

**REGULATIONS AND CURRICULUM FOR  
THE MASTER'S PROGRAMME IN  
HUMAN CENTERED INFORMATICS**

**FACULTY OF HUMANITIES  
AALBORG UNIVERSITY**

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(Translated from Danish)

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**REGULATIONS AND CURRICULUM FOR  
THE MASTER'S PROGRAMME IN HUMAN CENTERED INFORMATICS  
AT AALBORG UNIVERSITY**

In pursuance of Act No. 367 of 25 March 2013 on Universities (the University Act) with subsequent amendments the following regulations and curriculum are stipulated for the Master's Programme in Human Centered Informatics at Aalborg University.

**PART 1**  
**PRELIMINARY REGULATIONS**

Section 1 Legal Framework

The Master's Programme in Human Centered Informatics has been planned in accordance with the Ministry of Higher Education and Science's Ministerial Order No. 1520 of 16 December 2013 on Bachelor and Master's programmes at Universities (the Ministerial Order on the Study Programmes) and Ministerial Order No. 1518 of 16 December 2013 on University Examinations and Grading (the Examination Order). Additional information is available in the Grading Scale Order and in the Admission Order.

Section 2 Faculty Affiliation

The Master's Programme in Human Centered Informatics belongs under the Faculty of Humanities.

Section 3 Study Board Affiliation

The Master's Programme in Human Centered Informatics belongs under the Study Board of Humanistic Informatics.

**PART 2**  
**OBJECTIVES, DURATION, STRUCTURE, ETC.**

Section 4 Programme Objectives

The Master's Programme in Human Centered Informatics is a research based experimental full-time programme that provides students with a basis for the execution of professional work functions and qualifies for admission to PhD studies.

### Subsection 2

The overall objective of the Master's Programme in Human Centered Informatics is to educate graduates who are capable of adapting and developing ICT solutions that have been considered in relation to a wide spectrum of solutions and variables, including their adaptation to users and the organisational contexts into which they will enter. The Master's Programme in Human Centered Informatics builds on and supplements the knowledge and skills that students have acquired in the course of the preceding bachelor education. The object of study for Human Centered Informatics is ICT systems, their theoretical basis and their integration in human and organisational practices. Particular emphasis is given to communication, learning and knowledge processes in relation to ICT.

### Subsection 3

Students become co-creators of their own academic profiles by following their particular interests within the field of human centered informatics in the following ways: by choosing elective courses from a wide range of options on the 7<sup>th</sup> and 8<sup>th</sup> semesters; by choosing specific problem formulations, theories and methods within the thematic frame in the project modules on the 7<sup>th</sup> and 8<sup>th</sup> semesters; by choosing a practice oriented course and focus for the project report on the 9<sup>th</sup> semester; and by choosing the focus of their Master's thesis on the 10<sup>th</sup> semester.

### Subsection 4

#### Objectives

Through the Master's Programme in Human Centered Informatics, students will acquire:

#### **Knowledge of:**

- theory and method at the highest international level as regards the understanding of human practice in relation to the use of ICT
- theory and method at the highest international level as regards the development and design of ICT
- theory and method as regards categorisation and formalisation in relation to the design of ICT
- theory, methods and concrete ICT based tools for ICT based data collection and analysis
- theory, methods and concrete ICT based tools for managing learning, knowledge and other types of content through ICT systems
- theory of science related to the discipline
- the correlation between the theory of science related to the discipline, scientific method and choice of theory in scientific studies within the field of informatics; on this basis they will be able to reflect on the knowledge of the discipline and identify scientific issues
- the competence requirements of the discipline in relation to professional work.

### Subsection 5

Through the Master's Programme in Human Centered Informatics, students will acquire:

#### **Skills in:**

- assessing, choosing and applying relevant strategies, methods and ICT based tools for collecting, processing and handling data in order to identify human practice in relation to the usage and development of ICT
- assessing, choosing and applying relevant strategies and methods for developing ICT to and with specific user groups
- using formal models for developing and communicating system development and system design
- developing and applying new methods for examining human practice in relation to the usage and development of ICT
- communicating knowledge and solutions founded in the field of informatics, including research, development and design results to peers and laymen
- engaging in critical dialogue on research, development and design results with peers and laypeople
- working in practice with a basis in the field of informatics, including being capable of identifying research and development needs on the basis of the theory and methods of the discipline
- organising and undertaking scientifically based studies on the basis of informatics.

