CH2010 Cognitive Interaction Design 7.5 credits

Kognitiv interaktionsdesign

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

Establishment

Course syllabus for CH2010 valid from Autumn 2023

Grading scale

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

Education cycle

Second cycle

Main field of study

Technology and Health

Specific prerequisites

Academic first degree, 180 higher education credits/ECTS, in engineering or natural sciences and English B/6

Language of instruction

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

Intended learning outcomes

After completing the course, the student shall:

· understand and apply knowledge about human cognitive prerequisites in theinteraction between human-machine interface,

· analyze and suggest improvements of the interface in human-machinesystems,

· understand and evaluate how allocation of functions in the human-machine systemsaffects the interaction of human-machine and systemperformance,

· visualize and apply cognitive aspects in a HTOanalysis,

· read, understand and discuss international scientific publications in the field of cognitive ergonomics.

Course contents

- The human as an information processing system
- Human cognitive prerequisites
- Usability design of the human-machine interface
- Methods of analysis and design for usability
- Distributed cognition
- Situation awareness
- Automation and allocation of functions human-machine system
- Find, read summarize and reflect on scientific articles on the subject

Examination

- SEM1 - Assignment and seminar, 0.5 credits, grading scale: P, F
- SEM2 - Assignment and seminar, 0.5 credits, grading scale: P, F
- SEM3 - Assignment and seminar on reporting of studies, 1.5 credits, grading scale: P, F
- SEM4 - Examination and seminar, 1.5 credits, grading scale: P, F
- TEN1 - Written examination, 3.5 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.

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.