Linnæus University

Course syllabus

Faculty Board of Science and Engineering
School of Engineering

2MT016 Maskinkonstruktion M2, 7,5 högskolepoäng
Machine Design M2, 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 Organisational Committee 2009-07-24

The course syllabus is valid from spring semester 2010

Prerequisites
Engineering Mathematics 22,5 ECTS, Physics (Mechanics) 7,5 ECTS, Mechanical Engineering Basics, 7,5 ECTS, Machine Design M1, 7,5 ECTS, Advanced CAD in 3D, 7,5 ECTS and Strength of Materials, 7,5 ECTS.

Expected learning outcomes
After completing the course the students are expected to have acquired
• basic knowledge of impact, surface and fatigue loading
• an understanding and knowledge of the most common machine elements
• basic knowledge of machine design

Content
The course comprises the following elements:
• introduction into machine design
• the choice and dimensioning of some fundamental machine elements
• the design and dimensioning with regard to force flow, fatigue properties and the risk of machine damage
• the design of constructions with regard to impact loading

Type of Instruction
The teaching consists of lectures, laboratory work and exercises. Some elements are compulsory. Information on the

compulsory elements will be given at the start of the course.

Examination

The course is assessed with the grades U,3,4 or 5.
The assessment of student performances usually takes place
during special examination periods and may take the form of project work, laboratory work, submitted assignments and
written exams. The examination may

Course Evaluation

When the course has finished, an evaluation is compiled. The results are reported to the students and then archived according to the rules of the school.

Required Reading and Additional Study Material

Required reading

Juvinall, R. och Marshek M. Fundamentals of Machine Component Design 3rd Edition, John Wiley & Sons, INC
250
Standard sheets and company catalogues
Students' own material and handouts 50