### Subsection 6

Through the Master's Programme in Human Centered Informatics, students will acquire:

#### **Competences in:**

- managing complex and unpredictable work, research and development situations that require new solutions within the field of informatics as regards the study of human practice in relation to ICT and the development of ICT
- independently initiating and engaging in disciplinary and interdisciplinary collaboration on studying human practice in relation to ICT and the development of ICT, with a professional approach

- working independently and engaging in disciplinary and interdisciplinary collaboration on the planning of informatics-related studies and research projects, with a professional approach
- taking an analytical, reflective and critical approach to the study of human practice in relation to ICT and the development of ICT
- taking an analytical, reflective and critical approach to ICT tools for data collection and analysis as well as managing learning, knowledge and other content
- identifying own learning needs and structuring own learning on the basis of problem based learning (PBL) and other types of learning in relation to the field of informatics.

### Section 5 Duration, structure etc.

The duration of the Master's Programme in Human Centered Informatics is two years, equivalent to 120 ECTS credits.

#### Subsection 2

The Master's programme spans four semesters (7<sup>th</sup> to 10<sup>th</sup> semester). Students become co-creators of their own academic profiles by following their particular interests within the field of human centered informatics in the following ways: by choosing elective courses from a wide range of options on the 7<sup>th</sup> and 8<sup>th</sup> semesters; by choosing specific problem formulations, theory and method within the thematic frame in the project modules on the 7<sup>th</sup> and 8<sup>th</sup> semesters; by choosing a practice oriented course and focus for the project report on the 9<sup>th</sup> semester; and by choosing the focus of their Master's thesis on the 10<sup>th</sup> semester. The programme may include a study placement abroad.

#### Subsection 3

On completion of the Master's programme, the student is awarded the degree *cand.mag. (candidatus/candidata magistrii) i Informationsvidenskab*. In English, the title translates into *Master of Arts (MA) in Human Centered Informatics*.

### Section 6 Admission requirements and conditions

Admission to the Master's Programme in Human Centered Informatics is reserved for students who have completed a bachelor degree in Human Centered Informatics or another relevant bachelor degree or professional bachelor degree. A relevant bachelor degree is defined as a degree from a bachelor programme whose central subject areas ensure competence to an extent equivalent to not less than 45 ECTS points within the disciplinary area of human centered informatics (communication theory, philosophy of science and epistemology, ICT, learning and organisational theory, programming methods, design and human-computer interaction).

The Bachelor Programme in Humanistic Informatics from Aalborg University will provide access for students to be admitted to the Master's Programme in Human Centered Informatics.

The following bachelor programmes from Aalborg University may provide access for students to be admitted to the Master's Programme in Human Centered Informatics: Informatics; Medialogy; and IT.

The following bachelor programmes from other universities may provide access for students to be admitted to the Master's Programme in Human Centered Informatics: Information Science; and Information Science and Cultural Dissemination.

The following professional bachelor programmes may provide access for students to be admitted to the Master's Programme in Human Centered Informatics: Web Development; and E-concept Development.

### Subsection 2

Applicants who do not fulfil the conditions stipulated in subsection 1 may be accepted on condition that the Study Board considers that the applicant possesses comparable educational qualifications, on the basis of an assessment of the case in question. In such cases, the Study Board may call in the applicant for an interview.

For further information, visit [www.uddannelsestjekker.aau.dk](http://www.uddannelsestjekker.aau.dk) (only available in Danish)

### Subsection 3

This programme will be conducted in English. A further condition is that both Danish and English speaking applicants must have English at B-level as a no less than or have passed an English-language test of the equivalent competence level approved by the University.

## Section 7 General examination provisions

In the assessment of examinations, grades from the 7-point grading scale or a pass/fail grade will be awarded.

