STUDYBOARD OF COMMUNICATION AND DIGITAL MEDIA
Fall 2015

Semester description for 9th semester, Information Science, CPH E2015

Semester details   *School:* School of Communication, Art and Technology (CAT)   *Study board:* Studyboard for Communication and Digital Media   *Study regulation:*   http://www.fak.hum.aau.dk/digitalAssets/107/107906_ma_human_centred_informatics_2015_hum_aau.dk.pdf
Semester organisation and time schedule   The 9th semester comprises the following modules: Human Centered Informatics in Practice, project module, 25 ECTS   • Writing of semester project: Theoretical and methodological reflections on IT development in practice.   Research Methodology, study subject module, 5 ECTS   • Primary goal of the course: to prepare students for planning and conducting large research projects within the field of information science as part of their master thesis. The course is therefor designed for students to complete a thesis application based on through theoretical and methodological reflections. The thesis synopsis count as the final written exam of the course.   • 4 whole day working seminars, first seminar September 21st from 10.15 – 15.   • A pass/failed written exam based on the thesis synopsis plus additional component.
Semester coordinator and secretariat assistance   **Anchor person:** Rikke Magnussen(rikkem@hum.aau.dk)   **Secretariat assistance:** Karin Jensen(kje@hum.aau.dk)

Module description

Module title, ECTS credits

"Human Centered Informatics in Practice"
The module comprises 25 ECTS points equal to 687,5 working hours.

Location

9. semester, Information Science

Module coordinator

Rikke Magnussen (rikkem@hum.aau.dk)

Type and language

Project module
English

Objectives

The theme of the module is the practical reality of human centered informatics. The main component of the module is a three-to-four-month practice oriented work placement, where students collaborate on solving an issue on the basis of human centered informatics in a relevant company, organisation or institution. The idea is for students to develop a knowledge and understanding of the concrete work reality that this programme is directed towards. The work practice will be elucidated in a written report on the basis of the theory and methods of the entire study programme.

As part of the practice oriented work placement, students are expected to carry out an interview with their company, organisation or institution. The interview must elucidate the company, organisation or institution's need for the student's knowledge, skills and competences. The interview will be included in the report as an appendix and also as part of the report in the shape of a brief, edited summary.

In exceptional circumstances, the Study Board may approve that the practice oriented project is not undertaken at a company or organisation, but at the University in the shape of a constructed case directed towards implementing knowledge within human centered informatics in practice.

The module also comprises:

* a halfway evaluation and an evaluation when the practice oriented work placement has been completed

Academic supervision will be offered and the teaching will be organised as a practice oriented work placement.

Objectives

In this module students will acquire:

Knowledge of
* theory and methods of human centered informatics in practice with particular emphasis on the interface of theory and methods on the one hand and the cultural, organisational and/or technological complexity of the application area on the other hand
* the actual work situation towards which the programme is directed
* communication and collaboration practices within the field of informatics
* competence requirements of the discipline in work contexts.

Skills in
* working in practice on the basis of informatics, including applying strategies and methods for user analysis, pilot studies, system development and system design

- assessing issues and solutions within the field of informatics in practice, on the basis of theories and methods for user analysis, pilot studies, system development or system design
- communicating knowledge within informatics to peers and laypeople
- managing themselves in work contexts with a view to identifying issues pertaining to skills and competences.

Competences in
- taking an analytical, reflective and critical approach to the preconditions for user analysis, pilot studies, system development or system design in practice
- taking an analytical, reflective and critical approach to user analysis, pilot studies, system development or system design in practice
- engaging in disciplinary and interdisciplinary collaboration on user analysis, pilot studies, system development or system design in practice, with a professional approach
- identifying own learning needs and structuring own learning in relation to the subject area of user analysis, pilot studies, system development or system design in practice.

Scope and expectations
In case the student has produced a product or contributed to the production of a product during the internship, the requirements for literature is reduced by 50 % - equal to 1250 pages.

Module activities (course sessions etc.)
Internship in public or private organisations
The course 'Research Methodology'

Examination 6
An external oral examination in: **"Human Centered Informatics in Practice"**

The examination is a conversation between the student(s) and the examiner and external examiner based on a project report produced individually or in a group. The project report/written work will be considered the shared responsibility of the group. Students will be examined and assessed on the basis of the entire project report, and one combined grade will be awarded each student for the project report and the oral performance.

Literature foundation: 2500 standard pages supervisor approved, self-selected literature related to the project.

In case a large or several smaller products that the students have made or provided significant contributions to in the course of the internship is handed in along with the project, literature foundation is reduced by 50 % - i.e. to 1250 pages .

The project report: total number of pages must be no less than 15 pages and no more than 20 pages per student in a project group, and 30 pages if written individually.
Duration of examination: 20 minutes per student and 10 minutes per group for assessment and announcement of result, although no longer than a total of two hours. 30 minutes in total for individual examinations.
Evaluation: Grading according to the 7-point scale.
At oral group examinations, the examination must be conducted in such a way that individual assessment of each individual student's performance is ensured.
The project report and the conversation must demonstrate that the student fulfils the objectives for the module stated above.
In the evaluation of the examination performance, the grade 12 will only be awarded to students who give an excellent performance and demonstrate that they have fulfilled the above objectives exhaustively or with only few insignificant omissions.
Any re-examinations will be held on the basis of the revised project report.

Module description (description of each module)

"Research Methodology" 5 ECTS

Location 9. semester Information Science
Module coordinator Anders Drachen (drachen@hum.aau.dk) **Study secretary:** Lone Nørstad, lonen@hum.aau.dk
Type and language Study subject module English

Objectives

In the module students will learn to plan large and complex research studies independently and on the basis of human centered informatics. Emphasis will be on the student's independent identification and description of the research object, and on the student's reflections on various methodological approaches for the implementation of the research study, including quantitative and qualitative approaches.

