ML1205 Production Driven Product Design 7.5 credits

Produktionsanpassad produktutveckling

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

Establishment

Course syllabus for ML1205 valid from Spring 2018

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Completed courses with passing grades: ML1200 and ML1212

Language of instruction

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

Intended learning outcomes

After completion of the course, students with a passing grade shall be able to:

- Develop and present design solutions that take into account given manufacturing conditions
- Explain the considerations taken in the design process, regarding environmental, economical and social sustainability
- Consider and account for life-cycle aspects during the design of a product

Course contents

The following topics will be treated during the course:

- Component and product design executed with regard to the manufacturing process
- Product assembly consideration on the design of a product
- Models and simulations of products and components made by sheet metal
- Effects of different additive manufacturing principles on the design of a product and/or components
- CAD software for the planning and production of documents and technical documentation suitable for computer aided manufacturing
- Sustainability of products with regard to environment, economy and society.

Disposition

The course assumes that students plan their studies, take active participation in course activities and work independently with the course material and assignments. Lectures, seminars etc. shall encourage the students in their knowledge acquisition and skills development.

Course literature

- Materiallära, Willy Leijon, ISBN: 9789147100057
- Karlebo, Tillverkningsteknologi, Jarfors m fl, ISBN: 9789144070391
- Utdelat material

Examination

- ÖVNA - Exercises, 5.0 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 2.5 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

Requirements for final grade: Passing grades in LAB1 and ÖVNA. The final grade is based on the grade from ÖVNA.

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.