

**MASTER'S DEGREE PROGRAMME
TECHNICAL MEDICINE
2019-2020**

**Rules and Guidelines
of the Board of Examiners KT-TM
(RGBE)**

**Faculteit Werktuigbouwkunde, Maritieme Techniek
en Technische Materiaalwetenschappen (3mE)
van de Technische Universiteit Delft
&
Faculteit Geneeskunde (LUMC)
van de Universiteit Leiden
&
Faculteit Geneeskunde (Erasmus MC)
van de Erasmus Universiteit Rotterdam**



General

Article 1 Scope of applicability

These Rules and Guidelines govern the Master's degree programme of Technical Medicine, a joint degree programme of the Delft University of Technology, the Leiden University and the Erasmus University Rotterdam, referred to below as the 'Programme'.

Article 2 Definition of terms

The definitions of terms contained in Article 1.1 of the Dutch Higher Education and Research Act and Article 2 of the corresponding Master's degree programme Teaching and Examination Regulations are applicable.

The following concepts apply in these rules and guidelines:

Student Administration The student programme administration of the Mechanical, Maritime and Materials Engineering faculty of Delft University of Technology.

LDE The faculty Medicine (LUMC) of Leiden University, Delft University of Technology [secretary] and the faculty of Medicine and Health Sciences (Erasmus MC) of Erasmus University Rotterdam.

Article 3 The Board of Examiners' working method

1. In principle the Board of Examiners meets once a month, except for July or August.
2. The Board of Examiners may delegate certain clearly defined duties.
3. The chairman and secretary are charged with looking after the day-to-day affairs of the Board of Examiners.
4. The members of the Board of Examiners decide jointly which of them shall deputise for the chairman during his or her absence.
5. The meetings are not public.
6. In the event that a student submits an application or complaint to the Board of Examiners that involves an examiner who is a member of the Board of Examiners, the examiner concerned will have no involvement in the handling of the application or complaint and will temporarily absent him or herself from the meeting.
7. A report will be drawn up regarding the matters discussed at meetings.
8. Every year, the Board of Examiners compiles a report on its activities in the previous academic year and sends this report to the Dean.

Article 4 Decisions taken by the Board of Examiners

1. The Board of Examiners' rulings are based on a simple majority vote.
2. If the votes are equally divided the chairman of the Board of Examiners will have a casting vote unless the votes were cast by ballot.
3. If votes cast by ballot are equally divided, then a second vote by ballot will be held; if the votes are once again equally divided, the proposal being voted upon will be rejected.

Article 5 Appointment of examiners, external examiners and ad hoc committees

1. The Board of Examiners appoints as examiners the members of staff responsible for conducting examinations and determining the results. All examiners of the compulsory Master's programme have a University Teaching Qualification (UTQ/BKO) or have been granted an exemption. In special cases the Board of Examiners may deviate from these provisions. To this end, the director of education can submit a reasoned request to the Board of Examiners.
2. The Board of Examiners is entitled to appoint experts from outside the institution as examiners. This kind of appointment will be for a maximum period of two years, with the option to extend this period each time by a maximum of a further two years.
3. The Board of Examiners may appoint ad hoc committees, including an assessment committee as referred to in Article 23.

Article 6 Standards

The Board of Examiners or the examiner will use the following standards as a guideline when making decisions and will weigh the various standards against each other in the event of any inconsistency:



- a. maintaining the quality and selection requirements with respect to the examination or part of the examination in question;
- b. expediency, with the goal of:
 - limiting study delays of students who are making good progress in their studies;
 - persuading a student to drop out of the programme with as little loss of time as possible if it has become unlikely that the programme will be completed within a reasonable period of enrolment;
- c. warning students and taking appropriate action if they are in danger of taking on too great a study load;
- d. leniency with respect to a student who is experiencing or has experienced a study delay due to circumstances that are beyond his/her control.

