

**Curriculum for the  
MSc in Computer Science  
(September 2009)  
(Revised with effect from 1 September 2011)**

The acts and regulations that form the framework for this curriculum are laid down in the following acts and ministerial orders, as well as later amendments to them.

Act no. 754 of 17 June 2010 on Universities (*the University Act*).

Ministerial Order no. 814 of 29 June 2010 on Bachelor's and Master's Programmes at Universities (*the Programme Order*).

Ministerial Order no. 181 of 23 February 2010 on Admission to Bachelor's and Master's Programmes at Universities (*the Admission Order*).

Ministerial Order no. 857 of 1 July 2010 on University Examinations (*the Exam Order*).

Ministerial Order no. 250 of 15 March 2007 on the Grading Scale and Other Forms of Assessment of University Education (*the Grading Scale Order*).

This curriculum has been drafted pursuant to sections 24 of the Programme Order, 27 of the Exam Order, and 19 of the Grading Scale Order.

Those parts of the curriculum not determined by the aforementioned acts and ministerial orders are governed by the rules laid down by the University of Copenhagen and the Faculty of Science at the University of Copenhagen. Some of these rules are described in the Programme Regulations of the Faculty of Science.

The MSc in Computer Science belongs under the Corps of External Examiners for Computer Science. In addition to external examiners from this primary corps, examiners from other corps are brought in for subject elements not covered by the primary corps.

The programme is part of the University of Copenhagen's COME (Copenhagen Masters of Excellence) programme. See the University of Copenhagen website for details.

The Computer Science programme and this curriculum fall under the Board of Studies for Master's Programmes at the Faculty of Science, henceforth referred to as *the Board of Studies*. Students have the right to vote for and run as the Board's student representatives.

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## **§1. Title**

Graduates of the MSc programme are entitled to use the title Master of Science (MSc) in Computer Science.

Graduates with a qualification profile in Computational and Mathematical Modelling (CMM) are entitled to use the title Master of Science (MSc) in Computer Science with Qualification Profile in Computational and Mathematical Modelling.

Graduates with a qualification profile in Digital Interactive Entertainment (DIE) are entitled to use the title Master of Science (MSc) in Computer Science with Qualification Profile in Digital Interactive Entertainment.

Graduates with a qualification profile in Programming Languages and Systems (PLS) are entitled to use the title Master of Science (MSc) in Computer Science with Qualification Profile in Programming Languages and Systems.

Graduates with a qualification profile in Software Development (SD) are entitled to use the title Master of Science (MSc) in Computer Science with Qualification Profile in Software Development.

Graduates with a qualification profile in Computer Science Innovation (CSI) are entitled to use the title Master of Science (MSc) in Computer Science with Qualification Profile in Computer Science Innovation.

Graduates with a qualification profile in Algorithms and Data Structures (ADS) are entitled to use the title Master of Science (MSc) in Computer Science with Qualification Profile in Algorithms and Data Structures.

## **§2. Duration**

The MSc programme is prescribed to 120 ECTS credits, corresponding to two years of full-time study.

(2) The total time taken to complete the programme (excluding any authorised leave of absence) must not exceed three years (36 months).

Please refer to the Faculty's Programme Regulations for details of interim regulations, sanctions and the rules for calculating the duration of study.

### **§3. Objectives and qualification descriptions**

The general competences, skills and knowledge outlined below apply to all graduates. The competences, skills and knowledge outlined under the subject-specific qualification profiles apply to all graduates with the profile concerned.

*Computer science* is concerned with the systematic processing of information, particularly for automatic processing by computers. The concept corresponds to *Informatik* (German) and *informatique* (French).