### Subsection 2

Examinations will be either internal or external. If no other provisions are stated, examinations will be assessed by the examiner and a second internal or external examiner.

### Subsection 3

Projects, theme studies etc., may be prepared in collaboration by groups of up to six students. Master's theses may be prepared in collaboration by groups of up to three students. In the examination of projects, theme studies etc., the following examination format will normally apply:

A **project examination** on the basis the written work, whether this was written individually or in collaboration with others. The project report/written work will be considered the shared responsibility of the group. Accordingly, students will be examined and assessed on the basis of the entire project report. One combined grade will be awarded for the project report and the oral performance. At oral

group examinations, the examination must be conducted in such a way that individual assessment of each individual student's performance is ensured, cf. the Examination Order, section 4, subsection 2.

The project examination takes the form of a conversation between the examiners and the student(s) on the basis of the project report of the semester.

For further information on project examinations, please visit the Faculty of Humanities' website.

#### Subsection 4

Where rules have been stipulated regarding the volume of written work, one page will correspond to 2400 characters, including spaces. The stipulated number of pages only includes the actual body text of the report; title page, preface, table of contents, bibliography, abstract and appendices will not be calculated. However, notes will be included in the calculation of total pages, whereas illustrations will not be calculated. Total page number must be stated on the title page.

#### Subsection 5

The stipulated time intervals for oral examinations will include voting and announcement of result.

#### Subsection 6

In the assessment of all written work, irrespective of the language in which this is written, students' spelling and writing skills will be considered. The assessment of the language performance will be based on orthographic correctness, academic writing standards and stylistic proficiency. The language performance will always be assessed as an independent dimension in the overall assessment. However, no examination will be awarded an overall pass grade solely on the basis of good language performance; likewise, an examination cannot be assessed as failed solely on the basis of a poor language performance.

#### Subsection 7

Students who wish to register for the Master's thesis examination must have successfully completed all previous examinations, including examinations of electives.

#### Subsection 8

The study elements on which the individual examinations are based are rated as proportions of an annual full-time equivalent, this being calculated as the annual work of full-time student, including holidays. An annual full-time equivalent is 60 ECTS.

#### Subsection 9

In order for a student to graduate from the programme, each examination must be passed with a no less than grade of 02 or a 'pass' grade. A weighted average will be calculated for the examinations assessed according to the 7-point scale, on the basis of the ECTS weight of each individual examination. So the average is defined as the sum of individual grades, each multiplied by the ECTS of the examination in question, divided by the sum of the ECTS-points of the examinations included in the average.

Examinations assessed as pass/fail will not be included in this calculation. The average grade with one decimal digit will be stated on the examination certificate.

### **PART 3**

#### **PROGRAMME STRUCTURE, CONTENTS AND EXAMINATIONS**

##### Section 8 Programme structure

The Master's Programme in Human Centered Informatics is compiled of modules and structured as a problem based and project organised study programme consisting of obligatory project modules, obligatory study subject modules and the obligatory Master's thesis. In addition, the programme comprises two elective modules.

##### ***Obligatory modules, with certain options cf. section 8, subsections 2 and 3.***

Professional inquiry	7 <sup>th</sup> semester	5 ECTS
User Practice, User Analysis and Pilot Studies (project module)	7 <sup>th</sup> semester	15 ECTS
ICT based Data Collection and Analysis (study subject module)	7 <sup>th</sup> semester	5 ECTS
Development and Design of ICT (project module)	8 <sup>th</sup> semester	20 ECTS
ICT for Learning, Knowledge and Content Management (study subject module)	8 <sup>th</sup> semester	5 ECTS
Human Centered Informatics in Practice (project module)	9 <sup>th</sup> semester	25 ECTS
Research Methodology (study subject module)	9 <sup>th</sup> semester	5 ECTS
Master's Thesis	10 <sup>th</sup> semester	30 ECTS

##### ***Elective modules, of which students must select two\****

Elective course A	7 <sup>th</sup> semester	5 ECTS
Elective course B	8 <sup>th</sup> semester	5 ECTS

\*Students may choose electives offered by the Study Board of Humanistic Informatics (see the appendix Elective modules for Master's programmes under the Study Board of Humanistic Informatics), or apply to the Study Board for permission to substitute one or both of the elective modules with electives offered by other study boards at Aalborg University or other universities. Under all circumstances, elective modules must always represent a total of 10 ECTS credits. The elective modules listed are offered as determined by the Study Board. This means that not all elective modules will be offered every year.

