MG2122 Advanced CAD 6.0 credits

Avancerad CAD

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 2023 in accordance with the decision by the Head of school: M-2022-1508. Date of decision: 14/10/2022

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Additional regulations

Replaces the course MG2022 from autumn semester 2023. Only one of the courses can be taken.

Specific prerequisites

Knowledge equivalent to the intended learning outcomes for the course MG1028 ”Introductory 3D CAD”, or the equivalent course component "Introductory 3D CAD" in one of the courses MF1001 ”Mechanical Engineering, introductory course”, MF1061 ”Introduction to Design and Product Realisation”, or MG2128 ”CAD and Other IT tools in Industrial Processes, Extended Course”.

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:

- create CAD models of good quality of a structured way by utilising the full functionality of a modern CAD system. This includes:
    - components with complex shapes
    - sheet metal products
    - complex assemblies
- interpret complex 2D drawings and use them as a basis to create 3D models in CAD
- analyse and discuss the development of one´s own CAD expertise during the course

Course contents

The course covers the following items:

- Advanced solid modelling operations
- Modelling of details with freeform surfaces
- Modelling of sheet metal products
- Modelling of complex assemblies
- Varied and unconventional working methods in CAD

Examination

- INL1 - Homework assignment, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory exercises, 3.0 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.