



# IL2212 Embedded Software 7.5 credits

## Programvara för 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

On 2019-10-15, the Head of School of EECS has decided to establish this official course syllabus to apply from the spring semester 2020 (registration number J-2019-1953).

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Computer Science and Engineering, Electrical Engineering

## Specific prerequisites

Completed course at second cycle level in embedded systems equivalent to IL2206 Embedded Systems.

## Language of instruction

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

## Intended learning outcomes

After completing the course, the students shall be able to

- use different models of computation for specification of embedded software systems
- use advanced models and methods for the analysis of embedded real-time systems
- use methods for generation of software from high-level models
- carry out the design process from specification to implementation of an embedded multiprocessor real-time system.

## Course contents

- Design process for embedded multiprocessor real-time system.
- Design requirement for safety-critical embedded software systems.
- Specification of embedded software systems. Model of computation and modelling language. Modeling of the platform.
- Advanced models and methods for the analysis of real-time system.
- Methods for code generation from high-level models.

## Examination

- LABA - Laboratory Work, 3.0 credits, grading scale: P, F
- TENA - Examination, 4.5 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.

## 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.