Article 7 Fraud

1. Fraud is taken to mean any act or omission by a student that makes it fully or partially impossible to properly assess the knowledge, insight and skill of that student or another student. Fraud is in any event understood to include the commission of plagiarism in any form; it should be clear that this includes all cases in which a student implies that the work in question is his or her own when this is not the case, such as copying the work of others and presenting it as one's own through deliberate deception or through carelessness or inadequate references. Fraud also includes among others the following:
 - being in possession, during an examination, of aids (digital or otherwise), any notes, pre-programmed calculator, mobile phone, book, syllabus, notes in books for an open-book examination, the use of which has not been expressly permitted;
 - looking at the work of others during an examination or exchanging information or materials inside or outside the room where the examination is taking place;
 - getting someone else to take the examination or impersonating someone else during an examination;
 - being in possession of the questions/assignments of an examination before the date or time on which the examination is due to be held.
2. Whenever a student is suspected of having committed fraud, the matter will be dealt with by the Board of Examiners of the study programme on which the student is enrolled. If a Board of Examiners receives a complaint relating to fraud about a student who is enrolled on a different study programme, it will immediately pass on the complaint to the Board of Examiners of the relevant study programme. In the case of fraud committed in group work involving students from different study programmes, the Boards of Examiners concerned will together agree which Board of Examiners will handle the complaint. The Board of Examiners dealing with the complaint will keep the other Board or Boards informed of the outcome.
3. If fraud is discovered or suspected while an examination is being taken, the examiner or invigilator will immediately inform the student in question and record the incident in a written report as quickly as possible. The written report will be added to the student's completed examination after the examination has ended. The examiner or the invigilator can ask the student to make any relevant evidence available. If the student refuses to do so, this will be noted in the report. The report and any evidence will be submitted to the Board of Examiners immediately.
4. If fraud is discovered or suspected other than while an examination is being taken, the examiner will record the incident in writing as quickly as possible. The report and any evidence will be submitted to the Board of Examiners immediately.
5. If it has been established that fraud has been committed, or if there is a suspicion to that effect, the Board of Examiners, the examiner, and the invigilator are authorised to obtain information from employees or parts of the organisation that could be used as evidence.
6. The Board of Examiners will give the student an opportunity to add written comments to the report that was prepared by the examiner or invigilator.
7. The Board of Examiners will only take a decision as described in section 8 and will only impose a sanction after the student in question has been given the opportunity of having a hearing. A hearing is not deemed necessary if the Board of Examiners determines that no fraud has been committed.
8. The Board of Examiners will, in the event of fraud, decide that no mark will be awarded to the student for the examination in question or assessment given for the practical exercise, apart from in exceptional cases.
9. In addition to the decision in the foregoing section, the Board of Examiners will decide whether a sanction will be imposed. The Board of Examiners may, depending on the seriousness of the fraud, including repeated incidents of fraud, impose one or more sanctions on students, such as:
 - a. reprimand;
 - b. exclusion from the examination or practical exercise in question for a maximum period of one year;
 - c. exclusion from one or more examination periods for a maximum period of one year; or
 - d. a plagiarism course.

In the event of serious fraud, the Board of Examiners may decide to propose to the Executive Board that the student's enrolment in the degree programme be permanently terminated.

10. When, within the context of group learning, the Board of Examiners determines that group fraud has been committed, the Board of Examiners may impose one or more sanctions, as referred to in section 9, upon members of the group.

Article 8 Period for reply

The Board of Examiners will render a decision with respect to a student's application within 40 working days after the application is received or, if the application is submitted during an academic holiday (see the 3mE academic calendar) or within a period of three weeks prior to an academic holiday, within 40 working days after the end of that holiday. The Board of Examiners may postpone making a decision for a maximum period of 10 working days. The student will be informed in writing of any postponement before the end of the period referred to in the first sentence. Incomplete or incorrect applications will not be considered.

Registering and withdrawing

Article 9 Registering for final master's examination and applying for degree certificate

1. Registration for the final master's examination and the application for the degree certificate must be submitted to the Student Administration no later than 20 working days before the examination in question is to be held.
2. The student must submit the final study programme to the Student Administration no later than the day on which the period referred to in section 1 commences.
3. All requirements must be met and all results must have been submitted to the Student Administration no later than five working days before the final master's examination.
4. The Student Administration has the possibility of putting a student forward for the final master's examination if it has established that the student has met all the relevant obligations. The Student Administration will inform the student of its intention to put the student forward for the final examination. The Student Administration will drop its intention when the student indicates within the specified period that he/she wishes to improve a result or wishes to supplement his/her examination programme. In that case, the student will have the opportunity to do so the rest of the current academic year.

