



# MG1214 Applied Engineering II

## 9.0 credits

Tillämpat ingenjörarbete II

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

### Establishment

The official course syllabus is valid from the spring semester 2026, according to the decision by the Faculty Board: X-2024-0018. Date of decision: 2024-11-19.

### Grading scale

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

### Education cycle

First cycle

### Main field of study

Technology

### Specific prerequisites

MG1206 Applied engineering

### 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. Identify, formulate, manage and develop solutions to technical issues from a systems perspective
2. design and manage products, processes and systems while taking into account the backgrounds and needs of individuals and the targets for economically, socially and ecologically sustainable development set by the community
3. Exemplify and discuss how scopes influence decision-making, based partly on existing regulations and standards relevant to production, and partly on all three perspectives of sustainable development
4. Orally and in writing account for and discuss information, problems and solutions in dialogue with a client
5. Describe and explain the basic concepts, methods and tools of structured decision-making
6. Apply these concepts, rules and methods by developing a decision document with relevant criteria and recommended decision

## Course contents

- Industrial improvement and development work from a systems perspective
- Complexity of systems and issues and how they are visualised in decision-making
- Decision-making models for structured decision-making based on sustainable development requirements
- Regulations and policy documents relevant to industrial production systems
- Applied work on leading and driving teams working in improvement projects

## Examination

- INL1 - Hand-in assignment, 2.0 credits, grading scale: P, F
- INL2 - Hand-in assignment, 2.0 credits, grading scale: P, F
- INL3 - Hand-in assignment, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- KON1 - Partial exam, 1.0 credits, grading scale: P, F
- SEM1 - Final presentation, 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.

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.