##### Subsection 2

The 7<sup>th</sup> semester of the programme comprises a 5 ECTS credits module in “Professional Inquiry”, a project module of 20 ECTS credits in “User Practice, User Analysis and Pilot Studies”, a 5 ECTS credits study subject module “ICT Based Data Collection and Analysis” and a 5 ECTS credits elective module.

### Subsection 3

The 8<sup>th</sup> semester of the programme comprises a project module of 20 ECTS credits in “Development and Design of ICT”, a 5 ECTS credits study subject module “ICT for Learning, Knowledge and Content Management” and a 5 ECTS credits elective module.

### Subsection 4

The 9<sup>th</sup> semester of the programme comprises a project module of 25 ECTS credits in “Human Centered Informatics in Practice”, and a 5 ECTS credits study subject module “Research Methodology”.

### Subsection 5

In the 10<sup>th</sup> semester of the programme, the student will, under supervision, prepare a Master’s thesis within the disciplinary area of the programme.

### Section 9 The module “Professional Inquiry”

Location of module: 7<sup>th</sup> semester

Credits: 5 ECTS

The module comprises the development and phrasing of empirical inquiry for the purpose of enabling students to formulate research questions and scientific problems within the field of informatics. This will form the basis of the problem based project work and inquiries to be carried out during the course of the informatics study programme.

### Objectives:

In this module students will acquire:

Knowledge of:

- the connections and differences between empirical inquiry and research questions based on informatics
- the connection between research questions and the theory of science in the organisation of scientific research
- theory of science within the field of informatics

Skills in:

- describing empirical inquiry
- translating empirical inquiry into a scientific research question within the field of informatics
- combining a scientific research question with the theoretical basis of its investigation.

Competences in:

- preparing scientific research based on personal enquiry
- taking a reflective approach to the basis of scientific inquiry
- engaging in disciplinary collaboration on scientific problem formulation

The module is completed on the 7<sup>th</sup> semester by passing the following examination:

### **Examination 1**

An internal written examination in English in **“Professional Inquiry”**

The examination is a seven-day take-home assignment on a set topic. Evaluation: pass/fail.

The assignment paper must demonstrate that the student fulfils the objectives for the module stated above.

Alternatively, the examination may be completed by satisfactory and active participation in the module, i.e. a minimum of 80% attendance and completion of set tasks.

### **Section 10 The module “User Practice, User Analysis and Pilot Studies”**

Location of module: 7<sup>th</sup> semester

Credits: 15 ECTS

Through the module, students will acquire knowledge, skills and competences in relation to the areas of user analysis and pilot studies with particular emphasis on user analysis and pilot studies in relation to the development of ICT for supporting work, knowledge and learning processes.

The module will introduce students to user analysis, user-system interaction and pilot studies within the fields of ICT innovation, design and development, which are areas of core competence within the field of informatics. This includes acquisition and application of knowledge on digital practice, organisational culture, digital culture and cognitive, conative and emotive aspects of the undertaking of user analyses and pilot studies with a view to qualifying operational processes and organisational change.

The module comprises teaching within the following areas:

- user practice, user analysis and pilot studies – theory of science and theory
- data collection and analysis methods
- user practice, user analysis and pilot studies in specific domains

Academic supervision will be offered in connection with the problem oriented project work.

Objectives:

In this module students will acquire:

Knowledge of:

- theory of science, theory and methods as regards the understanding of human practice and more specifically user practice in relation to technology use at the highest international level
- digital culture and practice, cultural and social phenomena related to ICT use
- cognitive, conative and emotive aspects of ICT use
- the structuring of user analyses and pilot studies directed towards various domains and processes within work life, learning and knowledge sharing.

