

# EH231X Degree Project in Industrial Control Systems, Second Cycle 30.0 credits

Examensarbete inom industriella styrsystem, avancerad nivå

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

#### **Establishment**

## **Grading scale**

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

#### **Education cycle**

Second cycle

#### Main field of study

**Electrical Engineering** 

# Specific prerequisites

The student shall have at least 210 hp from prior master of science studies, or similar. Further, specific knowledge in subjects central for the thesis can be required

## 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 Industrial information- and control system. Upon completion of this course, participants shall be able to: formulate a scientific idea for investigation in relation to the scientific theories and/or prior research within the area make appropriate choices of scientific methods, motivate and use them in a systematic and competent manner. Be able to formulate relevant and well grounded conclusions in reference to prior research Report the result in a written and oral form at a level that corresponds to the practice.

#### Course contents

The thesis work shall consider a relevant problem within the area of Industrial informationand control system. Suggestions on thesis work can be found on the department's homepage. The student can also suggest subjects for a thesis, but it has to be approved by the supervisor. To be approved as a master thesis subject, an interesting subject within the area of Industrial information- and control system must be defined. The focus of the work should be on investigation and analysis. Programming can be included. 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 specification, a contract, a project plan, and to seek and study literature that is directly relevant for the thesis work. The result is presented in a written report and orally at one of the seminars for master thesis 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.

#### Course literature

Is selected on an individual basis in cooperation with the supervisor

#### **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.

#### Other requirements for final grade

The thesis work is done individually or together with another student. In the later case, the examiner will make sure that each students level of effort is equivalent with the requirements for an individual master thesis work.

The examiner decides on the level of the grade in cooperation with the supervisor. The grade is decided based on the fulfilment on several criteria's, of which one is the execution of the master thesis. Specific criteria's is told in the beginning of the thesis work.

Making an opposition on another master thesis is required for the fulfilment of the course. Other: A student that have 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

#### 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.