

TEACHING AND EXAMINATION REGULATIONS

2023-2024

Appendix - Programme Specifics

MASTER OF SCIENCE

Quantum Information Science & Technology

DELFT UNIVERSITY OF TECHNOLOGY/LEIDEN UNIVERSITY

Administrative details

Nomenclature in CROHO	MSc Quantum Information Science & Technology
CROHO registration number	65029
Orientation and level of the programme	Higher education, Academic Master level
Number of credits	120 EC, 2 years
Mode(s) of study	Fulltime
NVAO accreditation	Positive (16 February 2023)

The implementation regulations in this document apply to the teaching and the examinations related to the Master degree programme in Quantum Information Science & Technology. This document is part of the Teaching and Examination Regulations.

Contents

- Administrative details 1
- Article 1 – Admission to the programme (TER art. 3)..... 3
- Article 2 – Goal of the programme (TER art. 5.1) 4
- Article 3 – The programme’s intended learning outcomes 4
- Article 4 – Structure of the programme (TER art. 6)..... 5
- Article 5 – Composition of the programme (TER art. 7.5) 5
 - 5.1 Programme overview 5
- Article 6 - Bridging programmes 12
- Article 7 - Minor Quantum Science and Quantum Information 13
- Article 8 - Examinations 13
 - 8.1 The form of the examinations and the methods of assessment 13
 - 8.3 Master’s thesis project..... 13

Article 1 – Admission to the programme (TER art. 3)

Individuals holding one of the following degrees have access to the education of the Master's degree programme on the condition that all of the stated requirements have been met.

1. Students with a BSc degree in (Applied) Physics, (Applied) Mathematics, Computer Science, Electrical Engineering, or Astronomy will be admitted to the master's programme, provided they have demonstrably and successfully completed prior to admission
 - At least 5 EC of linear algebra courses
 - At least 5 EC of calculus courses
 - At least 5 EC of quantum mechanics or quantum information courses at the level of D.J. Griffiths' "Introduction to Quantum mechanics" or M.A. Nielsen & I.L. Chuang's "Quantum information and quantum computation" or equivalent.
 - An individual research project of at least 12 EC during the final year of their bachelor's programme, at the level of a final bachelor's project ('BEP') at Delft University of Technology or Leiden University
2. Students who do not possess a degree mentioned in paragraph 1 are required to obtain proof of admission to the programme from the dean, who will seek the advice of the admissions officer on this matter.
In order to obtain proof of admission, the student must meet or, as the case may be, possess:
 - 2.1 The general relevant criteria set by the executive board in the "Policy on fees and enrolment", laid down in Appendix 1 of the Student Charter, and clarified in Part 1.2 "Entrance and admission" of the mentioned Student Charter.
 - 2.2 A degree certificate, together with the accompanying list of marks, proving that he/she possesses knowledge of a sufficiently high level and broad scope to successfully complete the master's programme within the allotted period of two years.
 - 2.3 The prior knowledge formulated in paragraph 1.
3. Students in possession of a Bachelor degree from a Dutch University of Applied Sciences (HBO) are not eligible for admission into the master's programme.
4. Students in possession of a Bachelor of Science degree in the disciplines Electrical Engineering, (Applied) Physics, (Applied) Mathematics, Computer Science or Astronomy from a foreign (i.e. non-Dutch) university can be admitted to the master programme provided they fulfil the following requirements:
 - Specific requirements concerning the Cumulative Grade Point Average (CGPA) and other aspects of the bachelor degree programme apply for diplomas issued in different countries. These countries and their requirements are posted on the TU Delft website and are evaluated by the admission committee.
 - The prior knowledge formulated in paragraph 1.
 - The demands on the level of English language mentioned in the Student Charter.

Article 2 – Goal of the programme (TER art. 5.1)

The master programme *Quantum Information Science & Technology (QIST)* aims to train students to become highly and interdisciplinary qualified researchers, designers and engineers, who can contribute to the challenges in the quantum technological industry.

