LINKÖPINGS UNIVERSITET

Advanced Project Course - Game, App and Web Development

Programme course

6 credits

Avancerad projektkurs: Spel-, app- och webbutveckling

TDDE20

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

Information Technology, Computer Science and Engineering, Computer Science

Course level

Second cycle

Advancement level

A1X

Course offered for

- Computer Science and Software Engineering, M Sc in Engineering
- Information Technology, M Sc in Engineering
- Computer Science and Engineering, 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

The course expects the student to have applied project management models in previous courses or other context. The student should also have acquired knowledge equivalent to basic courses in the profile "Game Programming" or similar set of base courses for the webb and app- area covered by the project.

Intended learning outcomes

The project should have significant technical level that requires in-depth subject knowledge in game, web and/or app development, should be carried out in a professional manner, and should develop and consolidate the participants' skills in the following areas:

- Analyze and structure problems.
- Apply knowledge and methods from a wide range of previous courses.
- Independently acquire new knowledge, as required by the project.
- Integrate knowledge from many disciplines and apply them in new contexts.
- Formulate a requirement specification for the project based on a project directive and thereby assess the feasibility of the project in terms of technical solutions and available resources.
- Present the project results for the client as well as for other students, which can not be presumed to be specialists in the techniques used.
- Actively contribute to a well functioning project group.
- Demonstrate the ability to lead the project work with the support of a project model, and with limited access to tutoring resources.
- Plan, implement and monitor a project.

The result of the project word should:

- Attain high technical quality and be based on modern knowledge and practices in the relevant field of technology.
- Be documented in relevant project documents and relevant technical documentation.
- Be presented orally.
- Meet the requirements stated in the specification.

Course content

Description of the projects, with project directives, are available on the course website. The projects will be closely linked to either ongoing research within the field of computer science or to companies active in this field. In the course the students will for example develop a small game, app or webb application or a part of a larger such applications - given open, high-level requirements and where a large part of the work is related to exploring non-functional goals such as design, interaction, feedback, motivation, fun, learning, user experience, brand effect, and so forth. This requires experimentation in search of design alternatives and incremental user testing. Students should expect to build several version of parts of the application of which only one is included in the final result. The requirements and the stake holders will change for year to year.

Teaching and working methods

The project, which is formed according to directive given later, should consist of at least six students. Each group will be assigned a tutor, who will support the group in its work and answer technical questions. For each project, there is a client with whom the project team negotiates a specification. Before project work begins, the project team should create appropriate project management documents for the project.

For each instance of the course, the examiner will present a set of project proposals. Assignment of projects to student groups is based both on their aptitude and their wishes. For each proposal there is a project charter forming the basis for further work. The project begins with the project team developing a requirements specification and relevant project management documentation for their project. The projects should be conducted according to an appropriate development model, selected by the team.

The course runs over the entire autumn semester.

Examination

PRA1	Project	6 credits	U, G

The project work will be assessed on the achievement of course objectives. Three modules, each assessed with pass/fail, are included in the assessment. These topics are:

- Technical level and quality of project results
- Written documentation in the form of technical report and relevant project documents
- Oral presentation

To pass the whole project work, the student is required to pass all parts and meet the objectives of the course. Special emphasis is given to participants actively contributing to the group working according to the project model's intentions. Grades are given as *Fail' or 'Pass'.

Grades

Two-grade scale, U, G

Department

Institutionen för datavetenskap

Director of Studies or equivalent

Jalal Maleki

Examiner

Erik Berglund

Education components

Preliminary scheduled hours: 64 h
Recommended self-study hours: 96 h

Course literature

Additional literature

Other

Specific to the project

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.