

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DIT577 Research-oriented course in Computer Science and Engineering, 7.5 credits

Forskningsinriktad kurs inom data- och informationsteknik, 7,5 högskolepoäng Second Cycle

Confirmation

This course syllabus was confirmed by Department of Computer Science and Engineering on 2021-11-15 to be valid from 2022-08-29, autumn semester of 2022.

Field of education: Science 100% *Department:* Department of Computer Science and Engineering

Position in the educational system

The course is offered within several programmes.

The course can be part of the following programmes: 1) Computer Science, Master's Programme (N2COS), 2) Applied Data Science Master's Programme (N2ADS), 3) Game Design & Technology Master's Programme (N2GDT) and 4) Software Engineering and Management Master's Programme (N2SOF)

Main field of studies	Specialization
Computer Science	A1F, Second cycle, has second-cycle course/s as entry requirements
Software Engineering	A1F, Second cycle, has second-cycle course/s as entry requirements
Data Science	A1F, Second cycle, has second-cycle course/s as entry requirements
Interaction Design	A1F, Second cycle, has second-cycle course/s as entry requirements

Entry requirements

The student shall have a Bachelor's degree in Computer Science, Software Engineering, or another relevant area.

In addition, a mandatory pre-requisite to take this course is that the student has the necessary knowledge to take the specific instance of this course.

Applicants must prove knowledge of English: English 6/English B or the equivalent level of an internationally recognized test, for example TOEFL, IELTS.

Learning outcomes

After completion of the course the student should be able to:

Knowledge and understanding

- Understand and explain the terminology, concepts and theories associated with the research area of the course
- Describe and explain the research area of the course, and show insight into current research and development
- Describe and explain research methods within the research area of the course

Competence and skills

- Critically and systematically integrate knowledge and to analyse, assess, and deal with complex issues in the research area of the course
- Clearly communicate the key ideas, concepts and results in the area of the course both orally and in writing

Judgement and approach

• Search for, and extract, necessary information from scientific publications in the research area of the course, with the purpose of identifying strengths and weakness of solutions, approaches and methodologies

Course content

This course will deal with an area of current interest within the general area of computer science, software engineering, interaction design or data science.

The course gives students the chance to follow a graduate course or another research centered course.

Sub-courses

1. Examination (Examination), 7.5 credits

Grading scale: Pass with distinction (5), Pass with credit (4), Pass (3) and Fail (U)

Form of teaching

The organisation of the course may include lectures, tutorials, seminars, and/or labs and supervision in conjunction with these.

Language of instruction: English

Assessment

The examination might vary on each instance of the course. It might consist of a written or take-home exam, assignments, presentation of work in a seminar, or a combination of these. Further information will be given on the home page for each instance of the course.

If a student, who has failed the same examined component twice, wishes to change examiner before the next examination, a written application shall be sent to the department responsible for the course and shall be granted unless there are special reasons to the contrary (Chapter 6, Section 22 of Higher Education Ordinance).

In cases where a course has been discontinued or has undergone major changes, the student shall normally be guaranteed at least three examination occasions (including the ordinary examination) during a period of at least one year from the last time the course was given.

Grades

The grading scale comprises: Pass with distinction (5), Pass with credit (4), Pass (3) and Fail (U).

To pass this course with grade 3 the student needs to demonstrate good knowledge of the course subject in all parts of the examination of the specific instance of the course.

To pass the course with grade 4 the student needs to demonstrate a deeper understanding of the course subject in all parts of the examination of the specific instance of the course.

To pass the course with grade 5 the student needs to demonstrate a much deeper understanding of the course subject in all parts of the examination of the specific instance of the course.

Course evaluation

The course is evaluated through meeting after the course between teachers and student representatives. Further, an anonymous questionnaire is used to ensure written information. The outcome of the evaluations serves to improve the course by indicating which parts could be added, improved, changed or removed.

Additional information

It is the responsibility of the student to establish contact before the course starts with the examiner of the course, and to show that they have the necessary knowledge to start the course.

The course is a joint course together with Chalmers.

The course literature might vary on each instance of the course. The course literature will be given on the home page of each specific instance of this course.

The course replaces the course DIT576, 7.5 credits. The course cannot be included in a degree which contains DIT576. Neither can the course be included in a degree which is based on another degree in which the course DIT576is included.