

SYLLABUS

Project in Computer Science and Engineering 15 credits D0020E

Projekt i datateknik

Course syllabus admitted: Autumn 2024 Sp 1 - Present

**DECISION DATE
2024-02-15**

Project in Computer Science and Engineering 15 credits D0020E

Projekt i datateknik

First cycle, D0020E

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	U G#	Datateknik	Computer Technology

Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language and Courses of at least 60 credits at first cycle including the following knowledge/courses: D0004E System Administration and Computer Security, D0010E Object-oriented Programming and Design, D0012E Algorithms and Data Structures, D0002E Computer Communications and D0003E Real-Time Systems

Selection

The selection is based on 1-165 credits.

Course Aim

Knowledge and understanding

- Demonstrate knowledge and ability to work with software engineering both individually and in a group
- Demonstrate knowledge and understanding of proven software engineering methods and theories
- Demonstrate insight in how the industry work with software engineering
- Demonstrate knowledge within the following areas of software engineering:
 - System analysis based on use-cases
 - System analysis through requirement engineering
 - Modeling in UML (Unified Modelling Language)
 - Modeling using patterns
 - Iterative and light-weight system design (Evolutionary Design)
 - Roles, equal opportunities, and gender in software engineering

Competence and skills

- Demonstrate competence and skills in planning and executing basic tasks in developing software-based systems
- Demonstrate competence and skills to critically and systematically identify, formulate, analyze and evaluate design and implementation of software-based systems
- Demonstrate competence and skills in presenting a software-based system in Swedish, orally and in writing Judgment and approach
- Demonstrate abilities to judge societal and ethical aspects of software engineering
- Demonstrate abilities to judge software-based systems in regards to society's goals for economical, social and ecological factors for sustainable development
- Demonstrate insights and capacities of working in a non-homogenous group of 3-6 students (not freely composed groups).
- Demonstrate abilities to search for new knowledge and to continuously develop skills (individually and through collaboration with other students).

Contents

The course starts with a theoretical part that includes system analysis, requirement specification, modeling, design, testing, estimation, risk management, configuration management, quality, maintenance, and documentation. The course includes project work in group where the task is based on an open problem definition that is presented both orally and in writing. The course further includes lab parts, seminars and lectures with obligatory presence.

The course is further specified in a study guide provided at course start.

Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

Lectures, project work, seminars, individual studies, mandatory oral presentation and written reports.

Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided.

Mandatory project report and presentations, as well as labs and presence at obligatory course moments.

Unauthorized aids during exams and assessments

If a student, by using unauthorized aids, tries to mislead during an exam or when a study performance is to be assessed, disciplinary measures may be taken. The term "unauthorized aids" refers to aids that the teacher has not previously specified as permissible aids and that may assist in solving the examination task. This means that all aids not specified as permissible are prohibited. The Swedish version has interpretative precedence in the event of a conflict.

Remarks

The course-plan has been revised from h21 to include sustainable development

Course offered by

Department of Computer Science, Electrical and Space Engineering

Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0003	Project	U G#	10	Mandatory	A17	Yes
0004	Written exam	U G#	5	Mandatory	A24	

Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

Last revised

by Robert Brännström 2024-02-15

Syllabus established

by Jonny Johansson, HUL SRT 2014-02-14