



Course syllabus

Faculty of Technology

Department of Mechanical Engineering

1MT034 Tillverkningssteknik för Industriell ekonomi, 7,5 högskolepoäng

1MT034 Manufacturing Techniques for Industrial 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 2018-01-15

The course syllabus is valid from spring semester 2018

Prerequisites

Introduction to industrial operations, 7,5 hp or equivalent.

Objectives

After completing the course the student be able to:

- describe the product manufacturing by plastic processing, plastic workability of materials, and process impacts on product properties
- describe the product manufacturing by machining, by casting, and other available engineering methods
- describe the principles of machines and tools
- account for analyze and interpret engineering measurements
- explain 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.

Examination

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

Assessment of student performance takes place during special exam periods and is written. Before the final grade can be completed, laboratory work must be approved and studyvisits completed.

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: 1MT002 Manufacturing Techniques

Required Reading and Additional Study Material

Required reading

Hågeryd, Lennart, Stefan Björklund, Matz Lenner, *Modern Produktionsteknik del I*, Liber 2002, latest edition, about 400 pages.

Material provided by the department

Reference Literature

Eriksson Nils-Olof, mfl. *Verkstadshandboken*, Liber AB, Malmö, Latest edition

Jarfors, Anders, E. W. mfl, *Tillverkningsteknologi*, Studentlitteratur, Lund, Latest edition, 400 pages