#### **General qualification description for the MSc in Computer Science**

*Competences:*

Graduates in Computer Science are able to:

- acquire new knowledge in an efficient and systematic manner, and to familiarise themselves with computer-science subject areas at a high scientific level, including the ability to identify and analyse complex computer-science problems in a scientific manner, and to apply computer-science methodology in a systematic manner to devise both theoretical and practical solutions
- acquire an overview of and analyse large volumes of data and complex computer-science contexts
- formulate, structure and run research projects, computer-science development work and other advanced assignments within information technology
- combine relevant computer science and other knowledge in order to analyse a computer-science problem, as well as evaluate previous attempts at solving the same problem and related problems
- critically evaluate and select, combine and if appropriate develop theories and methods, and use these to make a significant contribution to solving computer-science problems or promoting understanding of the problems
- evaluate a computer-science solution to a problem objectively and systematically, and – where appropriate involving experiments – analyse the areas in which the solution is successful and unsuccessful, and identify its weaknesses, strengths and likely outcomes
- document their own research results and discoveries in a manner that meets the requirements for academic publications of international standard
- participate as an independent contributor in computer-science research groups, including international groups
- apply and disseminate knowledge about information technology and participate in general debates on the subject.

*Skills:*

Graduates in Computer Science have acquired the skills to:

- conduct scientific work, including critically analysing and evaluating others' research, and assessing the results of this work in multiple contexts

- programme and use algorithmics in the design of computer systems, and apply mathematical methods to the analysis of data and programmes.

*Knowledge:*

Graduates in Computer Science have acquired knowledge:

- within their area of specialisation at a high scientific level, and in adjacent subject areas at a general scientific level
- of academic literature within their area of specialisation, as well as within several other areas of computer science
- of computer science's academic traditions
- of real-world applications of information technology, e.g. in business, cultural, environmental and other social contexts.

**Qualification description: Computational and Mathematical Modelling (CMM)**

Specific **competences** to:

- analyse, critically evaluate, compare and process complex problems involving data analysis, modelling and simulation of scientific and related conditions
- independently combine existing mathematical models for the analysis and synthesis of discrete data, and manage development situations that require the development of new models and methods.

Specific **skills** in:

- representing and analysing data derived from 'noisy' digitised measurements, e.g. physical observation of signals, images and sequences
- applying, implementing and evaluating mathematical models for analysis, synthesis and simulation
- reporting back on analyses, implementations and evaluations, including explaining the limitations on the use of specific models and choices made during the modelling of a tangible problem
- formulating and evaluating hypotheses that can be tested experimentally, and disseminating, planning for, producing and processing the results of experiments.

Specific **knowledge** of:

- numerical methods for data analysis, modelling and simulation
- optimisation methods for data analysis, modelling and simulation
- statistical methods for data modelling and analysis
- conduct and evaluation of computer-based experiments.

### **Qualification Description: Digital Interactive Entertainment (DIE)**

Specific **competences** to:

- analyse, critically evaluate, compare and process complex problems involving interactive applications, with particular emphasis on entertainment
- independently and in groups, deal with development situations in which existing mathematical and psychological models, as well as experimental hardware, are combined in a new way in order to analyse and synthesise new entertainment products

Specific **skills** in:

- programming as part of a development team capable of producing games or similar interactive entertainment products
- applying, implementing and evaluating mathematical and psychological models for analysis, synthesis and simulation
- reporting back on analyses, implementations and evaluations, including explaining the limitations on the use of specific models and choices made during the modelling of a tangible problem
- formulating and evaluating hypotheses about human use of interactive entertainment systems that can be tested experimentally, including planning for, conducting and disseminating the results of the experiments.

Specific **knowledge** of:

- numerical methods of data analysis, modelling and simulation
- methods of representation and visualisation of virtual worlds
- the organisation of games-development groups, including both the typical roles and special role of the programmer
- factors in the interaction between humans and machines
- conducting and evaluating experiments involving humans.

### **Qualification Description: Programming Languages and Systems (PLS)**

Specific **competences** to:

- construct and verify programmes and programme components based on specifications, including to argue with precision about the programme's correctness, effectiveness, and security
- work systematically with programmes as data objects, particularly in order to construct programmes for the analysis and transformation of other programmes
- design and implement programming and languages and language constructions, especially for use in domain-specific applications.

