



LUNDS UNIVERSITET
Lunds Tekniska Högskola

Course syllabus

Affärsdriven programvaruutveckling The Business of Software

ETSF25, 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: C3, D3

Language of instruction: The course will be given in Swedish

Aim

The course aims to give the student insights into and knowledge of the business of software. This includes how market and financial issues interplay with the technical development, the concept of innovation, business models for software products and services, how development resources are created and used, how projects are planned and managed in established companies and in start-ups. The course also aims to shed light on ethical aspects and legal frameworks that impact on software development.

Learning outcomes

Knowledge and understanding

For a passing grade the student must

- be able to account for basic relationships between software development and the market, including different types of innovation
- be able to describe how a business idea can be implemented as a software product or service
- be able to describe how a development project is planned, estimated, managed and monitored
- be able to explain techniques for planning, cost estimation, risk management, project management and monitoring
- be able to describe ethical guidelines for engineers
- be able to describe legal frameworks for intellectual property, patents and software

licences

Competences and skills

For a passing grade the student must

- be able to develop a business plan for a small start-up business and related demonstrators to communicate with funders
- be able to develop a project plan with tollgates and cost estimations for the project and its sub-projects
- be able to identify basic ethical and legal aspects of a project and to reason about these
- be able to choose an open source license for a development project
- be able to write a technical report which follows an established academic structure, including references, tables and figures
- be able to search and in writing summarize and assess relevant scientific publications
- in writing be able to present, interpret and discuss own results
- in writing be able to argue for the relevance of a piece of work/project/study
- in writing be able to argue for own conclusions based on evidence/results

Judgement and approach

For a passing grade the student must

- understand how the market and technology interplays within software development
- understand how project management may be based on metrics
- understand the engineer's responsibility for developed products and services

Contents

- Business models
- Innovation
- Ecosystems
- The business value of customer data
- Project management, planning and control for traditional and agile projects
- Project and organizational levels
- Ethics for engineers
- Legal aspects of software engineering
- Open source licences

Examination details

Grading scale: TH - (U,3,4,5) - (Fail, Three, Four, Five)

Assessment: For final grades, an approved project, approved academic paper and active participation in seminars are required. The final grade in the course is based on the result of the academic paper.

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: 0122. **Name:** Project.

Credits: 4. **Grading scale:** UG. **Assessment:** Approved oral and written project report. Participation in seminars is required for passing grade. **Contents:** Project report.

Code: 0222. **Name:** Academic Paper.

Credits: 3,5. **Grading scale:** TH. **Assessment:** Individual written report that is graded. Participation in seminars is required for passing grade. **Contents:** Written report.

Admission

Admission requirements:

- EDA260 Software Development in Teams – Project or EDAF45 Software Development in Teams - Project or ETSA01 Software Engineering Process - Methodology or ETSA02 Software Engineering - Methodology or ETSA03 Software Engineering - Methodology

The number of participants is limited to: No

The course overlaps following course/s: ETSA05, ETSF01

Reading list

- Bo Tonnquist: Projektledning Upplaga 8. Sanoma utbildning, 2021, ISBN: 9789152360804.
- Vetenskapliga artiklar.
- Materials provided by the department.

Contact and other information

Course coordinator: Elizabeth Bjarnason, elizabeth.bjarnason@cs.lth.se

Course homepage: <http://cs.lth.se/etsf25>