EI2515 Project in Electromagnetic Theory 7.5 credits

Projekt i elektromagnetisk fältteori

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

Establishment

The official course syllabus is valid from the autumn semester 2026 as decided by the Faculty Board decision HS-2025-1918. Date of decision: 2025-10-07

Grading scale

P, F

Education cycle

Second cycle

Main field of study

Electrical Engineering

Specific prerequisites

Knowledge of electromagnetic field theory, 9 credits, equivalent to completed course EI1320 or both courses EI1220 and EI1222.

Intended learning outcomes

After passing the course, the student should be able to

- formulate a realistic goal for a time-limited task

- carry out a project in electromagnetic field theory
- follow up and document their work

with the aim of being able to perform one or more typical tasks within the field of electromagnetic field theory, including antenna theory and microwave technology.

Course contents

A project work, which may include, among other things

- design through analysis and/or numerical simulations
- design of a measurement setup
- programming of measurement equipment and analysis of measurement data
- literature review and summary of a specific research area
- building a demonstrator or equivalent
- publish and present a paper at a scientific conference or in a journal.

Examination

- PRO1 - Individual Project Task, 7.5 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.

Other requirements for final grade

Written timetable, at least a written status report and a written final report.

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.