SYLLABUS

Project in Interactive Systems 15 credits D7057E

Projekt i interaktiva system

Course syllabus admitted: Autumn 2023 Sp 1 - Present

DECISION DATE
2022-06-17

LULEÅ
TEKNISKA
UNIVERSITET

Project in Interactive Systems 15 credits D7057E

Projekt i interaktiva system

Second cycle, D7057E

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

Main field of study

Computer Science and Engineering

Entry requirements

Degree of Bachelor of Science or correspondent within the subject area. The student should have knowledge about object-oriented programming and design, the design and analysis of algorithms and data structures, and discrete mathematics, equivalent to the courses D0009E - Introduction to Programming, D0010E - Object-oriented Programming and Design, D0012E - Algorithms and Data Structures, D7009E - Algorithms, and M0009M - Discrete Mathematics.
Good knowledge in English equivalent to English 6. More information about the English language requirements [http://www.ltu.se/edu/bli-student/Application-process/English-language-requirements-1.109316?l=en]

Selection

The selection is based on 30-285 credits

Course Aim

The student will work independently and in groups to investigate the usability of different models of computation and computational techniques, study and analyse different computational problems, as well as to report the results with both written documentation and oral presentation.The focus of the course in on solving problems that result in a larger software system that utilizes modern interaction and computer gaming technologies.

The student should be able to:

- work in a group with jointly solving a bigger computer software problem that utilizes modern interaction technologies
- demonstrate the ability to critically, independently and creatively identify, formulate and solve a computer science problem
- demonstrate the ability to identify the need for knowledge to solve a computer science problem and to apply knowledge in mathematics and computer science for specific issues
- have an understanding of ethical problems related to computational solutions
- model, simulate, predict and evaluate the computational solutions with respect to resource consumption and the sustainability
- demonstrate the ability to participate in development work and thereby contribute to the development of knowledge in computer science
- demonstrate an ability to discuss and explain the development process, both orally and in writing with specialists as well as laymen

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Contents

The course consists of work in a project group where the assignment is based on an interesting computer science problem. Students will apply knowledge obtained from the previous courses and from the search in the literature to solve the given problem in a team. The students should be able to explain, compare and analyze the computational solutions with respect to resource consumption and sustainability.The students plan and implement the project independently with the support of the supervisor.

Realization

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

The students are part of choosing the project they are going to work on. Regular accounts of the work progress are presented to the supervisor. The course contains lectures, project work, seminars, individual study, mandatory oral presentations, 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 meetings with the supervisor for oral presentations of the work progress, self assessments of the student's own work, and seminars. The final result is presented with a written report and a seminar and packaging of the within the course developed software.

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 can not be combined with other project course at advanced level from the Department of Computer Science, Electrical and Space Engineering.

Course offered by

Department of Computer Science, Electrical and Space Engineering

Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0001	Project	U G#	15	Mandatory	A20	Yes

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 HUL Jonny Johansson 2022-06-17

Syllabus established

by Jonny Johansson, HUL SRT 2020-02-21