



# EF2221 The Sustainable Electrophysics Engineer 1.5 credits

Den hållbara ingenjören i elektrofysik

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

## Establishment

The official course syllabus is valid from the autumn semester 2022 in accordance with the decision from the head of school: J-2022-0564. Decision date: 22/03/2022

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Electrical Engineering

## Specific prerequisites

Completed Degree of Bachelor (180 credits) or the equivalent academic qualifications. Documented skill in English equivalent to English B.

## 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 shall be able to

- discuss central questions linked to the importance of engineers in society
- discuss and analyse the role of technology in society, especially in electromagnetism and space / plasma physics, and its role to reach economically, socially and ecologically sustainable development
- discuss and analyse scientific, social and ethical aspects of research and development
- discuss and analyse human responsibility for how the technology is used including the connection to equal opportunities, equality and diversity as well as environment and working environment
- discuss and analyse challenges of working in an international environment such as cultural differences and questions regarding equality and inclusion
- discuss the above-mentioned subjects at a high level,
- give arguments based on scientific results
- meet deadlines
- write short, clear arguing texts based on own analysis as well as given material.

## Course contents

The course extends over a year, i.e., four periods. Each period includes different subjects. Main themes for the course are: the role of engineers and the technology in society, social and ethical aspects, the responsibility of people for how the technology is used, the international labour market, culture and communication.

## Examination

- UPP1 - Assignment, 1.5 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

Participation in all seminars, submitted and passed assignments. The grading is based on the student's active participation in the discussions and on the quality of the submitted reports.

## 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.