Article 3 – The programme’s intended learning outcomes (TER art. 5.2)

Graduates from the MSc Quantum Information Science & Technology programme should possess the following competences:

1. Competent in quantum information processing

Graduates in QIST

- 1A have mastered in-depth knowledge on quantum information processing at the multidisciplinary intersection of quantum physics, mathematics, electrical engineering and computer science, and possess advanced in-depth knowledge in at least one of the following areas: quantum computing and simulations, quantum communication or quantum sensing and metrology;
- 1B are able to relate scientific knowledge in the disciplines quantum physics, mathematics, electrical engineering or computer science to the realisation of core components of quantum information processing systems;
- 1C have mastered key techniques for high-end quantum system integration, i.e. the realisation of complex quantum information processing devices.

2. Competent in performing interdisciplinary quantum research

Graduates in QIST....

- 2A are able to investigate advanced contemporary topics in the interdisciplinary field of quantum information science and technology by critically selecting relevant scientific literature and formulating answerable research questions
- 2B are able to set up and carry out an interdisciplinary research plan to solve technological challenges in the field of QIST by formulating testable hypotheses, identifying and applying relevant theoretical and/or experimental research methods, drawing conclusions and formulating recommendations.

3. Competent in designing quantum systems

Graduates in QIST....

- 3A are able to translate multidisciplinary research to functional quantum system design and more specifically to design of quantum computing, quantum sensing or quantum network components;
- 3B are able to design mathematical and physical models for quantum hardware, (quantum) electronic or quantum software implementations and ways to evaluate and test them.

4. Competent in adopting a scientific approach

Graduates in QIST....

- 4A are able to develop novel ideas or techniques at the intersection of quantum hardware, quantum electronics and/or quantum software development;
- 4B are able to take into account limitations, uncertainties, ambiguities, safety and ethical aspects in tackling research and technological challenges;
- 4C are aware of what constitutes scientific integrity and the values associated with it.

5. Competent in basic intellectual skills

Graduates in QIST....

- 5A are competent in autonomous reasoning, (self-)reflecting, and forming a judgment in the context of quantum information technology and its applications;
- 5B are able to apply knowledge and problem-solving skills to new and unfamiliar problems in the wider field of QIST, including situations where information is limited;
- 5C are aware of the need and strive to continuously improve their research and design skills in order to professionally and purposefully advance and solve emerging challenges.

6. Competent in cooperating and communicating

Graduates in QIST....

- 6A are able to effectively lead, co-create and collaborate within a multidisciplinary research team;
- 6B are able to operate and communicate in a responsible, ethical and transparent manner, with an open-minded attitude;

6C are able to report, both orally and written, on research activities and their outcome to academic and industrial audiences, and to both specialists and non-specialists.

7. Competent in considering the temporal and social context

Graduates in QIST

- 7A are able to anticipate and evaluate the technological, economic, ethical and societal limitations and impact of their work;
- 7B are able to act on the basis of an informed vision in an interconnected and rapidly changing field;
- 7C are able to take into account aspects of safety, privacy, sustainability, social well-being in their economic and political context at a local and global level.

Article 4 – Structure of the programme (TER art. 6)

The Quantum Information Science & Technology programme is a two-year MSc programme and comprises 120 EC. The programme consists of:

- a. a homologation part (10 EC) to allow incoming students, with their bachelor diplomas obtained in different fields, to acquire the essential basic knowledge and skills required for the core programme
- b. a core of mandatory courses (20 EC) to give students common multidisciplinary background knowledge in quantum information technology.
- c. Elective courses (25 EC)
- d. Two team projects: an orientation team project (5 EC) in the first year and a multidisciplinary team project (15 EC) in the second year
- e. An individual master's thesis project (44 EC), which the student performs in one of the research groups at TU Delft or Leiden University that are affiliated with the programme (see article 5.1.5)
- f. A student portfolio course (1 EC) throughout the two years in which students reflect at regular intervals on their ambitions and progress.

