate in groups of different skills. After graduating as a Master of Engineering in Industrial Engineering and Management your tasks will most probably be directed towards technology-based business development within both established and emerging industries. Thus, the development and organisation of efficient industrial activities, profitable technology-based businesses and the creation of opportunities for innovation, development and growth, are central. Therefore you must have the ability to combine deep technical knowledge with advanced knowledge of industrial economics, to be able to solve complex problems, based on several different perspectives.

The general aim of this course is to give advanced theoretical and applied knowledge and understanding of different parts of the topic Industrial economics and organisation. This implies that each student should get deepened knowledge of the entire subject area while they gain considerably deepened knowledge within certain parts of the subject area. To achieve this, each student should at the beginning of the course choose one of a number of given tracks, that focuses on a specific area of studies. This course consequently intends to give the students research-based specialist knowledge (a minor) in a particular subject area in Industrial economics.

Course literature

Främst vetenskapliga forskningsartiklar, vilka exakt meddelas vid kursstart. // Scientific articles; will be announced at the beginning of the course.

Examination

- INL1 - Assignments, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- INL2 - Assignments, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- SEM1 - Seminars, 2.0 credits, grading scale: P, F
- SEM2 - Seminars, 2.0 credits, grading scale: P, F
- TEN1 - Exam, 2.0 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.

The final grade is given when the students have passed all written assignments and the written examination and have actively participated in discussions and seminars. Exact criteria for final grade are given at the beginning of the course.

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.