Contextual usability, HT08

15 higher education credits

Course code: 1MD021

Course homepage: http://www.it.uu.se/edu/course/homepage/contextuse/ht08

Contents
The course will be based on much of the material taught in earlier MDI courses and courses in the master program. We will continue to *study and analyse how MDI related methods and techniques can be implemented in practice, and try to understand pitfalls as well as success factors in this respect.*

Main topics will be:

- The relations between development of organisations and work processes on one hand and IT-systems on the other hand. The importance of including organisational aspects in development projects. Methods for development of organisations and work processes, e.g. vision seminars, future workshops etc.
- Work environment and health risks in IT supported work. Stress, physical and cognitive problems.
- Methods for evaluation of usability and cost/benefit of IT investments and IT systems. Usability indexes, the “productivity paradox” and cost/benefit analysis e.g. the PENG-model etc.
- Specific usability problems in some different work domains, e.g. health care, human control of complex systems and administrative work. Special needs in the health care sector. Process control, the GMOC-model, situation awareness, operator work and interfaces, usability in health care, case handling work etc.
- Systems development projects with focus on efficiency, usability and work environment: problems, pitfalls and success factors. The Chaos report. Analysis of some cases from different sectors, with focus on both development processes and the outcome of the process, i.e. new organisations, work processes, IT-systems etc.
- Important aspects of attitudes and ethical starting points, methods for successful development and deployment of IT systems in professional environments.

Lectures, seminars and site visits
The course will be based on lectures, guest lectures, seminars and some site visits. There will be relatively few traditional lectures. The course will be more of own work in small groups. The different group assignments will be presented and discussed during seminars. Each separate group assignment must also be documented as a written report. The different documents should be put together in a course folder.

Additional lectures will/can be arranged when the participants requires this, i.e. when there is a need for more detailed lectures we will arrange this during the planned seminar meetings.
Schedule
A detailed schedule is specified separately. The schedule consists of a number of seminars. During these seminars the lectures, guest lectures and the presentation and discussion of the assignments will take place. There will also be some site visits as described in the schedule.

Assignments
For each part of the course there will be a group assignments specified. Each group must perform the assignment, present and discuss it during a seminar and produce a written report. A detailed plan and instructions for each different assignment will be presented as separate documents.

The following introductory seminars are planned:

  - Introduction to the course 2h
  - Introduction to Organisational and systems development, vision seminars 4h
  - Introduction to Work environment problems 4h
  - Introduction to Cost-benefit analysis of IT systems 4h
  + Introduction to Process control systems 4h
  + Introduction to Health Care systems 4h
  + Introduction to Administrative systems 4h
  * Introduction to Systems development models – case studies of success and failure 4h
  * Introduction to Attitudes and Ethical standpoints 4h

The assignments shall be made in groups of 2-3 persons. Each group must perform all compulsory assignments (* above) and one of the optional ones (+ above).

This means that each group writes and presents 6 different assignments during the course.

Literature
There will be no specific text book. We will continuously during the course show relevant material, but most of the material must be collected by the groups from books, articles and from Internet.

Examination
Examination is performed through active participation in the seminars and oral and written presentations of the assignments.

Grading System: U Fail, 3 Pass, 4 Pass with credit, 5 Pass with distinction