Specific **skills** in:

- formalising the correct design and meaning of both programmes and programming languages, for the purposes of further analysis and processing

- formulating and providing mathematical proof for relevant properties of programmes and languages
- implementing programming language on modern calculation platforms via appropriate combinations of interpretation and translation
- operationalising logical and mathematical methods based on the development of tools for automated processing of programmes.

Specific **knowledge** of:

- formal languages and computational models, determinability and complexity
- semantics, type systems and the logic of programming languages
- implementation techniques for programming languages, including automated programme analysis and transformation.

### **Qualification Description: Software Development (SD)**

Specific **competences** to:

- design and develop effective, useful and user-friendly software products and information systems in close co-operation with users and other stakeholders
- work systematically with the technical and organisational implementation of new IT solutions in an actual business context
- manage system-development projects.

Specific **skills** in:

- identifying, analysing and specifying user needs and design requirements for new IT solutions
- planning and implementing design and system-development processes in such a way that space is generated for creativity, experiments and learning, and so that the users are actively involved in the process
- analysing the interaction between IT and organisation in order to identify the technical and organisational prerequisites for the successful implementation of new IT solutions
- in co-operation with users and other stakeholders, drawing up plans for the implementation of new IT solutions in order to effectively contribute to realising the desired business and organisational-development processes
- drawing up time and resource plans for small and medium-sized system-development projects
- communicating effectively with users and other stakeholders.

Specific **knowledge** of:

- IT architecture, process models and system-development methods
- human-computer interaction and interaction design
- the interplay between IT and organisational and business development
- technology leadership, processes of change and innovation

- IT project management, including impact analysis, risk analysis and risk management.

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**Qualification description: Computer Science Innovation (CSI)**

**Specific competences to:**

- identify specific development needs and opportunities.
- plan, develop and create viable new computer-based technologies, products and services.

Specific skills to:

- evaluate the need for computer-based innovation, initiate a process, and move innovation forward in an organisation or as a start-up company.
- analyse the interaction between IT and social stakeholders in an organisational context.
- develop and implement innovative IT projects within existing organisations.
- analyse a company's current problems and opportunities, and develop visions for IT-based change.
- identify and analyse user- and market-driven development of sustainable solutions.
- develop business opportunities and assess their commercial potential based on a variety of business models.

Specific knowledge of:

- understanding organisations
- feasibility studies
- business models
- concept development
- generating ideas
- entrepreneurship
- innovation processes

**Qualification description: ALGORITHMS AND DATA STRUCTURES (ADS)**

**Specific competences to:**

- construct, verify, compare and evaluate algorithms in relation to particular questions.
- identify sub-problems in complex questions, for which effective algorithms, data structures and paradigms can be used.

Specific skills to:

- check whether algorithms and data structures are correct.
- argue in favour of time- and space complexity (worst-case scenario, expected).
- decide whether a problem can be solved in polynomial time.
- solve NP-hard optimisation problems by both exact and heuristic methods.
- implement, test and conduct an experimental analysis of algorithms and data structures.

Specific knowledge of:

- fundamental algorithms and data structures.
- formal models for calculation and complexity.
- techniques for proving correctness and complexity.
- general algorithm paradigms (e.g. incremental, divide and rule, dynamic programming, plane sweep; randomised and approximation algorithms).
- selected advanced subjects, e.g. parallel algorithms.
- conducting and evaluating computer-based comparisons of algorithms.

#### **§4. Admission requirements**

Applicants with a Bachelor's degree in Computer Science from the University of Copenhagen, as well as students with a Bachelor's degree in Computer Science from another Danish or Nordic university, may be admitted to the Master's Programme in Computer Science.

Applicants with a Bachelor's degree in Science and IT from the University of Copenhagen may be admitted to the Master's Programme in Computer Science.

(2) Graduates from other Danish or Nordic universities may be admitted to the Master's Programme in Computer Science if they hold a Bachelor's degree in:

- physics
- informatics
- information science
- IT
- mathematics
- software
- software development, or
- technical science.

