Software Engineering Project

Programme course

8 credits

Programutvecklingsprojekt i ett helhetsperspektiv

TDDD76

Valid from: 2017 Spring semester

Determined by
Board of Studies for Computer Science
and Media Technology

Date determined
2017-01-25

Main field of study
Computer Science and Engineering, Computer Science

Course level
First cycle

Advancement level
G2X

Course offered for
- Applied Physics and Electrical Engineering, M Sc in Engineering
- Information Technology, M Sc in Engineering
- Applied Physics and Electrical Engineering - International, M Sc in Engineering

Entry requirements
Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Prerequisites
Basic knowledge of software engineering theory. The student must be well acquainted with programming in at least one high level language and must have used advanced algorithms and data structures.

Intended learning outcomes
After the course a student shall be able to:
- analyze, limit, plan, perform, and document experiences from a small software project with an external customer,
- work in a group and communicate in written and orally,
- finish project work within a given time frame
- identify different types of activities of a software project, e.g. requirements analysis, design, and test,
- describe the dependencies between the activities,
- describe how the results of an activity should be documented,
- describe how processes are adapted and documented.

Course content
Software development methodology, processes, leadership, team organization, written and oral presentation

Teaching and working methods

A project course that spans over the spring semester. Only a few lectures and seminars are planed. Remaining time is spent on project work. Each project team hands in artefacts that are examined and graded. There is a strict deadline for each artefact.
The course runs over the entire spring semester.
A group of seven or eight students develops a software system. The project is based on a real problem and it is carried out with realistic assumptions, e.g. with a customer that needs the system. A published development process is adapted and followed. During seminars the groups present their achievements. An experience report concludes the course.
Each group presents their work from different perspectives during the series of seminars, where other groups are serving as opponents. Each student must have completed at least one presentation and one opposition. Presence in the seminars is mandatory.
The work is conducted both individually and in groups with guidance from the tutor. Students are required to sign agreements with the client about the secrecy and the right of exploitation according to the wishes of the client.

Examination

PRA1	Project	8 credits	U, G

Grades are given as ’Fail’ or ’Pass’.

Grades

Two-grade scale, U, G

Department

Institutionen för datavetenskap

Director of Studies or equivalent

Ahmed Rezine

Examiner

Kristian Sandahl

Education components

Preliminary scheduled hours: 36 h
Recommended self-study hours: 177 h

Course literature

Kursdeltagarna väljer själva källor i dialog med handledare.

Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://styrdokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.