Contextual usability

15 higher education credits

Course code: 1MD021
Established: 2008-03-13
Established by: Teknisk-naturvetenskapliga fakultetsnämnden
Requirements: 120 credits with 60 credits science studies including an introductory course in human computer interaction.
Level of education: Advanced level
Grading System: U Fail, 3 Pass, 4 Pass with credit, 5 Pass with distinction

Main Area of Studies

Computer Science
Human-Computer Interaction
Technology

Learning outcomes

To give knowledge of important problems and prerequisites to be able to develop useful IT-systems within different organisations in the working life. To take part of and understand experiences of both successful and unsuccessful development projects.

The student should:

- be able to account for the connections between organisational development and software engineering
- be able to account for important working environment problems in connections with IT-supported work and how such can be prevented
- be able to describe methods to assess the effectiveness of usable IT-systems
- be able to list important aspects on design of operator work in complex domains
- be able to describe and analyse implemented/deployed projects with regards to processes of change
- be able to apply methods for "future workshops"

Contents

- The relation between organisational development and software engineering. Future workshops. Design of work processes and adjusted IT-support.
- IT-supported work, working environment and health. Requirement, control and support. How one should develop and introduce new IT so that one avoids work environment problems.
- IT, usability and use. What are the benefits of developing usable systems? How usability can be evaluated in practice Economical revenue - and cost-benefit analyses.
- Difficulties when working with usability in practice. Practical experiences of working with usability in development projects.
- Specific problems and possibilities with usability work in some different sectors.
o Process control and operator work: Models of human control of complex systems. The "GMOC model". Design of useful control systems and operator interfaces. Practical examples from projects within process and traffic control.

o Information systems in healthcare: Administrative systems, medical technical system and patient journals. The special need of the healthcare. Practical examples from some larger development projects in healthcare.

o Administrative systems, office work and case handling: Design of work where all activities take place with IT-support. Usability, efficiency and influence on the individual. Implementation of larger development project with usability in focus - problem, possibilities and experiences.

Instruction

The teaching consists of lectures, guest lectures, seminars and supervision of in-depth assignments, which are made individual or in smaller groups.

Examination

- Active participation in teaching and seminars (5hp).
- Specialisation in and analysis of a concrete usability project. Written and oral presentation (10hp).