HN2019 Cognitive Ergonomics 7.5 credits

Kognitiv ergonomi

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

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

Establishment

Course syllabus for HN2019 valid from Autumn 2018

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 or equivalent education.

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 the interaction between human-machine interface,

- analyse and suggest improvements of the interface in human-machine systems,

- understand and evaluate how allocation of functions human-machine systems affects the interaction of human-machine and system performance,

- visualize and apply cognitive aspects in a HTO analysis

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

The course includes lectures, seminars, assignments, seminars and a final written examination.

Course literature

The course literature is posted on the course's homepage at least four weeks before the course starts. Previous used literature is as follows:

- Norman, D.A. (2013). Design of Everyday Things (2013). ISBN 978046505065

- Bohgard, M. (ed.) (2009). Work and technology on human terms. Stockholm: Prevent.

- Material handed out during the course

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 - 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.

Requirements for final grade:

Passed written and oral presentation of assignments and active participation in seminars.

The final grade (A-F) is decided from the results of the final examination and passed grade for assigments and seminars.

Other requirements for final grade

SEM1 - Assignment and Seminar, 0,5, grade scale P/F

SEM2 - Assignment and Seminar, 0,5, grade scale P/F

SEM3 - Assignment and Seminar, 1,5, grade scale P/F

SEM4 - Assignment and Seminar, 1,5, grade scale P/F

TEN1 – Examination, 3,5, grade scale A, B, C, D, E, Fx, F

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.