



DH2624 Human-Computer Interaction - a Didactive Perspective 7.5 credits

Människa-datorinteraktion med didaktisk inriktning

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

On 2019-10-15, the Head of School of EECS has decided to establish this official course syllabus to apply from the spring semester 2020 (registration number J-2019-2182).

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Computer Science and Engineering

Specific prerequisites

Completed course in basic programming equivalent to DD1312, and basic courses in pedagogy equivalent to DIK200, UCK310, UMK310 and UMK701.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After passing the course, students should be able to:

- apply established methods to examine what characterises an intended target group and use situation based on a given design task
- formulate realistic requirements for a given design task by studying the current situation (user studies, studies of existing technology, HCI theories)
- design and assess alternative solutions, and in groups discuss their qualities and limitations based on literature, user studies and experiences of other existing technology
- shape the intended design by means of different tools and materials ranging from paper sketches to digital interactive prototypes
- evaluate own design as well as design by others, with and without users, in order to support justified design decisions in HCI
- as a part of an iterative design process, make reflections grounded in relevant HCI theories and methods
- communicate and present design properties of interactive artifacts for different stakeholders
- relate theories and methods in HCI to other software engineering principles
- relate theories and methods in HCI to economic factors
- discuss didactic methods and examination in HCI

in order to

- be able to carry out teaching in HCI.

Course contents

Theoretical and practical overview of human preconditions and consequences of using interactive computer systems, as well as how usability design and user experience design can support the users in performing their tasks smoothly. The course will give an overview of behavioural science methods and theories as well as how they relate to use and design of interactive computer systems. Focus will, however, be on different forms of established practice in human computer interaction.

Within the scope of the course the students carry out and justify a relatively small design task that relates to a current HCI challenge. The students practice analysing user needs, user interfaces, and work situations and will be called upon to suggest how interactive computer systems can be designed.

The didactic part will treat different didactic aspects of HCI based on the students' previous knowledge and skills in didactics. In addition the students will plan and design a teaching and learning occasion for upper secondary school students. This part is also included to create favorable conditions for others for others to learn the importance of human computer interaction.

The teaching assumes that the students work independently and actively in parallel with scheduled teaching.

Examination

- PRO1 - Project, 3.0 credits, grading scale: P, F
- UPP1 - Examination, 4.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

In UPP1, written assignments and active participation in seminars is included.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.