



AALBORG UNIVERSITET

CURRICULUM FOR THE PROFESSIONAL MASTER'S PROGRAMME IN DIGITAL HEALTH, 2024

MASTER
AALBORG

[Link to this studyline](#)

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§ 1: PREFACE

Pursuant to consolidation Act 778 of August 7, 2019 on Universities (the University Act), the following is established.

The programme also follows the Examination Policies and Procedures incl. the Joint Programme Regulations for Aalborg University.

§ 2: BASIS IN MINISTERIAL ORDERS

The Professional Master's Degree programme is organised in accordance with the Ministry of Higher Education and Science's Order no. 19 of January 9, 2020 on Professional Master's Degree Programmes, Ministerial Order no. 2272 of December 1, 2021 on Part-time University Programmes (the Part-Time Order) with subsequent change, and Ministerial Order no. 2271 of December 1, 2021 on University Examinations (the Examination Order) with subsequent change. Further reference is made to Ministerial Order no. 1125 of July 4, 2022 (the Grading Scale Order).

§ 3: CAMPUS

The programme is offered in Aalborg.

§ 4: FACULTY AFFILIATION

The Masters's programme falls under The Faculty of Medicine, Aalborg University.

§ 5: STUDY BOARD AFFILIATION

The Master's programme falls under Study Board of Health and Technology.

§ 6: AFFILIATION TO CORPS OF EXTERNAL EXAMINERS

The Master's programme is associated with the external examiners corps on Civil engineering corps of external examiners.

§ 7: ADMISSION REQUIREMENTS

Admission requires that the applicant has completed a relevant qualifying programme.

Relevant qualifying programmes are:

- A relevant Bachelor's degree (e.g. in health technology, computer science, data science and machine learning etc.)
- A relevant professional Bachelor's degree/medium-length higher education (e.g. in nursing, physiotherapy or similar)
- A relevant diploma (e.g. engineering or similar)

Furthermore, admission requires that the applicant has 2 years of relevant work experience after completion of the qualifying programme.

Relevant work experiences include:

- Experience with tasks, use of healthcare IT or development thereof. Emphasis is placed on the applicant's work experience as a whole being relevant to the education.

Finally, admission requires that the applicant has language proficiency in English equivalent to upper secondary B-level. The Study Board may lay down detailed rules for documentation of English proficiency.

Admission may be subject to the possession of additional tests.

The university may admit applicants who do not meet the conditions laid down in paragraph 1 but who, on the basis of a specific assessment, are deemed to have educational qualifications equivalent to this. However, no exemption from the requirement of two years' relevant professional experience may be granted.

§ 8: THE PROGRAMME TITLE IN DANISH AND ENGLISH

The Master's programme entitles the graduate to the Danish designation Master i digitalisering af sundhedsvæsenet. The English designation is: Master of Digital Health.

§ 9: PROGRAMME SPECIFICATIONS IN ECTS CREDITS

The Master's programme is a 2-year, research-based, part-time study programme. The programme is set to 60 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 that passed programme elements from other educational programmes at the same level replaces programme elements within this programme (credit transfer).

Furthermore, the Study Board can, upon application, approve that parts of this programme is completed at another university or a further education institution in Denmark or abroad (pre-approval of credit transfer).

The Study Board's decisions regarding credit transfer are based on an academic assessment.

§ 11: EXEMPTION

The Study Board's possibilities to grant exemption, including exemption to further examination attempts and special examination conditions, are stated in the Examination Policies and Procedures published at this website:

<https://www.studyservice.aau.dk/rules>

§ 12: RULES FOR EXAMINATIONS

The rules for examinations are stated in the Examination Policies and Procedures published at this website:

<https://www.studyservice.aau.dk/rules>

§ 13: RULES CONCERNING WRITTEN WORK

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

The Master's project must include an English summary. If the project is written in English, the summary can be in Danish. 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 English and use reference works, etc., in English and other European languages.

§ 15: COMPETENCE PROFILE ON THE DIPLOMA

A Master has competencies that have been acquired through a course of study based on an integration of research results and practical experience.

A Master is able to fulfil highly qualified functions in business, institutions and the like, through scholarship-based personal and academic competencies.

§ 16: COMPETENCE PROFILE OF THE PROGRAMME

| | |
|---------------------|---|
| <p>Knowledge</p> | <p><u>The field of knowledge</u></p> <p>Must be able to critically relate to knowledge of theory, method and practice based on internationally recognized research within the following relevant aspects of digital health:</p> <ul style="list-style-type: none"> ● Design, development and implementation of digital health ● Health and welfare economic analyses ● Regulations, regulations and requirements for the use of artificial intelligence in healthcare IT ● Machine Learning and Data mining ● Data understanding in relation to opportunities and limitations ● Interoperability and standards ● Decision support in clinical practice ● Innovation practices of health IT ● Types and implementation of digital health systems and technologies <p><u>The level of understanding and reflection</u></p> <p>On a scientific basis, identify, analyse and critically examine theory, scientific methods, issues and practice within the research area of digital health</p> |
| <p>Skills</p> | <p><u>Type of skills</u></p> <ul style="list-style-type: none"> ● Can select and process complex issues in relation to digital health from both a user and a developer perspective using relevant scientific methods and tools, including information gathering and processing ● Can acquire and master scientific methods and techniques in digital health <p><u>Assessment and decision</u></p> <ul style="list-style-type: none"> ● Can assess theoretical and practical problems as well as justify and choose relevant scientific methods and/or techniques to support proposed solutions within the field of digital health ● Can scientifically propose new models for analysing and/or solving scientific problems <p><u>Communication</u></p> <ul style="list-style-type: none"> ● Can communicate and discuss professional issues and proposed solutions to peers (specialists and generalists) and non-experts through written and oral reporting |
| <p>Competencies</p> | <p><u>Action space</u></p> <ul style="list-style-type: none"> ● Can handle complex work- and development-oriented situations in heterogeneous contexts (at e.g. suppliers, regions and municipalities or in interaction with patients and citizens) and which require new solutions. <p><u>Cooperation and responsibility</u></p> <ul style="list-style-type: none"> ● Can independently enter professional and interdisciplinary collaboration with health and IT-professionals (at eg. suppliers, regions and municipalities) ● Can independently initiate and implement various development projects with a view to: to promote relevant use of new knowledge, methods or solutions within digital health ● Can participate in both development and implementation situations and assume professional responsibility ● Can collaborate with relevant actors on concrete IT-solutions |

