# MG2015 Advanced Welding Technology, Modulus 3 6.0 credits

**Svetsteknologi, högre kurs, modul 3**

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

## Establishment

Course syllabus for MG2015 valid from Autumn 2007

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Mechanical Engineering

## Specific prerequisites

4C1035 Strength of Materials and Solid Mechanics, basic course, 6 credits and 4G1332 Materials processing I, 4 credits and 4G1632 Materials processing II, 4 credits.

## Language of instruction

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

## Intended learning outcomes

To give

- deep knowledge of strength of welded details and welded structures
- deep knowledge of strength
- ability to conduct analysis of the strength of a welded structure
- ability to accomplish a design work including strength calculations of welded constructions
- ability to use FEM programs as an aid for analysis of welds as to strength
- ability to plan flexible welding system with and without a robot
- ability to accomplish an optimized choice of material, consumables, welding process including optimization of the total weld quality and costing.

## Course contents

## Examination

- ÖVN1 - Exercise, 3.0 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.

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

## Other requirements for final grade

Written examination (TEN1; 3 credits), exercises (ÖVN1; 3 credits).

## 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.