Applicants with a Bachelor's degree in the above areas may be admitted to the Master's Programme in Computer Science as long as they have passed the following elements as part of their Bachelor's programme or subsequent studies:

- courses within the subject area programming corresponding to min. 15 ECTS credits
- courses within the subject area computer architecture corresponding to min. 7.5 ECTS credits, and
- courses within the subject area computing, discrete mathematics or the subject area linear algebra corresponding to min. 7.5 ECTS credits.

Courses within the subject area programming must include at least two different programming paradigms – one must be imperative or object-oriented, while the other must fall outside of this category.

(3) Applicants with non-Nordic Bachelor's degrees must document English proficiency at the following levels: an IELTS test score of min. 6.5 or a TOEFL test score of min. 213 (computer-based), 550 (paper-based) or 79 (Internet-based).

(4) From 2011, applicants with Nordic Bachelor degrees must have studied English at min. level B at upper secondary school.

(5) In addition, the Faculty may admit applicants who, after a thorough assessment, are deemed to possess educational qualifications equivalent to those required in (2) or (3).

(6) If there are more qualified applicants than there are places available, the first priority will be given to students with a Bachelor's degree in Computer Science from the University of Copenhagen who seek admission to the first intake after graduation, cf. per the Admission Order 14 (1). The second-highest priority will be applicants with Bachelor's degrees in Computer Science from other universities. The third-highest priority will be applicants with a Bachelor's degree in Science and IT from the University of Copenhagen.

Prioritisation will then be made on the basis of the applicants' total ECTS credits in the areas of computer science, mathematics, systems development and technology. Finally, applicants will then be ranked according to grades achieved in the areas concerned.

## **§5. Structure and content**

The programme's compulsory subject elements are determined by which qualification profile is chosen.

If the general profile is chosen, the programme consists of compulsory subject elements, including the thesis, prescribed to 90 ECTS credits, and optional subject elements prescribed to 30 ECTS credits.

If a specialised qualification profile is chosen, the programme consists of compulsory subject elements, including the thesis, prescribed to 105 ECTS credits, and optional subject elements prescribed to 15 ECTS credits.

### **(2) Qualification Profiles**

The Master's Programme in Computer Science consists of the following qualification profiles:

- General profile in computer science
- Qualification Profile: Computational and Mathematical Modelling
- Qualification Profile: Digital Interactive Entertainment
- Qualification Profile: Programming Languages and Systems
- Qualification Profile: Software Development.
- Qualification Profile: Computer Science Innovation

- Qualification Profile: Algorithms and Data Structures

### **(2.1) General profile**

The general profile consists of:

- Compulsory courses:
  - Advanced programming, 7.5 ECTS credits, block 1
  - Principles of computer systems design, 7.5 ECTS credits, block 2
  - Statistical methods for machine learning, 7.5 ECTS credits, block 3
  - Advanced algorithms and data structures, 7.5 ECTS credits, block 4
- Optional courses within the subject area (restricted optional courses), 15 ECTS credits
- Optional courses: 30 ECTS credits
- Thesis, 30 ECTS credits.

(2.1.1.) Approved restricted optional courses:

All MSc courses run by the Department of Computer Science.

The courses are described in the prospectus on SIS. Contingent upon approval by the Dean, all courses may be subject to amendment as per 1 September each year.

### **(2.2) Qualification Profile: Computational and Mathematical Modelling**

The Qualification Profile Computational and Mathematical Modelling consists of:

- Compulsory courses:
  - Advanced programming, 7.5 ECTS credits, block 1
  - Signal and Image Processing, 7.5 ECTS credits, block 1
  - Constrained continuous optimisation, 7.5 ECTS credits, block 1
  - Principles of computer systems design, 7.5 ECTS credits, block 2
  - Computational physics, 7.5 ECTS credits, block 3
  - Statistical methods for machine learning, 7.5 ECTS credits, block 3
  - Advanced algorithms and data structures, 7.5 ECTS credits, block 4
  - Advanced topics in data modelling, 7.5 ECTS credits, block 4
- Optional courses within the subject area (restricted optional courses), 15 ECTS credits
- Optional courses, 15 ECTS credits
- Thesis, 30 ECTS credits.

