



# EL2421 Automatic Control, Project Course 15.0 credits

Reglerteknik, 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 EL2421 valid from Autumn 2012

## Grading scale

P, F

## Education cycle

Second cycle

## Main field of study

Electrical Engineering

## Specific prerequisites

120 credits and documented proficiency in English B or equivalent and at least one of the courses EL1820 Modelling of Dynamical Systems, EL2520 Control Theory and Practice, Advanced Course, EL2620 Nonlinear Control, EL2450 Hybrid and Embedded Control Systems

## Language of instruction

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

## Intended learning outcomes

The student shall collaborate in teams working in a project acquired in Automatic Control courses. The student shall also be able to document and present the work.

In addition the student shall be able to do:

- working in a group
- writing a project plan
- model and simulate a laboratory process
- design a control system that meets given specifications.
- implement control systems in real time computer systems like LabView.
- Presentation of a project and designing a poster.
- Write a project report

## Course contents

- Physical and experimental modeling.
- Control design, analysis and simulation.
- Implementation in real time systems.
- A small groups of students will present the report in a seminar.

## Course literature

Course notes from Automatic Control lab.

## Examination

- PRO1 - Project, 15.0 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.

PRO1 - Project, 15.0 hp, grade scale: P, F

## Other requirements for final grade

The grade will be determined by the students' achievements in relation to the intended learning outcomes.

The students shall submit a project plan, a presentation of the project in a seminar and hand in a project report and a poster.

## **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.