MG1212 Industrial Production Systems 6.0 credits

Industriella produktionssystem

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

The official course syllabus is valid from the spring semester 2026 in accordance with the decision from the Faculty board of the ITM school: M-2024-0018. Date of decision: 2024-10-14.

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

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 shall be able to:

1. apply different methods and tools for simulation and modelling of systems and processes

2. define, account for and use central sustainability concepts and identify specific sustainability aspects for modern manufacturing industry from economic, ecological and social perspectives

3. define and account for system theory, system structure and system dynamics, including their central concepts and models

4. explain how different management systems, economic and legal instruments, standards, laws and regulations contribute to better environment, safety, gender equality, work environment and Corporate Social Responsibility

Course contents

Sustainability in industry

Systems theory, system structure and system dynamics

Simulation of systems and processes

Management systems, standards and laws

Examination

- SEM1 - Seminars, 1.5 credits, grading scale: P, F
- ÖVN1 - Exercises, 1.5 credits, grading scale: P, F
- KON1 - Partial Exam, 3.0 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.

If the course is discontinued, students may request to be examined during the following two academic years.

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.