MF1023 Basic Electrical Engineering, Part 2 3.0 credits

Elektroteknik, del 2

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

Establishment

The official course syllabus is valid from spring semester 2027 as decided by the Director of First and Second Cycle Education. Decision date: 2026-10-22

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

SF1624 Algebra and Geometry
SD1120 Noise and Vibration Control

Intended learning outcomes

Upon successful completion of the course, the student should be able to:

1. Design basic circuits to adapt signals between mechatronic systems and their environment

2. Design simple mechatronic systems

Course contents

- Basic use of operational amplifiers in amplifiers and filters
- Basic use of a microcontroller in a mechatronic system
- Design of a simple mechatronic system

Examination

- LAB2 - Laboratory work, 1.0 credits, grading scale: P, F
- TEN2 - Written examination, 2.0 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.

Transitional regulations

The discontinued modules TEN1 and INL2 may be examined over two academic years

The examiner may authorise an alternative form of assessment when 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.