



# HM1016 Manufacturing Process, Intermediate Course 1 7.5 credits

Produktion, fortsättningskurs 1

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

## Establishment

Course syllabus for HM1016 valid from Spring 2023

## Grading scale

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

## Education cycle

First cycle

## Main field of study

Mechanical Engineering, Technology

## Specific prerequisites

## 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 should be able to:

- choose measuring equipment and carry out measurements of produced details
- assess the machine ability of machine tools
- apply statistical process control in production
- adapt details for automatic and manual assembly
- apply modularisation of products for simplifying assembly of variants
- account for disadvantages and advantages of complete machining
- demonstrate the ability to reflect on the interplay between production technology, society and man
- visualise how a workshop functions

# Course contents

- Engineering metrology and measurement uncertainty
- Tolerances, dimensioning and the dimensioning effect of tolerances
- Statistical process control
- Assembly technology
- Complete machining
- Industrial robot technique
- Automatic production and assembly
- Modular assembly
- Introduction to workshop engineering

# Examination

- ÖVN1 - Exercises, 3.0 credits, grading scale: P, F
- TEN1 - Written examination, 4.5 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.

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

# Other requirements for final grade

Approved exercises (Å–VN1; 3 cr) Passed written examination (TEN1; 4.5 cr) Final grade is decided by the TEN1 grade.

## 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.