Skills in:

- assessing strategies and methods for user analyses and pilot studies on the basis of the needs of the study and knowledge of the disciplinary theories and methods.
- choosing suitable strategies and methods for user analyses and pilot studies directed towards various domains
- data collection and analysis as regards user analysis and pilot studies
- communicating user analyses and pilot studies to peers and others.

Competences in:

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

The module is completed on the 7<sup>th</sup> semester by passing the following examination:

### **Examination 2**

An external oral examination in: **“User Practice, User Analysis and Pilot Studies”**.

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.

The project report: the 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.

Credits: 15 ECTS.

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.

#### Section 11 The module "ICT Based Data Collection and Analysis"

Location of module: 7<sup>th</sup> semester

Credits: 5 ECTS

The module will introduce students to ICT based data collection and analysis offering a number of opportunities to obtain vast amounts of data on the use of for example Web based ICT solutions with relative ease. These opportunities call for fundamental consideration of options and problems, including ethical concerns on the significance of the potentially extensive mappings of individual user behaviour. During the course of the module, students will engage in ICT based data collection and analysis for the support of ICT user analyses and pilot projects.

The module comprises courses and exercises within the following areas:

- theory and method within ICT based data collection and analysis
- tools for ICT based data collection and analysis

#### Objectives:

In this module students will acquire:

Knowledge of:

- theories and methods at the highest international level as regards qualitative and quantitative oriented data collection and analysis in relation to user analyses and pilot studies
- ICT systems for data collection and analysis in relation to user analyses and pilot studies
- principles, including ethical principles, for managing ICT systems for data collection and analysis in relation to user analyses and pilot studies.

Skills in:

- assessing and selecting a method for qualitative and quantitative oriented data collection and analysis in relation to user analyses and pilot studies
- selecting, configuring and adapting ICT systems for qualitative and quantitative oriented data collection and analysis in relation to user analyses and pilot studies
- communicating methods for ICT based data collection and analysis to peers and laymen
- communicating results on ICT based data collection and analysis to peers and laymen.

Competences in:

- taking an analytical, reflective and critical approach to qualitative and quantitative oriented data collection and analysis in relation to user analyses and pilot studies
- engaging in interdisciplinary collaboration on ICT based data collection and analysis in relation to user analyses and pilot studies
- identifying own learning needs and structuring own learning in relation to the subject area of ICT based data collection and analysis in relation to user analyses and pilot studies.

The module is completed on the 7<sup>th</sup> semester by passing the following examination:

### **Examination 3**

An internal written examination in English in **“ICT Based Data Collection and Analysis”**.

The examination is a seven-day take-home assignment on a set topic. On the basis of the module, students will respond to one or a number of questions and assignments within the subject area of the module. The assignment paper must not exceed ten pages, and it must be prepared individually.

Evaluation: Grading according to the 7-point scale.

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

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.

### Section 12 The module “Elective Course A”

(See the appendix “Elective modules for Master’s programmes under the Study Board of Humanistic Informatics”).

### Section 13 The module “Development and Design of ICT”

Location of module: 8<sup>th</sup> semester

Credits: 20 ECTS

The module will introduce students to design of ICT directed towards organisational practice or another professional practice as an additional core activity in the practice field of informatics.

The module comprises teaching within the following areas:

- system design with particular emphasis on information architecture and interaction design
- user-driven system development and system development methods in theory and practice
- formal models for preparing and communicating design solutions (for example blueprints, UML etc.)
- information theory and understanding of information with a view to reflecting on the scientific theoretical basis of design work.

Academic supervision will be offered in connection with the problem oriented project work.

#### Objectives:

In this module students will acquire:

Knowledge of:

- the theory of science, theory and methods of system development
- user-driven techniques and tools
- organisational change and organisational culture in relation to system development and system design pertaining to ICT
- information architecture and usability
- formalisation and categorisation as regards formal models for the preparation, visualisation and communication of design solutions.

