Course syllabus

Programvaruutveckling för stora projekt
Software Development for Large Projects

ETSF20, 7,5 credits, G2 (First Cycle)

Valid for: 2023/24
Faculty: Faculty of Engineering, LTH
Decided by: PLED C/D
Date of Decision: 2023-04-18

General Information

Compulsory for: IDA2
Language of instruction: The course will be given in Swedish

Aim

The aim of the course is to give the students fundamental knowledge in the principal of project management and development processes and the central concepts in large-scale development of systems containing a significant share of software. The aim is also to give the student experiences of the problems that arise in large projects, were many involved actors and parallel work create situations that have to be handled. The course's ambition is also to develop students' written communication skills.

Learning outcomes

Knowledge and understanding
For a passing grade the student must

be able to:

- Based on predetermined parameters identifying intercultural barriers and describe proper actions
- Explain how a systematic process influence the outcome of a project
- Explain how cooperation and systematic approaches are important ingredients in the solution of these problems.

- Describe learning outcomes and possible improvements related to his/her role in the project and explain the aim of the project.
- Explani basic concepts in Innovation - Entrepreneurship- Intrapreneurship.

Competences and skills
For a passing grade the student must

- Actively contribute in a large software development project that follows a structured and well-documented process.
- On the basis of a given project assignment within the context of a systematic and well-defined development process develop for the project relevant documents
- Develop a system or be able to add new well-functioning services to a given existing system.
- Develop and apply the rules and standards of work in a project group

Judgement and approach
For a passing grade the student must

- In a deliberate way be able to see the problems in the choice of development process and balance the organisational problems against the technical problems.
- Independently reflect on their actions and values i relation to the work in a project group

Contents

In the course, groups of students (approximately 17 students) work together with software development.

The focus in the course is on how software is engineered in an industrial environment. The students use a systematic and well-defined development process, in which relevant documents are to be developed. Quality inspections are made of the project group's work as part of the development process. Different roles are distributed over the project members.

The course incldues an introduction to entrepreneurship as well as genre-adapted written communication.

Teacher supervised tutoring are a direct introduction to the project, while the main part of the course is project work.

Examination details

Grading scale: UG - (U,G) - (Fail, Pass)
Assessment: The assessment is based on both individual and group performance. Active participation in team building activities in the beginning of the course is mandatory. The individual examination consists of a written report and active participation in mandatory course elements and the project work. The project group examination consists of a written report, system delivery and an oral presentation.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Parts
Code: 0117. **Name:** Project.
Credits: 6. **Grading scale:** UG. **Assessment:** The project group examination consists of a written report, a system delivery and an oral examination **Contents:** Project in teams
Code: 0217. **Name:** Individual Assignment .
Credits: 1,5. **Grading scale:** UG. **Assessment:** The individual examination consists of a written report and

active participation in mandatory course elements and project work. Re-examination will be performed with an individually adapted assignment.

Admission

Admission requirements:

- EDAA10 Computer Programming in Java

The number of participants is limited to: No
The course overlaps following course/s: ETS312, ETSN05, ETS032

Reading list

- Pankaj Jalote: A Concise Introduction to Software Engineering. Springer, ISBN: 9781848003019.

Contact and other information

Course coordinator: Universitetslektor Christin Lindholm, christin.lindholm@cs.lth.se
Course homepage: http://cs.lth.se/etsf20/
Further information: Note: The course spans over two study periods. Due to dependencies within the project, the course requires personal presence during all weeks of the course. Project, exercises, laboratory sessions, assignments, presentations and reports are mandatory. This course is given at Campus Helsingborg. Some of the compulsory elements are included in the Ing-days