LINKÖPINGS UNIVERSITET

Project: Agile System Development

Projekt: Agil systemutveckling
10 credits

Programme course

TDP032

Valid from: 2024 Spring semester

Determined by	Main field of study	
Board of Studies for Computer Science and Media Technology	Programming	
Date determined	**Course level**	**Progressive specialisation**
2023-08-31	First cycle	G2X
Revised by	**Disciplinary domain**	
	Technology	
Revision date	**Subject group**	
	Computer Technology	
Offered first time	**Offered for the last time**	
Spring semester 2021		
Department	**Replaced by**	
Institutionen för datavetenskap		

Course offered for

- Bachelor's Programme in Programming

Prerequisites

Programming

Intended learning outcomes

Having passed the course, the student will be able to:

- develop a graphical interactive system together with other programmers and external client (customer)
- develop software based on agile system development's basic values, methods and tools
- reason about sustainability challenges and sustainability in relation to the development and use of technical systems
- reason about ethical aspects in the development of technical systems
- apply usability principles and integrate usability work within the framework of an agile system development process
- use a method to discover possible gender-related problems when designing a system

Course content

Craftmanship:
- Knowledge of working with agile methodology both individually, in pairs and in groups.
- Ability to communicate and function socially in a good way in a project and team.
- Be able to develop software in the simplest possible way to solve given requirements.
- Be able to take and give feedback in a constructive and rewarding way.
- Work at high speed with good quality and deliver innovative satisfactory results.
- Working directly with source code rather than documentation and being open to continuous changes.
- Plan and carry out usability testing

Subjects:
- Agile development methodology, including techniques such as Planning game, User stories, Time estimation, Scrum board, Burndown charts, Scrum meetings, test-driven development.
- Usability testing, including personas, use cases, formative and summative evaluation.
- Oral communication.
- Sustainability and ethics in relation to the development of technical systems

Technique:
- Programming language and software development environment depending on the project
- Version management system Git, or similar system
- Requirements management and project management in Trello, or similar systems

Teaching and working methods

IP-project, carried out according to the study plan.
The course runs over the entire spring semester.

Examination

UPG1	Assignment	0.5 credits	U, G
PRA1	Project work	9.5 credits	U, G

Grades

Two grade scale, older version, U, G

Other information

About teaching and examination language

The teaching language is presented in the Overview tab for each course. The examination language relates to the teaching language as follows:

- If teaching language is "Swedish", the course as a whole could be given in Swedish, or partly in English. Examination language is Swedish, but parts of the examination can be in English.
- If teaching language is "English", the course as a whole is taught in English. Examination language is English.
- If teaching language is "Swedish/English", the course as a whole will be taught in English if students without prior knowledge of the Swedish language participate. Examination language is Swedish or English depending on teaching language.

Other

The course is conducted in such a way that there are equal opportunities with regard to sex, transgender identity or expression, ethnicity, religion or other belief, disability, sexual orientation and age.

The planning and implementation of a course should correspond to the course syllabus. The course evaluation should therefore be conducted with the course syllabus as a starting point.

The course is campus-based at the location specified for the course, unless otherwise stated under "Teaching and working methods". Please note, in a campus-based course occasional remote sessions could be included.