



# ML1611 Automation Technology 7.5 credits

Automatiseringsteknik

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

## Establishment

Course syllabus for ML1611 valid from Spring 2019

## Grading scale

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

## Education cycle

First cycle

## Main field of study

Electrical Engineering, Technology

## Specific prerequisites

Specific entry requirements: The courses ML1602, ML1603 and ML1607, or the equivalent

## Language of instruction

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

## Intended learning outcomes

On completion of the course, the student should be able to:

- account for general principles, methods and equipment for control and automation
- choose suitable components for the current application such as actuators, sensors and control systems
- design, program and deploy simple automated systems
- describe in a structured way how an automation problem can be formulated
- account for the function of control systems for manufacturing equipment
- account for the function of industrial robots and how they are used, including development of robot programs
- describe how individual components are coordinated in automated systems where processes, material handling, supervision, assembly and integrated quality control are included
- account for function and behaviour of industrial systems with a large degree of digital communication between different components
- account for the transformation in the industry towards digitisation and greater degree of automation
- account for environmental, human and economic preconditions for the design and use of the systems

## Course contents

- structure
- control
- programming
- deployment
- use of automated facilities

## Course literature

Meddelas tio veckor före kursstart

## Examination

- INLA - Assignment, 1.0 credits, grading scale: A, B, C, D, E, FX, F
- INLB - Assignment, 1.0 credits, grading scale: A, B, C, D, E, FX, F
- TENA - Written examination, 3.5 credits, grading scale: A, B, C, D, E, FX, F
- LABB - Laboratory Work, 1.0 credits, grading scale: P, F
- LABA - Laboratory Work, 1.0 credits, grading scale: P, 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.

## **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.