Examinations

Article 10 Administering examinations

1. When the same examination is administered by more than one examiner, simultaneously or otherwise, and the results of the examination in question are also assessed by more than one examiner, the final assessment will be made on the basis of the relevant predetermined standards in accordance with the provisions of Article 14 section 2. If applicable, the Board of Examiners will appoint an examiner to bear the primary responsibility for the examination.
2. In special cases the Board of Examiners may allow a student to take an examination in a different form. The request for this must be substantiated.
3. An oral examination will be conducted by the examiner and another scientific employee.
4. A student's registration will be confirmed by or on behalf of the Board of Examiners during examinations.

Article 11 Measure in the event of an irregularity or suspected irregularity

1. Prior to, during or after an examination the Board of Examiners may decide that the examination must be taken in a different way or retaken at a different time in the event of any irregularity or if there are reasonable grounds for suspecting an irregularity, such as:
 - large-scale or organised fraud that renders the examination results untrustworthy and where it is not (yet) possible to determine which individual students are involved;
 - a technical failure during the examination that renders the results untrustworthy.
2. If the examination has already been taken, the Board of Examiners may decide to declare the results of the examination in question invalid for all participants. The examination must then be retaken. In this case the Board of Examiners will set a new examination date as soon as possible.

Article 12 Questions and assignments

1. The questions and assignments covered by an examination includes only content that is part of study material or sources made known in advance. These sources will be generally made known before commencement of the coursework that prepares students for the examination. The exact scope of the material will be finalised no later than one month before the examination is taken.
2. The questions and assignments contained in an examination are to be a well-balanced representation of the materials studied.
3. The examination will reflect the learning objectives in terms of level, content, and form.
4. The questions and assignments will be clear and unambiguous. The instructions regarding the weighing of the questions and assignments will also be clear and unambiguous, and formulated in such a way that students should be able to understand how extensive and detailed their answers must be.
5. Well before a written examination, the teacher or examiner will give students the opportunity to familiarise themselves with sample questions and answers.
6. The content of the examination will be such that students can be reasonably expected to have sufficient time to answer the questions.

Article 13 Procedure during examinations

1. The examiner will ensure that invigilators are appointed for an examination who will supervise the examination on behalf of and under the responsibility of the Board of Examiners to ensure that examination proceeds properly. The invigilators will observe the Rules of Procedure for Examinations (Reglement van Orde bij Toetsen).
2. The following applies regarding entering an examination room:
 - a. only students with a valid identity document may gain access to the examination. Acceptable identity documents are a campus card, passport, identity card, or driving licence, and
 - b. students may only gain access to the examination if they have a valid examination ticket or if they appear on the list of examinees.
3. At the request of or on behalf of the Board of Examiners, students are required to show proof of identity using their campus card or a valid identity document.
4. The student must follow the instructions issued by the Board of Examiners, the examiner or the invigilator that have been published before the start of the examination and the instructions that are given during the examination or immediately after it has ended.
5. Any student who does not comply with the provisions laid down in or pursuant to section 3 and 4 may be excluded from further participation by the Board of Examiners or the examiner. In these cases no mark will be recorded for the examination.
6. Examination paper and scrap paper will be provided. The student immediately writes down his/her name on all papers. Only work written on official examination answer sheets will be assessed. The student must bring his/her own writing and drawing materials.
7. During examinations, students may not use or have available any aids such as pre-programmed calculators, computers, mobile telephones or other devices with similar functions unless the examiner has decided otherwise. Therefore, such aids must be stored away during examinations. If the use of any such item during an examination is permitted, students must themselves bring their own calculators or aids. Only the following calculators are allowed: Casio Fx82MS, the Texas Instruments TI-30-XB and the Texas Instruments TI-30-XS.
8. During an examination the student may not have in his/her possession nor may he/she consult any books, lecture notes, other notes or other documents unless the examiner has decided otherwise.
9. Answers may not be written in pencil unless the examiner has given permission to do so in advance.
10. The student may not take the examination assignments with him/her after the examination has ended unless the examiner has decided otherwise.
11. Students who wish to participate in an examination more than 30 minutes after the examination in question has started will not be admitted.
12. The student is not permitted to leave the location where the examination is being held within 30 minutes after an examination officially starts. In urgent cases permission may be given to leave the location where the examination is being held after those 30 minutes have passed, under the supervision of an invigilator. No more than one student may be absent at any given time.
13. Before the student's final departure from the location where the examination is being held (not earlier than 30 minutes after the examination in question has started) the student must hand in the examination work, on which he/she has written his/her name and student number on each page, to the examiner or invigilator.

