

# CURRICULUM FOR THE MASTER'S PROGRAMME IN SERVICE SYSTEMS DESIGN, 2012

MASTER OF SCIENCE (MSC) COPENHAGEN

Link to this studyline

Curriculum for the Master's programme in Service Systems Design, 2012

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Curriculum for the Master's Programme in Service Systems Design, 2017

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### § 1: PREFACE

Pursuant to Act 695 of June 22, 2011 on Universities (the University Act) with subsequent changes, the following curriculum for the Master's programme in Service Systems Design is stipulated. The programme also follows the Framework Provisions and the Examination Policies and Procedures for the Faculty of Engineering and Science and The Faculty of Medicine.

### § 2: BASIS IN MINISTERIAL ORDERS

The Master's programme is organized in accordance with the Ministry of Science's Ministerial Order no. 814 of June 29, 2010 on Bachelor's and Master's Programs at Universities (the Ministerial Order of the Study Programs) and Ministerial Order on University Examinations (the Examination Order) with subsequent changes. Further reference is made to the Admission Order and the Grading Scale Order with subsequent changes.

### § 3: CAMPUS

The programme is offered in Copenhagen.

### § 4: FACULTY AFFILIATION

The Master's programme falls under the Faculty of Engineering and Science, Aalborg University.

### § 5: STUDY BOARD AFFILIATION

The Master's programme falls under Study Board of Media Technology

### § 6: AFFILIATION TO CORPS OF EXTERNAL EXAMINERS

The Master's programme is associated with the external examiners corps on Nationwide engineering examiners/Design

### § 7: ADMISSION REQUIREMENTS

Admission to the Master's programme in Service Systems Design requires a Bachelor's degree in Industrial Design, Media Technology, Interaction Design, Art and Technology, IT Communication and New Media or similar.

Students with another Bachelor's degree, upon application to the Board of Studies, will be admitted after a specific academic assessment if the applicant is deemed to have comparable educational prerequisites. The University can stipulate requirements concerning conducting additional exams prior to the start of study.

### § 8: THE PROGRAMME TITLE IN DANISH AND ENGLISH

The Master's programme entitles the graduate to the Danish designation Cand.scient. i service system design. The English designation is: Master of Science (MSc) in Service Systems Design.

### § 9: PROGRAMME SPECIFICATIONS IN ECTS CREDITS

The Master's programme is a 2-year, research-based, full-time study programme. The programme is set to 120 ECTS credits.

## § 10: RULES CONCERNING CREDIT TRANSFER (MERIT), INCLUDING THE POSSIBILITY FOR CHOICE OF MODULES THAT ARE PART OF ANOTHER PROGRAMME AT A UNIVERSITY IN DENMARK OR ABROAD

The Study Board can approve successfully completed (passed) programme elements from other Master's programmes in lieu of programme elements in this programme (credit transfer). The Study Board can also approve successfully completed (passed) programme elements from another Danish programme or a programme outside of Denmark at the same level in lieu of programme elements within this curriculum. Decisions on credit transfer are made by the Study Board based on an academic assessment. See the Joint Programme Regulations for the rules on credit transfer.

### § 11: EXEMPTIONS

In exceptional circumstances, the Study Board study can grant exemption from those parts of the curriculum that are not stipulated by law or ministerial order. Exemption regarding an examination applies to the immediate examination.

### § 12: RULES FOR EXAMINATIONS

The rules for examinations are stated in the Examination Policies and Procedures - published at this website: <a href="https://www.studieservice.aau.dk/Studielegalitet/">https://www.studieservice.aau.dk/Studielegalitet/</a>

### § 13: RULES CONCERNING WRITTEN WORK, INCLUDING THE MASTER'S THESIS

In the assessment of all written work, regardless of the language it is written in, weight is also given to the student's formulation and spelling ability, in addition to the academic content. Orthographic and grammatical correctness as well as stylistic proficiency are taken as a basis for the evaluation of language performance. Language performance must always be included as an independent dimension of the total evaluation. However, no examination can be assessed as 'Pass' on the basis of good language performance alone; similarly, an examination normally cannot be assessed as 'Fail' on the basis of poor language performance alone.

