MG1201 Introduction to Engineering work in Industrial Technology 15.0 credits

Introduktion till industriell teknik och ingenjörsarbete

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

The official course syllabus is valid from the fall semester 2024 in accordance with the decision by the Director of First and Second Cycle Education on ITM School: M-2024-0501. Date of decision: 2024-03-25

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

General entry requirements.

Language of instruction

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

Intended learning outcomes

After passing the course, the student should be able to

1. Describe basic industrial systems, manufacturing methods, energy supply and use of materials

2. Discuss the subject area of industrial engineering and the engineering role and account for, at a basic level, the concepts of ecologically, socially and economically sustainable development

3. Give an account of the components, functions and concepts of a production system,

4. Explain how quality assurance and lean production are applied to ensure set quality goals in a real industrial production system

5. Identify, describe, visualise and analyse a value stream in an industrial environment

6. Choose appropriate forms for communication with different target groups in industrial production

7. Interpret mathematical language and solve basic mathematical problems

Course contents

The role of the engineer in an industrial production system from a broad sustainable perspective.

Introduction to lean production with examples from for instance ”Scaniahuset”

Fundamentals of quality management in a production system

What does a Bachelor of Science in Engineering in industrial technology do – introduction to the different profiles of the programme

Introduction to communication techniques

Introductory mathematics for engineers

Examination

- INLA - Hand in tasks, 1.0 credits, grading scale: P, F
- INLB - Hand in tasks, 2.0 credits, grading scale: A, B, C, D, E, FX, F

- KONA - Partial exam, 0.5 credits, grading scale: P, F
- KONB - Partial exam, 3.0 credits, grading scale: P, F
- LEX1 - Continous assessment, 1.5 credits, grading scale: P, F
- SEMA - Seminar, 4.0 credits, grading scale: P, F
- TEN1 - Home exam, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- TEN2 - Written exam, - credits, grading scale: A, B, C, D, E, FX, F
- ÖVN1 - Exercise, 1.0 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.