Through homologation and core courses, the first semester lays the foundation for the rest of the programme. During the second semester, students enter the profile phase of the curriculum. Through elective courses they develop more specialised knowledge in one of the three application areas of quantum science and technology: quantum computing and simulations, quantum communication or quantum sensing and metrology. Each profile consists of one compulsory elective and can be freely complemented with other elective courses, see article 5.1.3. The second year is dedicated to a multidisciplinary team project and the (individual) master's thesis project, see article 5.1.4 and 5.1.5.

Article 5 – Composition of the programme (TER art. 7.5)

The courses of the degree programme are listed in this article, along with their study load. The number of contact hours and the form of examination of each course, as well as the programming of the examinations are specified in the digital study guide.

5.1 Programme overview

A schematic overview of the QIST curriculum is given in Fig. 1, and a description of each of the six parts of the curriculum given below: the homologation modules (article 5.1.1), the core programme (article 5.1.2), the elective courses (article 5.1.3), the orientation and multidisciplinary team projects (article 5.1.4), and the master's thesis project (article 5.1.5)

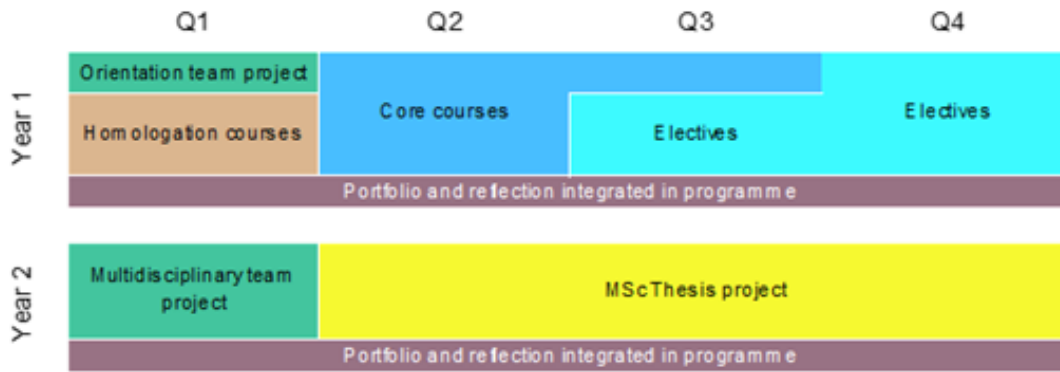


Fig. 1: Outline of the curriculum, with each of the two years split into four quarters (Q1-Q4).

5.1.1 Homologation Modules, 10 EC

The aim of the homologation programme in the first quarter is to allow incoming students, with their different background knowledge, to acquire the essential basic knowledge and skills required for the core programme which they have not yet, or to an insufficient extent, come across in their bachelor programme. Depending on the latter, each student chooses a 10 EC programme from the following set of homologation modules (individual study programme):

QIST4100 Homologation for QIST
Mathematics for quantum physics, 2 EC
Introduction to quantum physics for QIST, 3 EC
Electrical and computer engineering for QIST, 5 EC
Information theory for QIST, 2.5 EC
Computer science for QIST, 2.5 EC

Here the amount of EC gives an indication of the required time commitment for following the entire module – depending on their background knowledge students can also opt to partially follow a module. At the end of the first quarter the homologation programme is concluded with a written exam which is identical for all students and covers the knowledge of all modules. Table 1 below indicates which modules are advisable for students with specific bachelor diplomas:

Module → Student background ↓	Mathematics for quantum physics	Introduction to quantum physics for QIST	Electronic and computer engineering for QIST	Information theory for QIST	Computer science for QIST
BSc Mathematics	No	yes	yes	maybe	maybe
BSc Physics	No	no	yes	yes	yes
BSc Electrical Engineering	maybe	yes	no	yes	yes
BSc Computer Science	Yes	yes	yes	maybe	no

Table 1: Homologation modules as recommended for students with various bachelor's diplomas that are eligible for admission into QIST. Modules marked by "yes" are highly recommended, modules marked as "no" are probably not needed, and modules marked as "maybe" are recommended depending on the specific course programme a student has followed prior to admission.

5.1.2 Core Programme, 21 EC

The QIST core programme includes the following compulsory courses.

