IL2214 Design Project Course II 7.5 credits

Designprojekt II

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 IL2214 valid from Autumn 2008

Grading scale

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

Education cycle

Second cycle

Main field of study

Specific prerequisites

2B1471 Design Project I must be taken in parallel with this course.

Language of instruction

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

Intended learning outcomes

This course focuses on the development of Systems on Chips and lays the method foundation, both theoretical and practical, how a complex SoC project can be managed and developed. The course is taken together with the Design Project Course I which gives the practical part of implementing a complex SoC Design project.
After this course participants will be able to:

- describe different project process models suitable for IT projects

- describe and outline how a method for IT-projects can be used in different types of SoC-projects. In such a description there should be included discrimination/selection of the values, principles and practices/techniques that are relevant and fit for a specific case and motivate the selections. Questions such as "Why do you work like this?" shall be answered by a relevant and qualified motivation.

- describe, and for simpler problems apply important tools and methods/techniques that supports IT-projects. Important tools and methods/techniques includes those for work with requirements, quality (like testing and reviews), configuration and version handling, project management, teambuilding, group dynamics, leadership, debugging...

- discuss the suitability in different situations of, and for complex problems be able to apply, a tool/method/technique that has been selected and studied in more depth

- define, use, evaluate and refine the way of working on both individual and team level during a project

- compile a retrospective project report

Course contents

- Theories around handling of an (Embedded) SoC project. Planning and estimations. Risk management. Project's task, vision and goal.
- Project specification, working structure, documentation of the design process and the technical project, final report.
- Teambuilding, group dynamics and leadership.
- Simple tools, diagrams and notations for modeling of a prototype as well as planning and calculation of the project process.
- The application of the development process is carried out in the course 2B1471 Design Project I.

Oral and written communication skills:

Text structure, correctness, writing style and formal standard of a report, oral presentation and rhetoric.

Writing proficiency:

- Cause analysis
- Problem solving
- Technical report

Oral proficiency:

- One short presentation to a small group
- One longer presentation to the whole class

Course literature

Implementing Lean Software Development: From Concept to Cash ,
Mary Poppendieck, Tom Poppendieck
Upplaga: Förlag: Addison Wesley
År: 2006ISBN: 0321437381

Examination

- PRO1 - Project, 7.5 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.

Other requirements for final grade

- Exercises [ÖVN1, 3 hp]. Grading: P/F
- Written examination [TEN1, 1,5 hp]. Grading: A-F
- Seminar about deepening study in method [SEM1, 1,5 hp]. Grading: P/F
- Written Reflection [INL1, 1,5 hp]. Grading: A-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.