(2.2.1.) Approved restricted optional courses:

All MSc courses run by the Department of Computer Science.

The courses are described in the prospectus on SIS. Contingent upon approval by the Dean, all courses may be subject to amendment as per 1 September each year.

### **(2.3) Qualification Profile: Digital Interactive Entertainment**

The Qualification Profile in Digital Interactive Entertainment consists of:

- Compulsory courses:
  - Advanced programming, 7.5 ECTS credits, block 1
  - Principles of computer systems design, 7.5 ECTS credits, block 2
  - Statistical methods for machine learning, 7.5 ECTS credits, block 3
  - Advanced algorithms and data structures, 7.5 ECTS credits, block 4
  - DADIU[1], 30 ECTS credits, blocks 1 and 2, academic year 2011–12
- Optional courses within the subject area (restricted optional courses), 15 ECTS credits
- Optional courses, 15 ECTS credits
- Thesis, 30 ECTS credits, blocks 3 and 4

(2.3.1) Approved restricted optional courses:

All MSc courses run by the Department of Computer Science.

The courses are described in the prospectus on SIS. Contingent upon approval by the Dean, all courses may be subject to amendment as per 1 September each year.

### **(2.4) Qualification Profile: Programming Languages and Systems**

The Qualification Profile in Programming Languages and Systems consists of:

- Compulsory courses:
  - Advanced programming, 7.5 ECTS credits, block 1
  - Semantics and types, 7.5 ECTS credits, block 1
  - Principles of computer systems design, 7.5 ECTS credits, block 2
  - Computability and complexity, 7.5 ECTS credits, block 2
  - Statistical methods for machine learning, 7.5 ECTS credits, block 3
  - Advanced language processing, 7.5 ECTS credits, block 3
  - Advanced algorithms and data structures, 7.5 ECTS credits, block 4
  - Topics in programming languages, 7.5 ECTS credits, block 4
- Optional courses within the subject area (restricted optional courses), 15 ECTS credits
- Optional courses, 15 ECTS credits
- Thesis, 30 ECTS credits.

(2.4.1) Approved restricted optional courses:

All MSc courses run by the Department of Computer Science.

The courses are described in the prospectus on SIS. Contingent upon approval by the Dean, all courses may be subject to amendment as per 1 September each year.

## **(2.5) Qualification Profile: Software Development**

The Qualification Profile in Software Development consists of:

- Compulsory courses:
  - Advanced programming, 7.5 ECTS credits, block 1
  - Advanced data management, 7.5 ECTS credits, block 1 (no longer part of profile as of 1 September 2011)
  - Software Design and Software Architecture, 7.5 ECTS credits, block 1
  - Principles of computer systems design, 7.5 ECTS credits, block 2
  - Research methods in human-centred computing 7.5 ECTS credits, block 2
  - Statistical methods for machine learning, 7.5 ECTS credits, block 3
  - Project course: Development studio, 15 ECTS credits, blocks 3 and 4
  - Advanced algorithms and data structures, 7.5 ECTS credits, block 4
- Optional courses within the subject area (restricted optional courses), 15 ECTS credits
- Optional courses, 15 ECTS credits
- Thesis, 30 ECTS credits.

(2.5.1) Approved restricted optional courses:

All MSc courses run by the Department of Computer Science.

The courses are described in the prospectus on SIS. Contingent upon approval by the Dean, all courses may be subject to amendment as per 1 September each year.

## **2.6. Qualification profile Computer Science Innovation**

The qualification profile for Computer Science Innovation consists of:

- General compulsory courses:
  - Advanced Programming, 7.5 ECTS credits, block 1
  - Principles of Computer Systems Design, 7.5 ECTS credits, block 2
  - Statistical Methods for Machine Learning, 7.5 ECTS credits, block 3
  - Advanced Algorithms and Data Structures, 7.5 ECTS credits, block 4
- Profile-specific compulsory courses:
  - IT Innovation and Change, 7.5 ECTS credits, block 1
  - Knowledge-based Entrepreneurship, 7.5 ECTS credits, block 2
  - Project course: Development Studio, 15 ECTS credits, blocks 3 and 4
- Optional courses within the subject area (restricted optional courses), 15 ECTS credits
- Optional courses, 15 ECTS credits
- Thesis, 30 ECTS credits.