Skills in:

- assessing strategies and methods for system development and system design on the basis of user needs and/or customer needs and knowledge of the disciplinary theories and methods.
- choosing suitable strategies and methods for system development and system design directed towards various domains
- data collection and analysis as regards system development and system design
- applying formal models for the preparation and communication of system development and system design
- communicating system development and system design to peers and others.

Competences in:

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

The module is completed on the 8<sup>th</sup> semester by passing the following examination:

#### **Examination 4**

An external oral examination in: **“Development and Design of ICT”**

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.

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.

Credits: 20 ECTS.

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.

Section 14 The module “ICT for Learning, Knowledge and Content Management”

Location of module: 8<sup>th</sup> semester

Credits: 5 ECTS

The module will introduce students to the management and adaptation of systems for learning, knowledge and content management in order to enable students to act independently when needing to adapt systems, implement prototypes and implement more complete solutions on the basis of the adaptation and combination of components.

The module comprises courses and exercises within the following areas:

- systems for learning, knowledge and content management
- use and adaptation of systems for learning, knowledge and content management.

Objectives:

In this module students will acquire:

Knowledge of:

- theory and methods at the highest international level as regards ICT systems for learning, knowledge and content management
- ICT systems for learning, knowledge and content management

Skills in:

- assessing, selecting and applying methods for learning, knowledge and content management
- selecting, configuring and adapting ICT systems for learning, knowledge and content management
- communicating methods and solutions for ICT for learning, knowledge and content management to peers and others.

Competences in:

- taking an analytical, reflective and critical approach to selecting, adapting and applying ICT systems for learning, knowledge and content management
- engaging in interdisciplinary collaboration on selecting, adapting and applying ICT systems for learning, knowledge and content management
- identifying own learning needs and structuring own learning in relation to selecting, adapting and applying ICT systems for learning, knowledge and content management.

The module is completed on the 8<sup>th</sup> semester by passing the following examination:

**Examination 5**

An internal written examination in English in **“ICT for Learning, Knowledge and Content Management”**

The examination is a seven-day take-home assignment on a set topic. On the basis of the module, students will respond to one or a number of questions and assignments within the subject area of the module. The assignment paper must not exceed ten pages, and it must be prepared individually.

Evaluation: Grading according to the 7-point scale.

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

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.

#### Section 15 The module "Elective Course B"

(See the appendix "Elective modules for Master's programmes under the Study Board of Humanistic Informatics").

#### Section 16 The module "Human Centered Informatics in Practice"

Location of module: 9<sup>th</sup> semester

Credits: 25 ECTS

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.

The module is completed on the 9<sup>th</sup> semester by passing the following examination:

**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.

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.

Credits: 25 ECTS

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.

#### Section 17 The module "Research Methodology"

Location of module: 9<sup>th</sup> semester

Credits: 5 ECTS

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

#### 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.

The module is completed on the 9<sup>th</sup> semester by passing the following 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 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 elements on which the examination is based is equivalent to 5 ECTS.

Section 18 The module “Master’s Thesis”

Location of module: 10<sup>th</sup> semester

Credits: 30 ECTS

The Master’s thesis module comprises preparation of a Master’s thesis on a subject which the student is free to select from within the disciplinary framework of the programme. The thesis may be written as either a theoretically, methodologically or analytically oriented thesis, or it may be oriented towards practical and constructive ICT solutions on the basis of theory and method.

The topic of the Master’s thesis must be approved by the Study Board. The topic must be presented to the Study Board in the shape of a synopsis comprising a preliminary problem formulation, argumentation for the relevance of the topic and for the theoretical and methodological points of departure, a preliminary bibliography and time schedule, including a submission deadline.

The module includes a number of thesis seminars. Additionally, students will be offered expert thesis supervision in relation with their problem oriented thesis work.

