ML1202 Product Realisation 9.0 credits

Produktframtagning

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

Establishment

Course syllabus for ML1202 valid from Autumn 2011

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Knowledge in project methods, equivalent to ML1102, and in engineering materials and production, equivalent to ML1200.

Language of instruction

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

Intended learning outcomes

The general aim of the course is in part to give the student a basic introduction to the use of computer tools for design and product realisation and in part to give the student an understanding of the product realisation process. The student's skills in project work processes will be trained and developed in the course.

On completion of the course, the student shall be able to:

- Use a 3D CAD system to model and modify simple digital solid models, mainly prismatic and rotation symmetric geometries
- Based on solid models, create and modify digital assemblies
- Create drawings based on solid models and assemblies
- Read and interpret simple two-dimensional drawings
- Apply and modify project work methods in a product realisation project according to engineering working methods with project planning (time plans, possible budgets, etc.)
- Identify the needs of knowledge for the assigned project in the course
- Based on a problem or an existing product, suggest materials and manufacturing processes and, in doing so, consider the economic and environmental aspects
- Suggest improvements to existing products, concerning, for example, choice of materials and manufacturing processes.

Course contents

In project form, analyse the product realisation process for a hypothetical or existing product. Design, construction, production, economics and environmental aspects are taken into consideration. The focus of the project should be directed towards the specialisation of the education.

- The product realisation process
- Solid modelling in 3D CAD programs
- 3D CAD assembly
- Drawing generation
- Drawing techniques

Course literature

Bestäms senast 1 månad före kursstart.

Examination

- CAD1 - CAD Exercises, 5.0 credits, grading scale: P, F
- PRO1 - Project According to Specialisation, 4.0 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.

Other requirements for final grade

Approved project and approved CAD assignments.

Criteria for final grade are based on examination and is announced at the start of the course.

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.