



MG2009 Advanced Manufacturing Technology 6.0 credits

Avancerad tillverkningssteknik

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

Course syllabus for MG2009 valid from Autumn 2012

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

MG1001, MG1006, MG1026 or MG2104

Language of instruction

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

Intended learning outcomes

On successful completion of this course you will be able to:

- Select and present appropriate machining (metal cutting) and forming processes, including unconventional methods
- Measure and analyze the dynamic characteristics of the manufacturing equipment, i.e. machine tools and machining systems
- Interpret tolerances in engineering drawings and using this understanding plan and carry out measurements of given engineering components
- Provide suggestions for economic and sustainable manufacturing processes based on specific conditions

Course contents

Metal cutting and metal forming technology
Machine Dynamics
Machine and process capability
Unconventional manufacturing processes
Machining Economics and sustainability
Advanced measuring technology

Course literature

Meddelas vid kursstart

Examination

- LAB1 - Workshop Laboratory Exercises, 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.

LAB1 Laboration, 3hp.

TEN1 Written exam, 3hp.

INL1 Assignment, 3hp.

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.