



# FIL3009 Advanced Topics in Embedded System Design 7.5 credits

Avancerade studier inom design av inbyggda system

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 FIL3009 valid from Spring 2019

## Grading scale

P, F

## Education cycle

Third cycle

## Specific prerequisites

The course requires good knowledge of the typical design problems in the field of embedded systems. Further, the student is capable to work at an abstract level.

## Language of instruction

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

## Intended learning outcomes

After the course the student shall

- have gained a deep understanding of the research problems in the selected topic area
- be aware of the state-of-the-art in the selected topic area
- be able to compare different approaches with respect to benefits and limitations
- be able to identify new research challenges in the selected topic area
- be able to model problems in the selected topic area at an abstract level and to propose possible solutions

## Course contents

The student shall study the current state-of-the-art in a selected topic area in the field of embedded system design methodologies that are based on a formal foundation. A central part of the course is a literature survey, which will define the research problems and challenges of the topic area. In addition novel techniques shall be evaluated by experiments, and compared with existing techniques. Finally, the student shall put the results of literature study and experimental study into the context of her/his own research topic.

## Examination

- EXA1 - Examination, 7.5 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.

## Other requirements for final grade

The student will present the results of the literature and experimental studies in seminars. At the end of the course the student delivers a report, which gives an overview of the topic area and discusses selected problems in detail.

In order to successfully pass the course, the student has to pass all seminars and the final report.

## 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.