



LUNDS UNIVERSITET
Lunds Tekniska Högskola

Course syllabus

Industriell ekonomi, allmän kurs Managerial Economics, Basic Course

MIOA15, 7,5 credits, G1 (First Cycle)

Valid for: 2023/24

Faculty: Faculty of Engineering, LTH

Decided by: PLED I

Date of Decision: 2023-04-14

General Information

Main field: Technology.

Compulsory for: B3, K3, KLMT3

Elective for: BI4, BME4, RH4

Language of instruction: The course will be given in Swedish

Aim

The aim of the course is to give a general economic overview and basic knowledge within engineer ethics. The students should, from an economic perspective, arrive at an understanding of the interplay of the various part systems in the enterprise. The course is intended to give a basic ability to understand and utilize economic, business and ethical concepts. Basic models used in this context are also included in the course. Relying on this basic knowledge, the students must be able to form judgements taking into account the whole of the enterprise. Special stress is laid on the basic knowledge of economics, which will be necessary in the professional life of a Master of Science Engineer.

Learning outcomes

Knowledge and understanding

For a passing grade the student must

- be able to explain and understand the basic concepts of business administration.
- be able to describe basic concepts and models within the following areas: business plans and strategy, as well as organization and marketing.
- be able to understand and describe models and key concepts in production and investment calculations.
- be able to describe and have an understanding of basic external reporting.

- be able to formulate in detail estimates of capital requirements in manufacturing companies.
- be able to have an insight into possible alternative methods of financing.

Competences and skills

For a passing grade the student must

- be able to use and synthesize basic business administration models and concepts in the areas of product calculation and investment decision-making.
- be able to apply running overall external reporting and balancing of the books and, with the help of a key value, evaluate the annual accounts of an enterprise.
- be able to use detailed estimates of capital requirements in manufacturing enterprises.
- Be able to identify and analyse ethical problems and dilemmas within professional and organisational contexts

Judgement and approach

For a passing grade the student must

- show insight within technological possibilities and limitations, the contribution of technology to society and about humans' responsibilities regarding social, financial, ethical and environmental aspects.

Contents

The course focuses on basic concepts and models to understand and manage financial, organizational and managerial issues in technology-based and industrial operations as an engineer.

The course consists of four modules.

Module 1: Industrial economics and value creation concerns the areas of technology development as a competitive factor, technology-based business models, strategy and marketing, production and product development as well as organization and HRM.

Module 2: Product Costing and Investment Assessment begins with the basic concepts of cost and revenue analysis, followed by profit planning models that describe how these basic economic concepts are affected by volume. Product costing deals with basic cost calculations and contribution calculations. The module ends with investment assessment, here the four statistical models are touched upon in detail.

Module 3: Financial accounting and financing is of central importance for gathering data for various calculations and models. How the financial information is stored in a company is conveyed through the areas of bookkeeping and accounting. Understanding the company's annual report and being able to carry out an accounting analysis and calculation of the company's capital needs completes the courses. The learning objective of this module is to understand the basic principles of bookkeeping, accounting and capital requirements calculation.

Module 4: Ethics has a clear connection to technology and technology development, which is why the module begins with an overview of various ethical theories which are related to the engineering profession's specific ethical dilemma regarding technology

application and development. (engineering ethics)

Examination details

Grading scale: TH - (U,3,4,5) - (Fail, Three, Four, Five)

Assessment: The final grade 3 for the course Industrial Economics AK is achieved when the course's four mandatory parts are approved: practical case assignments 1,2 laboratory and ethicassignment. If a higher grade is subsequently desired, a written examination (examination) is required..

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Parts

Code: 0118. **Name:** Managerial Economics, Basic Course.

Credits: 6. **Grading scale:** TH. **Assessment:** 30 p of 60 p **Contents:** Passed written examination

Code: 0218. **Name:** Case.

Credits: 0. **Grading scale:** UG. **Assessment:** Prepared assignment and participation in a case discussion.

Code: 0318. **Name:** Ethic.

Credits: 1,5. **Grading scale:** UG. **Assessment:** Prepared assignment and participation in a case discussion.

Contents: Case based examination

Admission

The number of participants is limited to: No

The course overlaps following course/s: MIO012, MIO080, MIOA01, MIOA12

Reading list

- Engwall et al: Modern Industriell ekonomi. Studentlitteratur.
- Engwall et al: Övningar till Modern Industriell ekonomi. Studentlitteratur.
- S O Hansson: Teknik och etik (kompendium). KTH.

Contact and other information

Director of studies: Ingela Elofsson, Ingela.Elofsson@iml.lth.se

Course coordinator: Carole Gustavsson, carole.gustavsson@iml.lth.se

Course homepage: <http://www.pm.lth.se>

Further information: This course may not be part of the Master degree together with the courses MIOA12, MIO012, or MIOA01.