QIST4000 Equipping the QIST professional, 1 EC
QIST4310 Fundamentals of Quantum Information, 4 EC
QIST4300 Qubit Dynamics and Quantum control, 4 EC

QIST4330 Quantum Devices and Interfaces, 3 EC
QIST4400 Quantum Computer Architecture, 5 EC
QIST4320, Quantum Computation and Quantum Programming, 4 EC

It is not possible to get an exemption in the master's programme based on courses passed in a bachelor programme.

5.1.3 Elective Courses: 25 EC

After the core programme each student chooses a profile: through elective courses more specialised knowledge in one of the three application areas of quantum science and technology (quantum computing and simulations, quantum communication or quantum sensing and metrology) is acquired, see also article 4.

The elective courses build on the core programme (see article 5.1.2) and aim at breadth as well as depth in specific topics. They focus on scientific and technical subjects relating to and recommended for at least one of the profiles (quantum computing and simulations, quantum communication, quantum sensing and metrology). For each profile, the student should take the elective course(s) specified under a.-c. below. The remaining courses can be taken from the general list under d. below.

a. Quantum computing and simulations:

Students wishing to specialise in the profile quantum computing and simulations are advised to take at least one of the following three courses:

AP3432 Quantum Hardware 1 - Theoretical Concepts, 4EC
WI4659 Applied Quantum Algorithms, 6EC
4343APQAL Applied Quantum Algorithms, 6EC

The remaining elective courses can be chosen from the list of general elective courses under d.

b. Quantum communication:

Students wishing to specialise in the profile quantum communication are advised to take at least one of the following courses:

CS4090 Quantum Communication and Cryptography, 5EC
AP3432 Quantum Hardware 1 - Theoretical Concepts, 4EC

The remaining elective courses can be chosen from the list of general elective courses under d.

c. Quantum sensing and metrology:

Students wishing to specialise in the profile quantum sensing and metrology are advised to take the following course:

AP3432 Quantum Hardware 1 - Theoretical Concepts, 4EC

The remaining elective courses can be chosen from the list of general elective courses under d.

d. General elective courses (not limitative)

Offered by	Course name	EC	Recommended background
Delft	AP3432, Quantum Hardware 1 - Theoretical Concepts	4	all
Delft	AP3442, Quantum Hardware 2 - Experimental State of the Art	4	all (quantum hardware 1 is required prior knowledge)
Delft	CS4090, Quantum Communication and Cryptography	5	all

Delft	AP3421-PR, Quantum Information Project	2	all
Delft	AP3663, Special Topics in Quantum Technology	4	all
Delft	WI4650, Applied Quantum Algorithms	6	all
Delft	EE4C02, Systems Engineering	3	all
Delft	EE4C10, Analog Circuit Design Fundamentals	5	all
Delft	EE4710, Modelling, Algorithms and Data Structures	5	all
Delft	EE4C06, Networking	5	all
Delft	CS4220, Machine Learning 1	5	all
Leiden	4343APQAL, Applied Quantum Algorithms	6	all
Leiden	4343INTML, Introduction to machine learning	6	all
Leiden	4609COMNW, Complex Networks	6	all
Delft	CS4240, Deep learning	5	computer science
Delft	CESE4010, Advanced Computing Systems	5	electrical engineering, computer science
Delft	EE4520, Analog CMOS design I	3	electrical engineering (requires as prior knowledge EE4C10)
Delft	EE4C12, Machine Learning for Electrical Engineering	5	electrical engineering
Delft	EE4585, Semiconductor device physics	5	electrical engineering, physics
Delft	EE4610, Digital IC design	3	electrical engineering
Delft	ET4252, Analog IC design	4	electrical engineering
Delft	ET4351, VLSI Systems on Chip Architectures	4	electrical engineering
Delft	EE4C08, Measurement and Instrumentation	5	electrical engineering
Delft	EE4705, Solid-state physics	3	electrical engineering, <u>not</u> physics, <u>not</u> together with EE4710
Delft	EE4710, Solid-state physics with quantum and nano- electronics	6	electrical engineering, not physics, not together with EE4705
Delft	ET4391, Advanced Microelectronics packaging	3	electrical engineering, physics
Delft	WI4006, Special functions and Representation Theory	5	mathematics
Delft	WI4620, Semidefinite Optimisation	6	mathematics
Delft	WI4046, Spectral Theory of linear operators	6	mathematics. Prior knowledge on (applied) functional analysis from WI4203 or equivalent is required.
Delft	WI4450, Special Topics in Computational Science and Engineering	6	mathematics. physics and electrical engineering: check studyguide (topic varies every year)
Leiden	4373QUIT6, Quantum Information Theory	6	mathematics
Leiden	4082INTPM, Introduction to Perturbation Methods	6	mathematics
Leiden	4373REPTH, Representation Theory	6	mathematics
Leiden	4373INTDS, Introduction to Dynamical Systems	6	mathematics
Leiden	4082LINAN, Linear Analysis	6	mathematics
Mastermath	Semidefinite Optimisation	8	mathematics. Taught at Free University (Spring 2024)
Mastermath	Continuous Optimisation	6	mathematics Taught at Utrecht University (Fall 2023)
Delft	AP3051, Advanced Quantum Mechanics	6	physics
Delft	AP3303, Applications of Quantum Mechanics	3	physics
Delft	AP3281, Quantum Transport	6	physics
Delft	AP3082, Computational physics	6	physics (not in combination with 4403CMPH3 or 4403CMPH6)
Delft	AP3222, Nanotechnology	6	physics