- Can collaborate in professional communities across professions and scientific disciplines

Learning

- Can independently identify own learning needs and structure own learning in relation to acquiring and assessing knowledge relevant within digital health
- Can handle complex, unpredictable situations that require new solutions

§ 17: STRUCTURE AND CONTENTS OF THE PROGRAMME

The programme is structured in modules and organised 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 organised based on the following work and evaluation methods that combine skills and reflection:

- lectures
- classroom instructions
- project work
- workshops
- exercises (individually and in groups)
- self-study
- teacher feedback
- reflection
- portfolio work
- blended learning based on self-study
- online seminars and presentations

Scheduled activities will be offered with physical attendance and synchronously online known as hybrid learning environment. In addition, some online activities will appear asynchronously, ie. videos, e-learning, feedback etc.

Prior to the registration period, the study board will inform the students about which electives will be offered in the coming semester.

The study board reserves the right not to offer electives if the number of students signed up do not meet the requirements. Students will be offered other options if a chosen course is not offered.

Electives are offered following a study board decision. Therefore, not all electives are offered every year.

Rules on completion of the master's programme (maximum time of study)

The master's programme must be completed no later than 6 years after enrollment of the programme.

The study board may grant an exemption from the rule if there are exceptional circumstances.

§ 18: OVERVIEW OF THE PROGRAMME

For 3rd Semester, students must choose between the three courses in Option A - User Perspective or the three courses in Option B - Applied Perspective.

| Offered as: 1-professional | | | | | | |
|---|-------------|------|-----------------------|----------------------|-------------------------------|----------|
| Module name | Course type | ECTS | Applied grading scale | Evaluation method | Assessment method | Language |
| 1 SEMESTER | | | | | | |
| Directives, Regulations and Requirements for Digital Health Products (SOTDH24M1_1) | Course | 5 | 7-point grading scale | Internal examination | Written or oral exam | English |
| Design, Development and Implementation of Digital Technologies in a Healthcare Context (SOTDH24M1_2) | Course | 5 | 7-point grading scale | Internal examination | Written or oral exam | English |
| Health and Social Science Research Methodologies and Communication (SOTDH24M1_3) | Course | 5 | 7-point grading scale | Internal examination | Written or oral exam | English |
| 2 SEMESTER | | | | | | |
| Digital Health Innovation and Organizational Change Processes in a Healthcare Context (SOTDH24M2_1) | Project | 10 | 7-point grading scale | External examination | Oral exam based on a project | English |
| Elective Courses 2nd Semester Choose 1 course = 5 ECTS | Course | 5 | | | | |
| 3 SEMESTER Option A - User Perspective | | | | | | |
| The Economics of Digital Health (SOTDH24M3_1) | Course | 5 | Passed/Not Passed | Internal examination | Written or oral exam | English |
| Ethics, Health and Artificial Intelligence (SOTDH24M3_2) | Course | 5 | Passed/Not Passed | Internal examination | Written or oral exam | English |
| User Studies and Information Behavior in Health (SOTDH24M3_3) | Course | 5 | 7-point grading scale | Internal examination | Written or oral exam | English |
| 3 SEMESTER Option B - Applied Perspective | | | | | | |
| Machine Learning in the Welfare Sector (SOTDH24M3_4) | Course | 5 | Passed/Not Passed | Internal examination | Written or oral exam | English |
| Decision Support for Clinical Practice (SOTDH24M3_5) | Course | 5 | Passed/Not Passed | Internal examination | Written or oral exam | English |
| Standardization and Interoperability in Health Care (SOTDH24M3_6) | Course | 5 | 7-point grading scale | Internal examination | Written or oral exam | English |
| 4 SEMESTER | | | | | | |
| Master's Project (SOTDH24M4_1) | Project | 15 | 7-point grading scale | External examination | Master's thesis/final project | English |

Elective Courses 2nd Semester
Choose 1 course = 5 ECTS

| Module name | Course type | ECT S | Applied grading scale | Evaluation Method | Assessment method | Language |
|--|-------------|-------|-----------------------|----------------------|----------------------|----------|
| Innovation and Technological Change in a Healthcare Context - User Perspective (SOTDH24M2_2) | Course | 5 | 7-point grading scale | Internal examination | Written or oral exam | English |
| Dataflow, Databases and Data Quality - Applied Perspective (SOTDH24M2_3) | Course | 5 | 7-point grading scale | Internal examination | Written or oral exam | English |

§ 19: ADDITIONAL INFORMATION

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

§ 20: COMMENCEMENT AND TRANSITIONAL RULES

The curriculum is approved by the dean and enters into force as of 1 September 2024.

§ 21: AMENDMENTS TO THE CURRICULUM AND REGULATIONS

On the 16th of May 2024 the Vice-dean of Education has approved that a text about maximum time of study is added to § 17. The amendment is valid from spring 2024.

On the 12th of July 2024 the Vice-dean of Education has approved that a text about the offer of elective course is added to § 17. The amendment is valid from Autum 2024.