Article 14 Assessment

1. The assessment method, including the weighing of components, is to be clear such that the student can ascertain how the result was reached.
2. Written examinations will be assessed, with due observance of the provisions contained in Article 10 section 1, on the basis of model answers and standards that have been laid down in writing in advance and that may be revised during correction.
3. A result will be indicated by a mark, a V (voldaan - pass), an O (onvoldoende - fail) or a VR (vrijstelling - exemption).
4. A final mark for a course will be expressed in a whole or half mark from 1.0 to 10.0. The meaning of the marks is as follows:

9.5 – 10.0	Excellent
8.5 – 9.0	Very good
7.5 – 8.0	Good
6.5 – 7.0	More than satisfactory
6.0	Satisfactory
4.5 – 5.5	Nearly satisfactory
3.5 – 4.0	Unsatisfactory
1.0 – 3.0	Very poor
5. When rounding of the marks to half and whole figures, three-tenths, four-tenths, eight-tenths and nine-tenths will be rounded up and one-tenth, two-tenths, six-tenths and seven-tenths will be rounded down.
6. If a course consists of more than one component, the subject overview in the study guide will indicate how the final mark will be determined. The following provisions apply in this respect:
 - The mark for a part of a course will be expressed in decimals, and hundredths greater than or equal to 0.05 will be rounded up and hundredths lower than 0.05 will be rounded down.
 - Results for interim examinations or assessments for practical exercises may only be included as part of the final mark if they are 5.0 or higher. In the event of a lower mark, no final mark will be given.
7. Final marks that are earned in another degree programme at this or another Dutch university will be adopted as they have been given, as a whole figure or half figure or as a decimal figure. The definition that the other degree programme attributes to those marks will also be adopted. The provisions of Article 27 apply to final marks that are earned abroad.
8. If more than one result is earned for a course, the highest result that has been earned will apply to the final master's examination.
9. If a student fails a practical exercise that is conducted once a year and the result is ≥ 5.0 , the examiner is allowed to give that student a supplementary assignment whereby the practical assignment can be completed with a 6.0. The content of the supplementary assignment is determined by the examiner.
10. If a student is able to demonstrate that examination work they have submitted has been lost as a result of act or omission of the institution before being assessed, the Board of Examiners shall decide what subsequent course of action will be taken.

Article 15 Registering and dating of results

1. The examiner records the results of an examination in OSIRIS, including the date on which the examination was held. In the case of a practical exercise, the examiner records the date on which the final (internship) report or project was submitted, or the date on which the oral final presentation was given. In all other cases, the examiner records the date on which the practical exercise was completed.
2. The examiner may determine the latest date by which a practical exercise must be completed, such as the date on which a report must be handed in. This information must be included in the relevant course description in Brightspace.

Article 16 Retention of work and results

1. Due to the possibility of appeals proceedings, student work that has been assessed, with the exception of three-dimensional projects, must be retained for at least two years after the date of the exam. Three-dimensional projects must be retained by the examiner for at least six weeks after the results have been published.
2. By way of derogation of Section 1, and in connection with the re-accreditation of degree programmes, successfully completed final master's examinations and related papers, as well as the relevant assessment forms, must be retained for at least seven years.
3. In the event that no result has been published, the period referred to in Section 1 will commence on the date on which the exam is held.
4. The results of exams will be retained by the Student Administration for a period of at least 10 years.

Exemption

Article 17 Exemption application procedure

An application for an exemption from all or part of a course must be submitted to the Board of Examiners in writing, stating the reasons for the exemption request, together with any documentary evidence. The student must attach the recommendation of the examiner concerned to his application. No exemptions will be granted for elective courses.

