



ML1206 Machine Components

10.5 credits

Maskinkomponenter

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

Course syllabus for ML1206 valid from Autumn 2018

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Completed courses: ML1110 and ML1101 or the equivalent.

Language of instruction

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

Intended learning outcomes

On completion of the course, student with a Pass grade should be able to:

- identify and describe the aim and function commonly used machine components
- choose suitable machine components considering their function
- used catalogs and standards to dimension machine components, regarding strength and lifespan
- analyse and simulate selected machine components from a system perspective
- make assumptions and approximations in dimensioning of machine components
- systematically structure, solve, present and discuss technical problems
- give and take constructive criticism on the implementation and results of a project

Course contents

- Commonly used machine components: Springs, bandages, brakes, layers, connections, switches, axles and rotors
- Decomposition and modelling of function
- Systematic problem-solving and presentation of solutions

Disposition

The implementation of the course:

- The students are expected to work actively and independently with the course material
- Lectures and exercises are offered as support for the students' knowledge acquisition and development of skills
- A project work is carried out in groups during the course

Course literature

- Maskinelement av Karl-Olof Olsson ISBN: 9789147114832

Examination

- INL1 - Assignment, 2.5 credits, grading scale: A, B, C, D, E, FX, F
- PRO1 - Project work, 4.0 credits, grading scale: P, F
- TEN1 - Written examination, 4.0 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.

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.