Delft	AP3751, Artificial Intelligence for physicists	4	physics
Delft	AP3261, Mesoscopic Physics	6	physics
Delft	AP3211, Advanced Solid State Physics	6	physics, electrical engineering (provided they fulfill the criteria on required prior knowledge specified in the studyguide)
Delft	AP3252, Electron Microscopy Characterization of the Nanoscale	3	physics
Delft	AP3271, Molecular Electronics	6	physics
Delft	AP3112, Quantum Optics and lasers	6	physics
Leiden	4403QUTH6, Quantum Theory	6	physics
Leiden	4403QOPT6, Quantum Optics	6	physics
Leiden	4403COPH6, Condensed Matter Physics	6	physics (Students with a BSc diploma in electrical engineering who have completed a course on basics of solid-state physics are also eligible)
Leiden	4403TCM06, Theory of Condensed Matter	6	physics AND requirements as specified in the Leiden study guide
Leiden	4403PHCQI, Physics and Classical/Quantum Information	6	physics
Leiden	4403CMPH3, Computational Physics	3	physics. Not in combination with AP3082
Leiden	4403CMPH6, Computational Physics	6	physics. Not in combination with AP3082

If a student wishes to take an elective course or module that is not listed in the table above, approval from the Board of Examiners must be obtained.

5.1.4 Orientation and Multidisciplinary Team Projects (5 EC and 15 EC)

The QIST core programme includes two compulsory team projects:

QIST4200	Orientation Team Project, 5EC
QIST4500	Multidisciplinary Team Project, 15 EC

The first team project (5 EC) is scheduled at the beginning of the programme. Students with different bachelor backgrounds will work together on a problem related to quantum information processing. The second team project (15 EC) is scheduled at the start of the second year. Students with different profiles work together on a highly challenging and actual problem with a multidisciplinary character related to quantum system integration that is proposed by a company affiliated with the quantum technological field.

5.1.5 Master's thesis Project, 44 EC

The QIST core programme includes the master's thesis Project

QIST5000 Master's thesis, 44 EC

The topic of the thesis project is related to the profile the student has chosen and performed in a research group affiliated with the QIST programme (see list below) in the Faculty of Applied Sciences, the Faculty of Electrical Engineering, Mathematics and Computer Science at Delft University of Technology, the Institute QuTech at Delft University of Technology, or the Faculty of Science at Leiden University.