The Study Board can grant exemption from this in special cases (e.g., dyslexia or a native language other than Danish).

The Master's Thesis must include an English summary (or another foreign language: French, Spanish or German upon approval by the Study Board). If the project is written in English, the summary must be in Danish (The Study Board can grant exemption from this). The summary must be at least 1 page and not more than 2 pages (this is not included in any fixed minimum and maximum number of pages per student). The summary is included in the evaluation of the project as a whole

### § 14: REQUIREMENTS REGARDING THE READING OF TEXTS IN A FOREIGN LANGUAGE

It is assumed that the student can read academic texts in his or her native language as well as in English and use reference works etc. in other European languages.

### § 15: COMPETENCE PROFILE ON THE DIPLOMA

The following competence profile will appear on the diploma:

A Candidatus graduate has the following competency profile:

A Candidatus graduate has competencies that have been acquired via a course of study that has taken place in a research environment.

A Candidatus graduate is qualified for employment on the labour market based on his or her academic discipline as well as for further research (PhD programmes). A Candidatus graduate has, compared to a Bachelor, developed his or her academic knowledge and independence so as to be able to apply scientific theory and method on an independent basis within both an academic and a professional context.

### § 16: COMPETENCE PROFILE OF THE PROGRAMME

### The graduate of the Master's programme

### Knowledge

- Has knowledge about the fundamental elements of programming, how and when those are relevant and should be used in the development of services
- Understands user—oriented methods and the way this knowledge can be used to approach, segment and profile users in order to define value and business proposition in a design project
- Understands issues related to interaction in relation to given products, context of use and characteristic of users
- Understands the characteristics of services and the way they are organised, developed and represented
- Can understand, reflect upon, and explain the properties of complex distributed systems and the concepts of modularisation and product/service architectures
- Has knowledge about methodological approaches to the analysis and interpretation of users, as well as about methods and tools to support users' participation
- Has knowledge about multimodal methods to represent non-functional and non-material characteristics of services in order to support users' involvement and participation in services

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- Can understand and reflect upon the main theoretical issues related to the construction of a service organisation
- Understands and is able to critically reflect upon theories on innovation and business models
- Has knowledge about relevant issues in research or practice of service design

#### **Skills**

- Can design users' interface to services, with focus on technological, human and context related aspects ( synthesis)
- Is able to apply user and market research and segmentation methods to establish specifications and success criteria
- Is expert in conceptualising and sketching a product or service, emphasising the values and including principles of aesthetics, experience, use, technology and organisation (synthesis)
- Has high capability to **analyse** and address relevant conditions for the interaction between users and the service, taking into account technologies, users and context of use
- Excels in the **application** of design tools and representation techniques to the development of new services and the organisation of the interactions in a service
- Masters user centred service development and can identify modular elements in service system (synthesis)
- Has high capabilities to engage with users and support their participation and involvement in service systems ( synthesis)
- Understands and applies experience-related aspects of services that can support users' participation and co-creation of a service
- Masters and applies appropriate methods and tools to support innovation and change in organisations
- Must be able to interpret, understand and properly address (synthesis) the need and the opportunities for design driven change within organisation.

### Competencies

- Understands the development and organization of aspects related to programming, interaction, design and user participation and co-creation in a service
- Understands and applies appropriate methods for organising functional as well as experiential aspects of design
- Masters the organisation of complex service architectures, defining roles, rules, organisation and user-related aspects (synthesis)
- Understands strategic issues related to change and innovation in organisations, and is able to evaluate the opportunities offered by a design-driven approach
- Understands strategic, organisation and business related aspects of service design and is able to evaluate (synthesis) their relevance in complex organisations
- Can manage work and development situations that are complex, unpredictable and require new solutions ( synthesis)Can independently initiate and implement discipline specific and interdisciplinary coope-ration and assume professional responsibility (synthesis)
- Can independently initiate and implement discipline-specific and interdisciplinary cooperation and assume professional responsibility (**synthesis**)
- Can independently take responsibility for own professional development and specialisation (synthesis)

### § 17: STRUCTURE AND CONTENTS OF THE PROGRAMME

The programme is structured in modules and organized as a problem-based study. A module is a programme element or a group of programme elements, which aims to give students a set of professional skills within a fixed time frame specified in ECTS credits, and concluding with one or more examinations within specific exam periods. Examinations are defined in the curriculum.