(2.6.1.) Approved restricted optional courses:

All MSc courses run by the Department of Computer Science.

The courses are described in the prospectus on SIS. Contingent upon approval by the Dean, all courses may be subject to amendment as per 1 September each year.

## 2.7 Qualification profile Algorithms and Data Structures

The qualification profile Algorithms and Data Structures consists of:

- General compulsory courses:
  - Advanced Programming, 7.5 ECTS credits, block 1
  - Principles of Computer Systems Design, 7.5 ECTS credits, block 2
  - Statistical Methods for Machine Learning, 7.5 ECTS credits, block 3
  - Advanced Algorithms and Data Structures, 7.5 ECTS credits, block 4
  
- Profile-specific compulsory courses:
  - Data Structures: Theory and Practice, 7.5 ECTS credits, block 1
  - Computability and Complexity, 7.5 ECTS credits, block 2
  - Computational Geometry, 7.5 ECTS credits, block 3
  - Topics in Algorithms and Data Structures, 7.5 ECTS credits, block 4
  
- Optional courses within the subject area (restricted optional courses), 15 ECTS credits
- Optional courses, 15 ECTS credits
- Thesis, 30 ECTS credits.

### (2.7.1.) Approved restricted optional courses:

All MSc courses run by the Department of Computer Science.

The courses are described in the prospectus on SIS. Contingent upon approval by the Dean, all courses may be subject to amendment as per 1 September each year.

**(2.8)** The Exam Order stipulates that min. 1/3 of the programme's total ECTS credits must stem from external tests. This criterion is met by the external grading of the thesis and two of the compulsory courses.

The Exam Order stipulates that max. 1/3 of the programme's total ECTS credits must stem from tests graded 'Pass/Fail'. This criterion is met with the aid of the study administrative system (STADS), which does not allow students to enrol on subject elements that would make it impossible to meet the requirements of the Exam Order.

**(3)** *Optional subject elements.* Optional subject elements consist of courses, projects or other subject elements on at least Master's level.

A list of optional subject elements is contained in the current prospectus on SIS (or equivalent).

**(4) Bachelor courses.** Bachelor-level courses may be taken as part of the MSc programme if they contribute to the students' academic and personal development. Bachelor courses can only be approved if they consist of ancillary courses from a subject area other than the core MSc subject and/or constitute a prerequisite for the students' work on their thesis.

Bachelor courses may only account for max. 15 ECTS credits towards the MSc.

Students must apply to the Board of Studies for permission to take Bachelor's courses. The application may include a letter of recommendation from the student's thesis supervisor.

**(5) Other projects (not covered by the prospectus).** Other projects are prescribed to either 7.5 or 15 ECTS credits. However, the Board of Studies may grant exemptions and permit smaller projects by students who need, or will need, fewer than 7.5 ECTS credits to complete their programme.

In addition to projects linked to the Faculty, other projects may include, e.g. assistance with research work and projects in relation to public- and private-sector institutions, organisations and companies.

The combined total of other projects may not exceed 15 ECTS credits.

Students seeking approval for projects not covered by the prospectus must apply to the Board of Studies.

**(6) Credit transfers.** Students may apply to the Board of Studies for approval of subject elements taken at other higher education institutions in Denmark and abroad, and for the credits to be transferred to the MSc programme. They do not need to apply for credit transfers for Master's level subject elements taken at the Faculty of Science if these are to be transferred to the optional component of the MSc programme.

## **§6. Master's Thesis**

The thesis is designed to demonstrate the student's ability to apply scientific theories and methods in their work on a specified subject. The thesis is prescribed to 30 ECTS credits and may be experimental in nature. An experimental thesis involves work related to, for example, implementing software for the purpose of verifying theoretical methodologies and results, and empirical studies based on computer calculations and/or human behaviour in relation to IT systems.

