



# EJ211X Degree Project in Power Electronics, Second Cycle 30.0 credits

Examensarbete inom effektelektronik, avancerad nivå

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

## Establishment

Course syllabus for EJ211X valid from Spring 2009

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Electrical Engineering

## Specific prerequisites

Program requirements, and completion of EJ2300. Depending on the project, it can also be required to have completed some other elective courses.

## Language of instruction

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

## Intended learning outcomes

The aim of the course is to develop the student's ability to independently carry out and report a work effort within the area of Power Electronics.

Upon completion of this course, the student shall be able to:

- apply relevant knowledge and skills, within the area, to a given problem
- within given constraints, even with limited information, independently analyze and discuss complex inquiries/problems and handle larger problems on the advanced level within the area
- reflect on, evaluate, and critically assess one's own and others' scientific results
- document and present one's work with strict requirements on structure, format, and language usage
- identify one's need for further knowledge and continuously develop one's own knowledge.

## Course contents

The degree project shall consider a relevant problem within the area of Power Electronics. The focus of the work should be on investigation (theoretical and/or practical) and analysis. The extent of the work should be that it requires at least five qualified work months. The work effort includes the development of a detailed project plan, to seek and study literature that is directly relevant for the thesis work and to conduct the proposed investigation and analysis. The results are presented in a written report and orally at one of the seminars for master theses provided by the department. If the work is done at a company, it can also be required to present the work orally there as well. During the thesis work period, an opposition should be conducted on another student's thesis work.

## Disposition

The course language is English.

## Course literature

The course literature is selected in cooperation with the supervisor(s).

## Examination

- XUPP - Examination Question, 30.0 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.

The examination is based on the three criteria - process, contents, and presentation - defined by KTH, and presented in the course description. A student that has not finished the thesis work within eight months, can be failed on the course. The decision is taken in consultation between the examiner and the supervisor(s).

## Other requirements for final grade

In order to pass the degree project, all three criteria must be met with a grade of sufficient or better. The final grade is a synthesis of the three evaluation areas. It is determined by the examiner in coordination with the supervisor(s).

## 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.