Objectives:

In the Master’s thesis module, the student will acquire:

Knowledge of:

- the theories, methods and technologies of the selected subject area at the highest international level
- research ethics and understanding of the implications of research work
- the theory of science of the selected thesis topic

Skills in:

- applying methods, theories and technologies pertaining to a specific issue within the academic area
- creating an independent and systematic overview of relevant existing knowledge within the topic of the thesis
- independently selecting approaches pertaining to the topic of the thesis on the basis of theory of science, theory, methods, analysis, design and/or technology, and substantiating these academic choices and priorities
- applying, further developing and critically reflecting on relevant theories, methods and technologies pertaining to the topic of the thesis

Competences in:

- critical reflection on the disciplinary area pertaining to the chosen topic of the thesis

- independent and systematic search for knowledge, choosing and explaining this choice and planning and undertaking the research of the topic of the thesis
- arguing for choices as regards the applied theories, methods and technologies as well as choices as regards any empirical material and/or design aspects
- structuring and communicating the acquired knowledge in a suitable manner as regards content and language register to an academic audience within the disciplinary field of the programme.

The module is completed on the 10<sup>th</sup> semester by passing the following examination:

### **Examination 8**

An external oral examination in: **“Master’s Thesis”**

The examination will be conducted as a conversation between the student(s) and the examiner and external examiner on the basis of a Master’s thesis prepared by one or a number of students. The Master’s thesis will be considered the shared responsibility of the group. The Master’s thesis and the conversation must demonstrate that each student fulfils the objectives for the module stated above as regards knowledge, skills and competences.

The Master’s thesis, including a one-two page summary in a foreign language (see below), forms the basis of the examination and assessment, and a combined grade will be awarded for the Master’s thesis and the oral performance.

Summary: A summary of no less than one page and no more than two pages in Danish or English must be included.

Total number of pages: The Master’s thesis must comprise no less than 35 pages, and must not exceed 70 pages per student, or 80 pages if prepared individually.

Normal duration of examination: 45 minutes; if two students, 75 minutes; and if three students, 100 minutes.

Evaluation: grading according to the 7-point scale.

Credits: 30 ECTS

The examination must substantiate that each student fulfils the objectives for the module.

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 objectives for the subject exhaustively or with only few insignificant omissions.

### Section 19 Overview of obligatory examinations

No.	Title	Internal pass/fail	Internal 7-point scale	External pass/fail	External 7-point scale
1	Professional Inquiry	5 ECTS			
2	7 <sup>th</sup> semester project module (User Practice, User Analysis and Pilot Studies)				15 ECTS
3	7 <sup>th</sup> semester study subject module (ICT based Data Collection and Analysis)		5 ECTS		
4	8 <sup>th</sup> semester project module (Development and Design of ICT)				20 ECTS
5	8 <sup>th</sup> semester study subject module (ICT for Learning, Knowledge and Content Management)		5 ECTS		
6	9 <sup>th</sup> semester project module (Human Centered Informatics in Practice)		25 ECTS		
7	9 <sup>th</sup> semester study subject module (Research Methodology)	5 ECTS			
8	10 <sup>th</sup> semester (Master's Thesis)				30 ECTS

### Section 20 Overview of examinations in elective courses

Title	Internal pass/fail	Internal 7-point scale	External pass/fail	External 7-point scale
7 <sup>th</sup> semester elective course A	5 ECTS			
8 <sup>th</sup> semester elective course B	5 ECTS			

### Section 21 Re-examination

Provisions concerning re-examination outside ordinary examination periods are stipulated in the examination regulations in force at the time in question, which can be studied on the website of the Faculty of Humanities.

## **PART 4** **OTHER PROVISIONS**

### Section 22 Exemptions

In exceptional circumstances, the Study Board of Humanistic Informatics may make exceptions from the rules in these regulations which were stipulated autonomously by the university.

### Section 23 Further information

The Study Board displays and maintains more detailed information on the programme, including examination, on its website.

### Section 24 Commencement

These regulations were recommended by the Study Board of Humanistic Informatics and approved by the dean. The regulations will take effect from 1 September 2014 and apply to all students who commence Master's studies on or after this date.

#### Subsection 2

Previous regulations will apply to students who have commenced their studies before 1 September 2014.

The Study Board of Humanistic Informatics and/or the Faculty of Humanities will determine when the last examinations will be held in accordance with these regulations.