II2500 Product Realization Processes II 7.5 credits

Processer för produktrealisering 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 II2500 valid from Spring 2009

Grading scale

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

Education cycle

Second cycle

Main field of study

Information and Communication Technology

Specific prerequisites

Language of instruction

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

Intended learning outcomes

Product Realization Processes is a two part course. The first part covers processes, skills and technologies leading to the realization of ICT products intended for the commercial marketplace. Students will become familiar with idea generation, product design, prototyping methods and the steps necessary to show that a potential product can be commercially viable. In addition to the technical aspects of product realization, project processes and methods are also covered. Students will acquire skills for working with and managing groups of technical contributors, and processes for the effective application of technology development in a business environment. These include understanding and working with business components such as marketing, and management. In the second part of the course, students will apply these skills in groups formed as product development teams. In addition to the design and development of a prototype product, student will also practice team building, cross skill collaboration and effective communication skills. Guest lecturer experts will be featured in several specialty areas.

- **•To demonstrate communication skills that satisfies the requirements of technical program management. This includes analyzing and conveying technical as well as business content.**
- **•To know how to measure and derive data, and by using this data analyze the progress of product realization. To be able to deploy methods dealing with risk assessment, contingency planning, failure recovery and success measures.**
- **•To independently and under realistic conditions complete a concrete bounded product development project. To document this work in a systematic report that describes what has been done, and demonstrates the product development project in a way that is readable by others.**
- **•To orally present this work using clear and complete presentation methods and tools.**

Course contents

- **Idea generation, brainstorming processes and team consensus building**
- **•Product visualization, modeling and prototyping techniques**
- **•Consensus building outside the engineering team**
- **•Business processes for product development**
- **•Cost Analysis**
- **•Customer analysis and marketing**
- **•Technical project management**
- **•Resource management of human, material, money and time**
- **Effective communication**
- **•Dealing with failure. Failure analysis, constructively moving forward**
- **•Building on success for continued product and group progress**

Examination

- PRO1 - Project, 6.0 credits, grading scale: A, B, C, D, E, FX, F
- TEN1 - Examination, 1.5 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

Passed written exam TEN1: 3 hp, Grade A-F

Project PRO1: 4.5 hp, Grade 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.