MG2013 Advanced Welding Technology, Modulus 1 6.0 credits

Svetsteknologi, högre kurs, modul 1

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 MG2013 valid from Autumn 2023

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

Finished basic course in Welding engineering (MG1010, MG1011, MG1012)

120 cr in Engineering

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:

- thoroughly describe welding of structural parts and constructions
- explain fundamental physical background of welding arcs
- describe advantages and disadvantages of welding and cutting machines in different situations
- describe advantages and disadvantages of automated systems for flexible welding and cutting
- thoroughly explain control and quality checks of primary parameters during and after finished welding
- optimise process parameters - selection of process, additives, weld parameters, considering quality and cost
- formulate work instructions and directives for welding and cutting processes

Course contents

Welding Processes, mechanization and automation

Welding Economics

Work Environment with welding

Metrology

Examination

- DEL1 - Attendance, - credits, grading scale: P, F
- HEM1 - Home assignments, 1.0 credits, grading scale: P, F
- LABA - Laboratory work, 2.0 credits, grading scale: P, F
- TEN1 - Written exam, 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.