



HE1016 Electronic Design, Project Course 7.5 credits

Elektronikdesign, projektkurs

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

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for HE1016 valid from Autumn 2008

Grading scale

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

Education cycle

First cycle

Main field of study

Electrical Engineering, Technology

Specific prerequisites

The student should have knowledge about project management, be able to write a technical report and have basic knowledge in digital techniques, microcontrollers, electricity, electronics, computer programming, data- and telecommunication as well as control techniques.

Language of instruction

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

Intended learning outcomes

The aim is to provide the student with specialised knowledge about several areas such as digital techniques, microcontrollers, electricity, electronics, computer programming, data- and telecommunication by practical applications from earlier studies in these topics. The application is preferably chosen from the programme area.

After passing the course the student should be able to:

- Use professional methods common to engineers. This means to balance the work between theory and practise: analyse, evaluate and implement.
- Take part in and manage project groups.
- Make a specification in detail of the requirements from oral or written information.
- Find appropriate modules of the designing task in order to let the members of the project group work concurrently.
- Design a prototype that fulfils the requirements.
- Apply your knowledge in some of the objective topics mentioned above. This consists of transforming the theoretical knowledge into practical design work to a greater extent than what is possible during a laboratory experiment within the courses taken earlier.
- Select the most suitable electrical components depending on the given conditions.
- Present solutions to the problem in a written report.
- Perform an oral presentation with requirements on time and clarity

Course contents

- Designing and implementation of a prototype in the area of the programme
- Investigation of possible solutions with respect to realization, quality, cost and design.
- Documentation and how to make a follow up of the requirements

Course literature

Contact the department for further information

Examination

- PRO1 - Project, 7.5 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.

Other requirements for final grade

Passed project report and oral presentation
(PRO1, 3 ECTS credits: Grading A-F)
Passed prototype

(PRO2, 4.5 ECTS credits: Grading A-F)

The final grade is based on the two parts. Grading A-F

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.