



Course syllabus

Faculty of Technology
Department of Mechanical Engineering

2MT027 Maskinkonstruktion II, 7,5 högskolepoäng
Machine Design II, 7.5 credits

Main field of study

Mechanical Engineering

Subject Group

Mechanical Engineering

Level of classification

First Level

Progression

G2F

Date of Ratification

Approved by Faculty of Technology 2014-10-03
The course syllabus is valid from autumn semester 2015

Prerequisites

Basic Mathematics 1, Vector Geometry, Calculus 1, Physics-Mechanics, Machine Technology - basic course, Advanced CAD in 3D, Engineering tools, Machine Design I, Solid Mechanics or equivalent.

Objectives

The purpose of this course is to give the students:

- application of mechanical design process
- understanding and knowledge of how to dimension and design some particular machine elements and parts
- practice in using standards and company catalogues
- comprehensive (overall) view of machine design work
- training in design team work

Content

This design project consists of two parts:

- Dimensioning and selecting the standard machine parts/elements from the company catalogues
- Training to use (Swedish) standard in machine design work

Type of Instruction

Teaching consists of lectures, tutorials and laboratory. Compulsory attendance of at least 80% of scheduled time.

Examination

The course is assessed with the grades A, B, C, D, E, Fx or F.

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).

The examination will be based on the "machine design" report and homework.

Course Evaluation

A course evaluation will be carried out and compiled after the course is completed. The compilation will be presented to the current board as well as to the students and filed.

Credit Overlap

This course cannot be part of a degree in combination with another course in which the content fully or partly correspond to the content of this course: 100% with the course 2MT001 Machine Design M3. 2MT026 Machine Design II, 7,5 hec.

Other

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.

Some elements of the course may entail costs defrayed by the course participant.

Required Reading and Additional Study Material

Required Reading

Khoshaba, S. Compendiums about machine elements. Växjö university

Khoshaba, S. Standards and equations (handbook). Växjö university

SKF General Catalogue

Reference Litterature

Juvinall, R. C. and Marshek, K. M. Fundamentals of Machine Component Design, fourth edition (2006). John Wiley & Sons.

Filiz, I. H. Solved Problems: Machine Elements, Volume 1, 2007). Laser Ofset, Turkey.