



# HE1029 Electrical Engineering and Internet Technology, Project Course 9.0 credits

Projektkurs inom elektroteknik och internetteknik

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 HE1029 valid from Spring 2011

## Grading scale

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

## Education cycle

First cycle

## Main field of study

Technology

## Specific prerequisites

Basic knowledge in project management, information technology, engineering methodology, computer programming, operating systems, digital and micro computer technology.

To enroll to this course the student must have passed a course in introductory programming, e.g. Computer Programming, Basic Course, with grade E or above.

## Language of instruction

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

## Intended learning outcomes

In this course, the student, in the context of a project, apply and deepen her/his knowledge of electrical engineering and computer networks.

The project is implemented as introduced in previous project course. In this course the students, in a project, further develop their skills in project planning and problem solving. Emphasis is on a clear requirements specification as a basis for the development of a system prototype, in the form of client-server software or a small scale company computer network.

After completing this course the student shall be able to:

- work according to general engineering methods
- according to given instructions, establish a budget and a schedule for the project
- handle the role as project leader
- establish and analyze a requirements specification, including a clear specification of delimitations
- create a prototype or solution according to the given specifications
- describe the prototype or solution in the form of a written report
- configure and maintain a small scale computer network

The student should, after completing this course, also have applied and deepened her/his knowledge in the previous courses in the program so far.

The student shall also acquire knowledge on the basics of internet technology, with emphasis on layered protocols, local area networks and TCP/IP based communication.

## Course contents

Deepening and applying knowledge and skills from previous courses regarding project engineering methods, computer programming, operating systems, digital design and micro computer technology.

The course also introduces internet technology in theory as well as in practice, i.e. building, configuring and maintaining a small scale computer network.

## Course literature

Av institutionen tillhandahållen kursbunt. Ändringar meddelas senast 4 veckor innan kursstart.

## Examination

- PRO1 - Project, 7.0 credits, grading scale: A, B, C, D, E, FX, F
- RED1 - Account, 2.0 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.

Prototype (client-server software or computer network), written and oral report, PRO1, 7.0 credits (ECTS) A-F.

Account, Internet Technology, RED1, 2.0 credits (ECTS) P/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.