Orientations

The master's thesis project allows for 2 orientations (research & design, and business) of which each student chooses one:

- Research & Design orientation: the student performs a 44 EC research or design-oriented project in one of the research groups at Delft University of Technology or Leiden University that are affiliated with the programme (see list below).
- Business orientation: the student performs a 30 EC application-oriented project in collaboration with a company under co-supervision of a PI in one of the research groups affiliated with the QIST programme (see list below) plus a total of 14 EC course(s) on management of technology and entrepreneurship chosen from the following list (not limitative)

Offered by	Course name	EC
Delft	TPM401, Technology Entrepreneurship and Innovation	5
Delft	TPM403SET, Technology Entrepreneurship and Sustainability	4
Delft	TPM404, Technology Entrepreneurship and Global Development	4
Delft	TPM405, Patent Law and Patent Policy	5
Delft	TPM406, Corporate Entrepreneurship and Startups	5
Delft	TPM411, Idea to Startup – IT & AI	5
Delft	TPM414, Idea to Startup – Deep Tech	5
Delft	TPM416, Turning Technology into Business	6
Delft	TPM420, Ready to startup	6
Delft	TPM425B, Start-up Challenge	6
Leiden	4603BSLM5, Leading & Managing People	5
Leiden	4603BSFT3, Financing Technology Ventures	3
Leiden	4603BSEN3, Entrepreneurship	3
Leiden	4603BSEF3, Entrepreneurial Finance	3
Leiden	4603BSAC3, Accounting	3
Leiden	4603BSMAA, Marketing Analytics	3

Research groups that are affiliated with the QIST programme:

- In the Faculty of Applied Sciences at Delft University of Technology:
 - All labs/groups in the Department of Quantum Nanoscience (QN)

- In the Faculty of Electrical Engineering, Mathematics and Computer Science at Delft University of Technology:
 1. Affiliated groups in the Department of Applied Mathematics (DIAM)
 2. Department of Microelectronics:
Research groups *Circuits and Systems, Electronic Components, Technology and Measurement, Electric Instrumentation, Electronic Circuits and Architectures, Microwave Sensing, Signals and Systems*
 3. Department of Quantum & Computer Engineering
 4. Department of Software Technology:
Research groups *Embedded and Networked Systems and Quantum Computing Science*

- In the institute QuTech at TU Delft University of Technology:
 5. All labs and groups as listed on the website <https://qutech.nl/labs-and-groups/>

- In the Faculty of Science at Leiden University:
 6. Affiliated groups in the Mathematical Institute
 7. Leiden Institute for Advanced Computer Science:
Research groups *Theory and Artificial Intelligence and Machine Learning*
 8. Leiden Institute of Physics:
Research groups affiliated with the research theme *Quantum Matter and Optics*
 9. Affiliated groups in the Lorentz Institute

The prior approval of the Board of Examiners should be obtained if the thesis work is performed outside the mentioned departments or affiliated groups.

Regulations governing the master's thesis project are stated in article 8.4 .

Article 6 - Bridging programmes

There are currently no bridging programmes foreseen for students in possession of a bachelor of science degree other than those mentioned in article 1.1. There are also no bridging programmes available for students in possession of a bachelor of science degree from a Dutch University of Applied Sciences (HBO).

Article 7 - Minor Quantum Science and Quantum Information

The minor Quantum Science and Quantum Information falls under the responsibility of the MSc QIST programme management. The minor programme is as follows:

TN3105	Mathematics for Quantum Physics	2 EC	all students
TN3126	Information and Computation	5 EC	AS students
TN3136	Quantum Physics	5 EC	EEMCS students
TN3145	Quantum Communication and Computation	4 EC	all students
TN3156	Quantum Sensing and Measurement	4 EC	all students
TN3166	Solid-State Quantum Bits (consisting of TN3166-A Semiconductor Quantum Bits, and TN3166-B Superconductor Quantum Bits)	9 EC	all students
TN3175	Quantum Engineering Group Project	6 EC	all students

Article 8 - Examinations

8.1 The form of the examinations and the methods of assessment

The form of the examinations and the methods of assessment are described in the study guide, at studyguide.tudelft.nl.

