MG1026 Manufacturing Technology 6.0 credits

Tillverkningsteknik

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

On 11/04/2019, the Dean of the ITM school has decided to establish this official course syllabus to apply from autumn term 2019 (registration number M-2019-0868).

Grading scale

A, B, C, D, E, FX, F

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

MF1001 Maskinteknik introduktion, MJ1103 Introduction to Mechanical Engineering or MF1046/MF1061 Design and Product Realization, Introduction,

or the equivalent

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After passing the course, the student will be able to:

- define terms, explain phenomena and use correct terminology within different areas of manufacturing
- describe the function and use of common machines, equipment and systems
- explain priciples and state prerequisites and results for different manufacturing methods
- perform manufacturing calculations
- use process planning to prepare for manufacturing of simple components in a mechanical workshop
- use basic metrology to verify the function and quality of a manufactured product
- handle measurement devices and equipment for machining, sheet metal forming, welding and casting following instructions

Course contents

In the course you will study the most common manufacturing processes and systems used in industry, to get an insight into the complete production process

Numerically controlled machine tools are important components of a modern manufacturing company. You will use these machines in activities throughout the design, programming, rigging, test run and manufacturing of components.

Other areas covered in the course are engineering drawings as a means of communication, common polymer materials and basic metrology techniques used to verify function and quality, as well as the characteristics of surfaces and surface treatment.

Examination

- LAB1 - Workshop Practice and Homework Assignments, 3.0 credits, grading scale: P, F
- TEN1 - Written Examination, 3.0 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH’s coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Ethical approach

- All members of a group are responsible for the group's work.

- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.