



COMPUTER SCIENCE AND ENGINEERING

DIT827 Software Innovation, 15 credits

Mjukvaruinnovation, 15 högskolepoäng

First Cycle

Confirmation

This course syllabus was confirmed by Department of Computer Science and Engineering on 2017-01-05 and was last revised on 2017-12-19 to be valid from 2018-08-19, autumn semester of 2018.

Field of education: Science 100%

Department: Computer Science and Engineering

Position in the educational system

The course is offered within the Software Engineering and Management Bachelor's Programme.

The course can be part of the following programme: 1) Software Engineering and Management Bachelor's Programme (N1SOF)

Main field of studies

Software Engineering

Specialization

G1F, First Cycle, has less than 60 credits in first-cycle course/s as entry requirements

Entry requirements

To be eligible for this course, students must have successfully completed at least a 7.5 credits project course (for example, DIT092 Mini Project: Team Programming).

In addition, the examiner should agree that the student has the necessary knowledge in the specific area of the project.

Applicants must prove knowledge of English: English 6/English B or the equivalent level of an internationally recognized test, for example TOEFL, IELTS.

Learning outcomes

After completion of the course the student is expected to:

Knowledge and understanding

- explain a project's working practices and scheduling, and reporting of the innovation challenge
- describe the context of research or industrial innovation problems

Competence and skills

- apply and use software development knowledge and skills to develop a solution for a research or industrial problem
- collaborate with external stakeholders on an innovation challenge
- create a demo or a prototype of a product, service, or other innovation, using agile development practices, design, and product research methods
- present project outcomes orally and in writing

Judgement and approach

- reflect on the challenges and opportunities of working in a context of research or industrial innovation

Course content

In this project course, the students are given the opportunity to work on innovation ideas provided by industrial companies or research projects.

Students normally work together in groups of 5-7 students to design and implement a product (or service) prototype. The project is challenging, and requires the students to collaborate and organize their work efficiently. There is little external steering in this project, the students are responsible for the overall planning and setting their own internal deadlines in order to finish the project on time.

Form of teaching

The teaching consists of introductory lectures, weekly meetings, seminars, as well as supervision in connection to the meetings.

Language of instruction: English

Assessment

The course is examined by a written group report, an oral group presentation of a demonstrable system during a seminar at the end of the course, and an individual

written report demonstrating the student's own contribution to the project. The work is normally carried out in groups of 5-7 students.

Each student needs to submit an individual written report where the student shows their:

- artifact contributions to the project and subgroup he/she was a member of,
- role in the project group,
- fulfillment of responsibilities for this role in terms of artifacts and activities,
- interaction and knowledge transfer activities with others, and
- how this contributed to the project as a whole.

In order to pass the course the student is required to complete self- and peer- assessment forms during and at the end of the course which will be part of the assessment of the student's individual contribution to the project.

In case a student fails the project, one individual re-examination is provided. In case of failing that re-examination, the student has to join a new project group.

If a student, who has failed the same examined component twice, wishes to change examiner before the next examination, a written application shall be sent to the department responsible for the course and shall be granted unless there are special reasons to the contrary (Chapter 6, Section 22 of Higher Education Ordinance).

In cases where a course has been discontinued or has undergone major changes, the student shall normally be guaranteed at least three examination occasions (including the ordinary examination) during a period of at least one year from the last time the course was given.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U). To pass the course the student need to pass all the examinations and fulfill the additionally compulsory parts.

To receive the grade Pass with Distinction (VG), the emphasis is on constructive ownership on a group and/or project level throughout the entire project course. Ownership implies documented expertise or integration contribution that is vital for group and/or project success.

Course evaluation

The course is evaluated through meeting after the course between teachers and student representatives. Further, an anonymous questionnaire is used to ensure written information. The outcome of the evaluations serves to improve the course by indicating which parts could be added, improved, changed or removed.

Additional information

The course is a joint course together with Chalmers.

Course literature to be announced the latest 8 weeks prior to the start of the course. It is also up to the students to identify and address such needs based on their particular project focus.