The module comprises virtual courses, seminars and supervision within the following area:
- research design and planning

Objectives:

In this module students will acquire:

Knowledge of:
- disciplinary paradigms and scientific methods
- the correlation between theory of science, scientific methods and choice of theory in scientific research studies

Skills in:
- structuring subject specific research studies and research projects, including choice of research object, method and theory
- assessing the consequences of various methodological and theoretical approaches to subject specific studies and research projects

Competences in:
- structuring subject specific studies and research projects in specific contexts in practice
- working independently and engaging in professional collaboration as regards the structuring of subject specific studies and research projects, with a professional approach.

Academic content and basis

The primary aim of the course is to prepare participants for planning and conduction of large research projects within the field of information science as part of the completion of their master thesis. The course is therefore designed for all participants to complete a thesis synopsis based on through theoretical and methodological reflections, plus some additional written components. This will also count as the final written pass/fail exam of the course.

Scope and expectations

The module comprises 5 ECTS points equal to 137,5 working hours.

Module activities

COURSE SCHEDULE – SUBJECT TO CHANGE GIVEN ROOM AVAILABILITY

RM1: Monday 21/9, 10.15 – 15 (Anders):

10.15-12.00: Welcome and introduction to masters projects and master's thesis, description of Fall 2015 deliverables. Formal demands, Research Design template and requirements. Example of previous theses. Experiences from former students.

12.00-14.00: Written test in Research Methodology (based on the pre-course readings). The test forms part of the written deliverable for the course. Test is with all reading materials allowed, including internet, laptops etc.

14.00-15.00: *Exercise*: Formulating first ideas for a masters project.

Reading

1) Yvonne Bui: How to Write A Masters Thesis, Sage Publishers
2) Kenneth Bordens and Bruce Abbott: Research Design and Methods, A process approach. 8th edition or newer. McGraw Hill.
Official requirements for intern report and thesis synopsis (on AAU websites)

Homework

Writing a 1-pager proposing a research project following the Research Design template.

RM2: Friday 25/9, 10.15-15 (Anders)

10.15 – 11.45: *Lecture*: The Scientific Method and Empirical Research
11.45 – 13.30: *Exercise*: Group discussions about 1-pagers, work towards extending these to 8-10 pagers.
13.30-15.00: *Lecture*: Research design models and Objective measurement strategies

Reading

Ars Technica, http://arstechnica.com/science/2007/09/the-pseudoscience-behind-homeopathy/
Research papers (see below)

Homework

All students must find and reach a research paper fitting their proposed project. Each student must prepare a 5-minute presentation critiquing the paper.

RM3: Monday 28/9, 10.15-15 (Anders)

10.15-12.15: *Lecture:* Descriptive statistics
12.15-13.00: *Exercise*: critiquing research papers in groups, summarizing in class.
13.00-15.00: *Lecture*: Information Literacy: how to find information

RM4: Friday 2/10, 10.15-15 (Anders and Rikke)

10.15-12.15: *Lecture*: Methodological framework in IT research design, presentation and discussion of methodological models & Theory based design. Converting theory & methodology to practice and designs.
12.15 -13.15: *Lecture*: Survey design (Anders)
13.15-15.00: *Exercise*: QA session about the course deliverable. Work on deliverable.

Reading

Fields, Questionnaire Design

Blomberg, J., Giacomi, J., Mosher, A. & Swenton-Wall, P., (1993): "Ethnographic field methods and their relation to design". i (Red.) D. Schuler & A. Namioka: Participatory design: Principles and

practices. (s.123-155). Hillsdale, NJ: Lawrence Erlbaum Associates.

Marianne and Annemarie Mol (2000) 'The Zimbabwe bush pump: Mechanics of a fluid technology', Social Studies of Science 30(2 0)

Wenger, E. (2000). Communities of Practice and Social Learning Systems. Organization, 7: 225-246.

NOTE: SYNOPSIS HAND-IN DEADLINE: October 9th, 12.00 to Karen Holm Greve - synopsis must be handed in both to the Study Secretaries and to the CPH Student Board representative for the 10th semester (Anders Drachen).

Course books (to be read before the first lecture):
1) Yvonne Bui: How to Write A Masters Thesis, Sage Publishers
2) Kenneth Bordens and Bruce Abbott: Research Design and Methods, A process approach. 8th edition or newer. McGraw Hill.

Examination (Examination 7)
An internal written examination in English in **"Research Methodology"**

The examination is a take-home assignment in which the student/s will explain the design of a large subject specific study within the disciplinary area of the programme, on the basis of the module, however the actual study will not be carried out. The student/s will choose the topic, and the submission deadline will be set by the the course organizers.

The written assignment may be prepared in groups of up to three students given permission by the course organizers. If the written assignment is prepared in a group, it must be stated which student is responsible for which part of the work. The written performance will be assessed, that is, each student will be assessed on the basis of the specific paragraphs written by that student. The written assignment paper must not exceed eight pages if written individually, ten pages if written in groups of two, and twelve pages if written in groups of three students.

Evaluation: pass/fail

In the evaluation of the examination performance, the assessment of 'pass' will be awarded to students who demonstrate that they have fulfilled the above objectives to a satisfactory extent.

The assignment paper will be evaluated by the examiner; in case of a fail grade, the assignment paper will also be evaluated by another internal examiner.

The study elements on which the examination is based is equivalent to 5 ECTS.