MF1001 Mechanical Engineering, introductory course 9.0 credits

Maskinteknik, introduktionskurs

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 autumn semester HT2024 in accordance with a decision from the Faculty board of the ITM school: M-2024-0665. Date of decision: 2024-04-15.

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

General entry requirements for studies at university college and the specific entry requirements for mechanical engineering studies at KTH.

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.Define basic concepts in mechanical engineering.

2.Carry out rough estimations in mechanical engineering.

3.Independently and in a structured way create CAD models.

4.Plan and organise a smaller product development project and reflect on group dynamics and roles in a project group.

5.Write and compile a short technical report and plan and carry out an oral presentation with technical contents.

6. Discuss and reflect on gender equality, equal treatment and diversity in a perspective relevant for students and professionals.

7.Discuss sustainable development in the subject area mechanical engineering from an introductory perspective.

Course contents

The course is an introduction to the subject of mechanical engineering and to the Mechanical Engineering education programme at KTH.

The course gives a foundation and tools to carry out the education programme in a good way, and contains topic-specific intended learning outcomes, trains complementary skills and conveys knowledge and abilities related to study techniques and the programme.

Examination

- INL2 - Assignments, 1.5 credits, grading scale: P, F
- LAB2 - Laboratory work, 1.5 credits, grading scale: A, B, C, D, E, FX, F
- PRO2 - Project work, 3.0 credits, grading scale: P, F
- TEN2 - Written 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.

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Other requirements for final grade

For final grade, attendance at compulsory components is required.

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.