Work on the thesis may begin at four points during the year, coinciding with the beginning of a block, but not before the student has passed tests prescribed to 15 ECTS credits.

Students may also take courses at the same time as they are writing their thesis. However, the final 15 ECTS credits for the thesis must fall within the final block of the two-year MSc programme.

While working on their thesis, students must give at least one presentation, usually on the subject covered by the thesis, before it may be submitted.

**(2) Supervisors.** The thesis supervisor must be a permanent member of staff at the Faculty of Science. Thesis work can be done in other departments at the University of Copenhagen, at another university or a public- or private-sector research institution/company (external institution).

If thesis work is done at an external institution, students are assigned an internal supervisor from one of the Faculty's departments, as well as an external supervisor at the external institution. The internal supervisor reports to the head of department and is responsible for the overall quality of the thesis supervision. The internal supervisor also acts as an internal examiner. The external supervisor co-operates with the internal supervisor to plan work on the thesis and is entitled to attend the examination as an observer.

**(3) Group theses.** Master's theses may be written in groups. Each student's contribution must be clearly identified in order to facilitate individual assessments. The oral defence must follow the guidelines stipulated in both the Exam Order and the Faculty's Programme Regulations.

**(4) Report and examination.** An abstract in both Danish and English must be submitted along with the thesis report. In the final assessment of Danish students, both versions will be taken into account. International students will only be assessed on the basis of the English version.

Papers/published articles may be included as part of the Master's thesis report.

If manuscripts or published articles with several authors are included in the report as appendices, (co-)author declarations that clearly stipulate the extent of the student's contribution must also be submitted.

The thesis process culminates in a two-part individual examination, which consists of writing a thesis report and then presenting an oral defence. The oral defence must be held within six weeks of submission of the thesis report. The grading must take place on the same day as the defence.

The thesis report and the oral examination are assessed together. A single grade is awarded according to the seven-point grading scale (external grading).

The thesis report and its references form the syllabus for the thesis examination.

(5) *The thesis contract.* At the start of the thesis period, students sign a thesis contract with their supervisor, head of studies and head of department. The contract is available on the Faculty homepage. The rules for thesis contracts, for using up examination attempts due to missed deadlines and for exemptions are also published on the Faculty homepage.

## **§7. Examinations**

*Assessment of writing skills.* If the standard of the spelling, formulation and communication is so poor that it makes assessment difficult, up to one whole grade on the scale may be deducted. If the standard makes assessment impossible, the lowest grade on the scale or a 'Fail' is awarded.

(2) *Weighting.* If the examination in a subject element consists of two or more parts, then the weighting of individual parts is stipulated in the prospectus, along with information as to whether all of the parts must be passed individually, whether there are specific grade requirements for the separate parts, and whether all the parts must be taken and passed in the same exam period.

(3) *Grade-point average.* Grade-point averages are not calculated for the MSc programme as a whole.

(4) *Specific test conditions.* If an application is submitted to the Board of Studies at least two months prior to an examination, the Board may issue specific rules for special examination conditions for students who are able to document a need for them, e.g. due to impaired physical or mental functions. These special conditions must not affect the academic level of the exam.

(5) *Resits.* Students who fail examinations have the option to resit in the same examination period. This also applies to students who are prevented from taking an examination due to illness. Please refer to the Faculty's examination regulations on the programme's homepage.

## **§8. Exemptions**

Under special circumstances, the University is empowered to grant exemptions from the rules set by the University in this curriculum.

## **§9. Commencement, etc.**

This curriculum applies to all students enrolled on the programme at the beginning of the academic year 2009–2010 or later.

(2) The curriculum may be amended once a year, in such a way that the changes will take effect from the start of the subsequent new academic year. Amendments must be approved by the Dean.

**(3)** Students enrolled on previous curricula may be transferred to the new one as per the interim regulations, or according to an individual credit-transfer assessment by the Master's programme Board of Studies.

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[\[1\]](#) The National Danish Academy of Digital, Interactive Entertainment – a group of university and art schools throughout Denmark.