ME1305 Introduction to Industrial Engineering and Management 7.5 credits

Introduktion till industriell ekonomi

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 ME1305 valid from Autumn 2015

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Only for students accepted to CINEK1

Language of instruction

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

Intended learning outcomes

After passing this course the student should be able to:

- Give an overview of the subject Industrial engineering and management and its development
- Explain how management, organizing, strategic planning and control works in an industrial company.
- Explain and apply basic terminology within industrial engineering and management
- Use and interpret calculation techniques as basis for decision-making in different situations in an industrial company
- Understand problems and difficulties of change management in an industrial company
- Display knowledge about the most common definitions of sustainability as well as knowledge on what the sustainability area contains and how it usually is structured
- Discuss basic aspects of sustainability
- Give account of and discuss typical roles and work assignments for an engineer in the field of Industrial Engineering and Management.
- Give account of and discuss important actors, organizational structures, development and history in some important industries
- Discuss and reflect on important topics within Industrial engineering and management in writing and orally
- Search for and evaluate information
- Understand basic aspects of group dynamics and demonstrate an ability to participate in a project group and execute group work in an efficient way
- Reflect and discuss about her/his role as a MSc student and to take responsibility for her/his own learning

Course contents

This course is the first of a series of courses within the area of Industrial engineering and management for the students enrolled in the MSc programme in Engineering of Industrial Engineering and Management. The course gives an overview of and perspective on Industrial engineering and management, engineering work and typical industries in which engineers from this area work. It also provides an understanding of the content, structure, and learning activities within the MSc program as well as an introduction to the area of Sustainable engineering and development.

Course literature

Exakt kurslitteratur meddelas vid kursstart, men minst boken Industriell Ekonomi – metoder och verktyg, Engwall m.fl. (2014), Studentlitteratur samt under kursen eventuellt utdelat skriftligt material (t.ex. artiklar)

Examination

- PRO2 - Project, 3.0 credits, grading scale: P, F
- PRO3 - Project, 2.5 credits, grading scale: A, B, C, D, E, FX, F
- SEM1 - Seminars, 2.0 credits, grading scale: P, 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.

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.