# ML1102 Perspective on Mechanical Engineering 9.0 credits

**Maskinteknik, perspektivkurs**

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

## Establishment

Course syllabus for ML1102 valid from Autumn 2011

## Grading scale

P, F

## Education cycle

First cycle

## Main field of study

Technology

## Specific prerequisites

General admission and Mathematics D, Chemistry A and Fhysics B.

## 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, the student shall be able to:

- participate in a project group and contribute actively to the results of the project
- apply project-oriented working methods on an assigned project
- write necessary documents for carrying out a given project, such as: problem formulation, aims, demarcations and solution methods
- write documents that are necessary during the project, such as: invitation - agenda, protocol
- based on an assignment given in the course, make a realistic plan and follow it through
- identify the knowledge needs for the assigned project and seek information in printed and electronic sources
- describe the role of group dynamics in a project group
- present the work in a technical report
- prepare and carry out an oral presentation for a group
- carry out simple image processing, for example improvements, cropping and putting together images
- assemble images in environments with, for example, shadows
- create and modify own geometries by means of vector-based curves
- create presentation material consisting of text and images for publication electronically and in print
- describe the function of the most common construction elements
- at a general level, describe the product development and production process and describe common concepts

## Course contents

An assigned project related to the specialisation of the programme:

- Planning, structuring and work distribution. Requirements description, project plan and time plan. Project meetings, protocol, follow up and project report. Group dynamics. Information retrieval. Humans as information processors. Presenting ideas and proposals. Documenting work, methods and results. Report writing. Oral presentation technique.

Visualisation:

- Import, export, improvement and manipulation of images
- Assembling and improving images in settings
- Vector-based curves
- Combine texts, images and curves for presentation material

Mechanical engineering

- The product development and production process

- The most common construction elements

## Course literature

To be announced not later than 1 month before the course starts.

## Examination

- PRO1 - Project, 3.5 credits, grading scale: P, F
- ÖVN1 - Exercises, 2.5 credits, grading scale: P, F
- RED1 - Report, 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.

If the course is discontinued, students may request to be examined during the following two academic years.

PRO1, Project
ÖVN1, Ecercises
RED1, Report, Mechanical Engineering

## Other requirements for final grade

Approved project, approved exercises, approved presentations.

## 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.