



Course syllabus

Faculty Board of Science and Engineering
School of Engineering

1MT002 Tillverkningsteknik, 7,5 högskolepoäng
Manufacturing Techniques, 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 the Board of the School of Engineering 2013-01-28
Revised 2009-07-24. Review of Literature.

The course syllabus is valid from spring semester 2013

Prerequisites
General entry requirements and Mathematics 3c, Physics 2 or Mathematics D, Physics B (Field-specific entry requirements 8/A8). Machine technology, basic course, 7,5 hp or similar.

Objectives

After completing the course the student shall be able to:

- explain the product manufacturing by plastic processing, plastic workability of materials, and process impacts on product properties
- explain the product manufacturing by machining, by casting, and other available engineering methods
- describe the principles of machines and tools
- perform, analyze and interpret engineering measurements
- conduct theoretical and practical manufacturing based on numerical control of manufacturing machine.

Content

The course includes the following elements:

- forming of solid substances, rolling, tensioning, forging and pressing
- forming and cutting of plates
- methods of cutt machining
- grinding and polishing methods
- non-mechanical processing methods, machines and tools
- industrial measuring systems like gauge blocks, sine rulers etc.
- numerically controlled machines, their systems principles, programming, and their area of applications.

Type of Instruction

The course consists of lectures, laboratories, and exercises. Some parts of the course requires compulsory attendance. Information about the compulsory parts will be given at the beginning of the course.

Examination

The course is assessed with the grades U, 3, 4 or 5.

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

Hågeryd, L. m. fl

Modern Produktionsteknik del I

Liber 2002, ISBN 978-91-47-05091-8

Material tillhandahållet av avdelningen

Reference Literature

Eriksson Nils-Olof, mfl. *Verkstadshandboken*

Liber AB, Malmö, ISBN 978-91-47-01402-6

Jarfors E. W. mfl, *Tillverkningsteknologi*, Studentlitteratur, Lund, ISBN 978-91-44-01581-1, 400 sidor