8.2 Entry requirements

1. The precise conditions for participating in a particular course with regard to previously completed courses is stated in the study guide.

4. For QIST5000 Master thesis the entry requirements are:

- have been admitted to the master programme QIST,
- have passed QIST4100 Homologation for QIST and at least 20 EC consisting of core and elective courses,
- have handed in the signed thesis registration form at the thesis office.

8.3 Master's thesis project

The following regulations have been drawn up to make the time spent on the master's thesis project in line with the credits obtained for it and to avoid unnecessary delays.

1. The master's thesis project consists of preparing and performing thesis work and includes writing the report and giving the final presentation.
2. For their thesis work students can choose between two orientations, see article 5.1.5
3. Preparation for the master's thesis project generally consists of (depending on the specific nature of the project not all items listed here and/or additional requirements may apply):
 - Reading background literature necessary for the project;
 - Acquiring necessary skills, for example learning to work with experimental set-ups, clean room and/or computer skills;
 - Formulating the research goal of the project: which question will be addressed and what method(s) will be applied to arrive at the answer;
 - Making a planning, including, where applicable, anticipating pitfalls and how these will be dealt with in order to prevent delays (e.g. equipment failure, delayed delivery of materials, sharing/availability of facilities);
 - Writing a project plan, which is then agreed upon by the thesis supervisor and student

4. The master's thesis committee consists of at least three examiners. One of the members of the committee is the responsible thesis supervisor, at least one of the members belongs to a research group independent of the research group of the thesis supervisor, and at least one of the members belongs to the QIST teaching staff, for a part of the programme other than the master's thesis project and at least one of them is a full professor or an associate professor.
Thesis projects carried out in affiliated groups outside the Faculties involved in the programme (the Faculty of Applied Sciences and the Faculty of Electrical Engineering, Mathematics and Computer Science at Delft University of Technology and the Faculty of Science at Leiden University) or QuTech shall be assessed by a committee including at least one examiner from the aforementioned Faculties or QuTech.
5. The thesis office reminds the responsible supervisor and student in time to assess whether the thesis meets the criteria (see also article 5.1.5). If the responsible supervisor is confident that the student will pass the defense, the exact time and date of the final presentation and thesis defense are fixed and the members of the assessment committee confirmed. Both the date/time of the master's thesis defense and the committee are determined by the thesis supervisor after hearing the student. In principle the defense takes place within two weeks after the end date for handing in the final version of the thesis. The responsible supervisor reports the date of the defense and the composition of the assessment committee to the thesis office. In exceptional cases, the board of examiners may be involved in setting the date and time.
If the responsible supervisor is in doubt whether the student will pass the defense, he/she should discuss with the other members of the assessment committee whether to give green light or not.
6. The responsible supervisor can decide to cancel the planned defense if he/she is confident that the student will not pass the defense. The supervisor then needs to deliver a written argumentation for this decision to the thesis office and the programme coordinator. Prior to this decision the student must be warned repeatedly during the course of the project, to give the student a chance to improve.
After a negative decision, a choice must be made in consultation with the student between a delay (with a new binding time schedule with a maximum of three months) or a definitive cancellation of the thesis project. The thesis project can be delayed only once. Cancellation implies starting a new project.
Note that an impending publication or more/better results are not valid reasons for an extension.
7. In case of unforeseen personal circumstances (illness; pregnancy and childbirth; exceptional family circumstances; physical, sensory or other functional disabilities) the student can apply for an extension of the end date (on which the final version of the thesis report needs to be handed in) to the Board of Examiners, with a statement of the academic counsellor. Students are required to contact the academic counsellor as soon as possible after the particular circumstance has occurred. The information is treated confidentially by the academic counsellor.
In case of exceptional events, an extension of the end date (on which the final version of the thesis report needs to be handed in) can be granted by the Board of Examiners. Reasons for this should be non-project related and non-private; e.g. unexpected absence of the responsible supervisor without a suitable alternative responsible supervisor available.

Further rules governing master's thesis projects can be found in article 21 of the Rules and Regulations of the Board of Examiners.