



AALBORG UNIVERSITY
DENMARK

STUDYBOARD OF
COMMUNICATION
AND DIGITAL MEDIA
Fall 2015

Semester description

9th semester Human Centred Informatics

Semester details <i>School:</i> School of Communication, Art and Technology (CAT) <i>Study board:</i> Study board for Communication and Digital Media <i>Study regulation:</i> http://www.fak.hum.aau.dk/digitalAssets/107/107906_ma_human_centred_informatics_2015_hum_aau.dk.pdf
Semester framework theme The framework theme for 9 th Human Centered Informatics is “Human Centered Informatics in practice”, thus focusing on 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
Semester organisation and time schedule The semester comprises the following modules <ul style="list-style-type: none">• Human Centered Informatics in Practice”, project module, 25 ECTS• “Research Methodology”, course module, 5 ECTS
Semester coordinator and secretariat assistance Semester coordinator: Ann Bygholm (ann@hum.aau.dk), Secretary: Pia Knudsen (piak@hum.aau.dk)

Module description

“Human Centered Informatics in Practice” (Informationsvidenskab i praksis) The module comprises 25 ECTS points equal to 687,5 working hours. 25 ECTS
Location 9th semester Study board for Communication and Digital Media
Module coordinator: Janne Bang
Type: internship, Work experience, project module, course work, online activities Language: 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
- a virtual learning course during the practice oriented semester comprising presentation techniques, negotiation techniques, business communication etc.

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.

Academic content and basis

The module focuses on theoretical and methodological design, implementation, and/or evaluation of ICT system in practice with a particular focus on the organization that the student do their internships in. Through the module lectures and project advising will have focus on student design, implementation and/or evaluation of it product for specific organizational context based on theories and methods from the entire program.

Scope and expectations

The scope of this module is 25 ECTS – this includes practice oriented work placement, the virtual course and the production of a project report.

<p>Module activities (course sessions etc.) The activities of the project module is mentioned above</p>
<p>Examination (Examination 6) An external oral examination in: “Human Centered Informatics in Practice”</p> <p>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.</p> <p>Literature foundation: 2500 standard pages supervisor approved, self-selected literature related to the project.</p> <p>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 % - ie to 1250 pages .</p> <p>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.</p> <p>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.</p> <p>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 must be handed in 24.th. November 2015</p> <p>Credits: 25 ECTS</p> <p>The project report and the conversation must demonstrate that the student fulfils the objectives for the module stated above.</p> <p>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.</p> <p>Any re-examinations will be held on the basis of the revised project report.</p>

Module description (description of each module)

<p>Research Methodology 5 ECTS</p>
<p>Location 9. Semester Human Centred Informatics Communication and Digital Media</p>
<p>Module coordinator Ann Bygholm</p>
<p>Type and language Study subject module Language: English</p>
<p>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</p>

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

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

Focus of the course Research Methodology is to support student's theoretical and methodological reflections on their IT practice in internships. The primary goal is to prepare students for planning and conducting large research projects within the field of Human Centered Informatics as part of their completion of their master thesis. The course is therefore designed to support students in writing their thesis application based on theoretical and methodological reflections. This will also count as the final written exam of the course.

Scope and expectations

The course is planned as 7 late afternoon sessions (using adobe connect) with presentations, discussions and readings. Course literature is textbooks on research designs and additional articles on theories and methods relevant for preparing a research design for the master thesis. A recurrent issues in the course is also to reflect the specific topics on the course to the students on-going thesis planning.

Module activities

Schedule

We plan 7 online meetings:

1. Tuesday 22th September, 2 -4 pm

Introduction: Teachers present themselves, the course and the formal demands for the semester and the course, student present themselves, their working tasks in internship and their preliminary ideas on master project themes. We also discuss different paradigms in qualitative research

Literature:

Study regulation

Bordens & Abbott: Chapter 1

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage.

2. Monday 28th September, 2-4 pm

Literature review/related work

An important part of any research is to establish what is already known on the subject. In this session we examine different strategies for doing literature reviews/related work.

Literature:

Javier A. Bargas-Avila and Kasper Hornbæk: Old Wine in New Bottles or Novel Challenges? A Critical

Analysis of Empirical Studies of User Experience. CHI 2001, May 7-12, 2011, Vancouver, BC, Canada
Justus J. Randolph: A Guide to Writing the Dissertation Literature Review. In Practical Assessment, Research & Evaluation, vol. 14, No 13, June 2009
Helen Mongan-Rallis: [Guidelines for writing a literature review](#).
Bordens & Abbott: Chapter 2+3

3. Friday 2th October, 2-4 pm

Use, practice and field studies 1

This session focus on methods and methodologies to collection and analysis of empirical data (Ethnographic research, Grounded theory and Observation)

Literature:

The Good Research Guide chapter 6, 8 and 11

Bordens & Abbott: Chapter 4

Davide Nicolini: Zooming in and out: Studing Practices by Switching Theoretical Lenses and Trailing Connections

4. Monday 19th October, 2-4 pm

Use, practices and field studies 2 (Phenomenology, Interviews and Document analysis)

This session focus on methods and methodologies to collection and analysis of empirical data

Literature:

The Good Research Guide chapter 7, 10 and 12

Uri Gal, Y. Yoo & R.J. Boland: The dynamics of Boundary objects, social infrastructures and social identities

5. Tuesday 20th October, 2-4 pm

Evaluation and Usability studies (activity theory). This session focus on requirements to and planning of evaluation and usability studies

Literature:

K. Kuutti: Activity Theory as a Potential Framework for Human-Computer Interaction Research. In B. A. Nardi: Context and Consciousness. MIT Press 1996

J.S. Ash, D.F. Sittig, E.G. Poon, K. Guappone, E Campbell, R.H. Dykstra: The Extent and Importance of Unintended Consequences Related to Computerized Provider Order Entry. In Journal of the American Medical Informatics Association Volume 14 Number 4 July / August 2007.H.S. Wentzer & A. Bygholm:

Attending Unintended Transformations of Health Care Infrastructure. In Journal of Integrated Care Vol. 7, 14 November 2007 – ISSN 1568-4156 – <http://www.ijic.org/>

6. Tuesday 27th October, 2-4 pm

In this session we focus on Design Based Research as an approach to design and evaluation of information systems

Design Based Research

Literature:

Allan Collins , Diana Joseph & Katerine Bielaczyc (2004) Design Research: Theoretical and Methodological Issues, Journal of the Learning Sciences, 13:1, 15-42, DOI: 10.1207/s15327809jls1301_2

http://dx.doi.org/10.1207/s15327809jls1301_2

Katherine L. Dix: DBRIEF: A research paradigm for ICT adoption. In *International Education Journal*, 2007, 8(2), 113-124.

Sasha Barab & Kurt Squire : Design-Based Research: Putting a Stake in the Ground. In THE JOURNAL OF THE LEARNING SCIENCES, 13(1), 1–14, 2004.

7. Tuesday 3th November, 2-4

Focus in the session is the students thesis synopsis.

Discussions/feed-back on Thesis synopsis ... and evaluation of course

Assessment of Course

Active participation, reading, presenting, discussing + handing in a written assignment (the thesis synopsis).
Deadline for the written assignment is **1.12.2015**

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 during this semester. The student/s will choose the topic, and the submission deadline will be set by the Study Board.

The written assignment may be prepared in groups of up to three students. 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 element on which the examination is based is equivalent to 5 ECTS.