



## Course syllabus

Faculty of Technology

Department of Mechanical Engineering

1MT322 3D CAD - Maskin, 7,5 högskolepoäng

3D CAD - Mechanical Engineering, 7.5 credits

### **Main field of study**

Mechanical Engineering

### **Subject Group**

Mechanical Engineering

### **Level of classification**

First Level

### **Progression**

G1F

### **Date of Ratification**

Approved by Faculty of Technology 2015-05-13

The course syllabus is valid from spring semester 2016

### **Prerequisites**

Basic eligibility and Engineering Tools, 7,5 credits or Machine Design 1, 7,5 credits or equivalent.

## Objectives

After completing the course the student is expected to:

- create solid models and surface models.
- create assemblies
- create drawings from 3D-models and assemblies
- create presentations in 3D-CAD tools.

## Content

The course includes the following moments:

- Detail modelling in 3D
- Assembly modelling in 3D
- Detail- and assembly drawings from 3D models
- Import/Export models
- Surface modelling, an introduction
- Standard details, an introduction
- Modules for sheet metal modelling, an introduction
- e-Drawings
- Visualization
- Animation
- FEM-calculation

## Type of Instruction

The teaching consists of lectures and exercises. Some elements are compulsory. The extent of compulsory elements is announced at the start of the course.

## Examination

The course is assessed with the grades A, B, C, D, E, Fx or F. Students are assessed both continuously during the course and through a comprehensive final computer based exam.

The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student's performance is assessed as fail (i.e. received the grade F).

## Course Evaluation

During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed at the Faculty.

## Credit Overlap

The course cannot be included in a degree along with the following course/courses of which the content fully, or partly, corresponds to the content of this course: 1MT022

## Other

The course is offered in English if there are international participants.

Grade criteria for the A–F scale are communicated to the student through a special document. The student is to be informed about the grade criteria for the course by the start of the course at the latest.

## Required Reading and Additional Study Material

### **Required reading**

Solid Works Essentials, Solid Works Corporation 532 p.