The programme is based on a combination of academic, problem-oriented and interdisciplinary approaches and organized based on the following work and evaluation methods that combine skills and reflection

- lectures
- classroom instruction
- project work
- workshops

- exercises (individually and in groups)
- teacher feedback
- reflection
- portfolio work

### § 18: OVERVIEW OF THE PROGRAMME

Offered as: 1 professional								
Offered as: 1-professional Study programme: MSc. in Service Systems Design, 2012								
Module name	Course type	ECT S	Applied grading scale	Evaluation method	Assessment method			
1 SEMESTER The System Around the Product								
The System Around the Product	Project	15	7-point grading scale	Internal examination	Written or oral exam			
User Experience Design for Multi-modal Interaction	Course	5	Passed/Not Passed	Internal examination	Written or oral exam			
Designing Product Service Systems	Course	5	7-point grading scale	Internal examination	Written or oral exam			
1st semester elective courses package Choose 1 course (5 ECTS)	Course	5						
2 SEMESTER  Design of a Distributed Product Service System								
Design of a Distributed Product Service System	Project	15	7-point grading scale	External examination	Written or oral exam			
<u>Distributed Systems</u>	Course	5	Passed/Not Passed	Internal examination	Written or oral exam			
User Participation and Social Innovation	Course	5	Passed/Not Passed	Internal examination	Written or oral exam			
Designing the Experience	Course	5	7-point grading scale	Internal examination	Written or oral exam			
3 SEMESTER  Main project in collaboration with a company / Theoretical elaboration of a topic or a case								
3rd semester elective project package Choose 1 project (20 ECTS)	Project	20						
3rd semester elective courses package Choose 2 courses (10 ECTS)	Course	10						
4 SEMESTER Master's Thesis								
Master's Thesis	Project	30	7-point grading scale	External examination	Written or oral exam			

3rd semester elective project package Choose 1 project (20 ECTS)

Module name	Course type	ECTS	Applied grading scale	Evaluation Method	Assessment method
Project in Collaboration with a Company	Project	20	7-point grading scale	Internal examination	Written or oral exam
Theoretical Elaboration of a Topic or a Case	Project	20	7-point grading scale	Internal examination	Written or oral exam

3rd semester elective courses package Choose 2 courses (10 ECTS)							
Module name	Course type	ECT S	Applied grading scale	Evaluation Method	Assessment method		
System Organization and Industrialization of Services	Course	5	7-point grading scale	Internal examination	Written or oral exam		
Strategies and Business in Services	Course	5	7-point grading scale	Internal examination	Written or oral exam		

#### **Attention**

The 3rd semester elective course package actually consists of the 2 listed courses, PLUS a 5 ECTS elective course offered by the Study Board of Media Technology or by other study boards at Aalborg University. The list of approved elective courses is maintained by the Study Board of Media Technology. Students who wish to follow courses not included in the list of approved elective courses, must apply in writing for approval to the Study Board of Media Technology.

### § 19: ADDITIONAL INFORMATION

The current version of the curriculum is published on the Board of Studies' website, including more detailed information about the programme, including exams.

All students who have not participated in Aalborg University's PBL introductory course during their Bachelor's degree must attend the introductory course "Problem-based Learning and Project Management". The introductory course must be approved before the student can participate in the project exam. For further information, please see the Schools website.

### § 20: COMMENCEMENT AND TRANSITIONAL RULES

The curriculum is approved by the Dean of the Technical Faculty of IT and Design and enters into force as of September 1st, 2012.

In accordance with the Framework Provisions for the Faculty of Engineering and Science and The Faculty of Medicine at Aalborg University, the curriculum must be revised no later than 5 years after its entry into force.

### § 21: AMENDMENTS TO THE CURRICULUM AND REGULATIONS

Minor editorial changes have been made during the digitalization.