Article 18 Official date of an exemption

The official date of an exemption will be the date on which the Board of Examiners grants the exemption.

Further rules governing internships and projects

Article 19 Internships

The internship is carried out in a clinical department of which the technological signature corresponds to one of the two specialisations of the master's degree programme.

Article 20 Expired

Article 21 Expired

Additional rules Master's thesis project

Article 22 Master's thesis project

1. The master's thesis project always is the final component of the Master's programme. A student can only be admitted to the master's thesis project if at least 114 EC of the first two years of the master have been completed.
2. The graduation ceremony cannot take place if not all components, except the master's thesis project, have been completed in accordance with Art. 28. The result for the master's thesis project will be announced during the graduation ceremony.
3. In case of an individual double degree, the master's thesis project is a combination of both masters, for which the student writes a joint thesis.

Article 23 Composition of assessment committee for Master's thesis project

1. The Board of Examiners appoints a Master Assessment Committee for each Master's thesis project.
2. A Master Assessment Committee consists of at least three members:
 - Each of the three core members¹ has a doctoral degree and belongs to the scientific/medical staff of a university.
 - At least two of the LDE institutions are represented by a core member.
 - One member is appointed as chairman of the committee². The chairman is a full professor or an associate professor with ius promovendi and is employed by LDE.
 - At least one member has been responsible for the technically-oriented content of the master's thesis project;
 - At least one member has been responsible for the medically-oriented content of the master's thesis project;
 - At least one member has not been involved in the master's thesis project.
4. An extra member shall be added if the student, when registering for the final master's examination, qualifies for the predicate 'cum laude'. This extra member has not been involved in the master's thesis project, belongs to the scientific/medical staff of LDE, and does not work at the same department as the three core members.
5. The committee can be extended with other academic employees who have been involved in the master's thesis project.
6. Experts from outside academia can be added to the Master Assessment Committee as advisors.

¹ Department heads can propose members from their department who do not meet the criteria as members of future Master Assessment Committees. The department head submits a motivation letter with CV to the Board of Examiners from which the qualifications become evident. The Board of Examiners decides whether to make this exception.

² Department heads can propose associate professors without ius promovendi or assistant professors as chairmen of future Master Assessment Committees. The department head submits a motivation letter with CV to the Board of Examiners. The Board of Examiners decides whether to make this exception.

Article 24 Working method of the assessment committee

The Master Assessment Committee assesses the Master's Thesis Project on the basis of the 3mE Master's Thesis (MEP) Grading Scheme.

Article 25 Dating result Master's thesis project

The official date of completion of the Master's thesis project will be the date on which the final oral presentation and defence are given.

Curriculum components completed elsewhere

Article 26 Inclusion in the degree programme

1. Master courses successfully completed elsewhere will only be included in the programme if they were completed during the period in which the student was enrolled on the degree programme. For Master courses completed before the start of the degree programme, an exemption request may be submitted.
2. The number of credits to be submitted for the final master's examination, that are derived from courses for which an exemption has been granted may not exceed 15. The number of credits to be submitted from curriculum components completed elsewhere, may not exceed 15.

Article 27 Provision of information

1. In the event that a student has completed approved components taken outside the degree programme, the student is responsible for ensuring that the authorised agency issues a statement indicating the component in question by name and insofar as applicable by the code of the course, the associated study load (credits), the results, the date on which the results were earned and the date on which the statement was issued.
2. In the case of components taken abroad, the student must request the Board of Examiners to determine the number of credits and the result.
3. The results will be dated according to Article 15 of these Rules and Guidelines. If the statement of subsection 1 does not mention the exact date when the examination has been taken, the result will be dated on the last calendar day of the month in which the examination has been taken according to the statement or on the last day that the student was enrolled in the other study programme.
4. The student must provide the Board of Examiners with relevant information on the progress of the component and its assessment by the authorised body, including a statement on fraud. The Board of Examiners is authorised to request and obtain such information from the authorised body.

Pass/fail rules

Article 28 Pass/fail rules governing the final master's examination

1. To pass the final master's examination, students must have met the following requirements:
 - a. obtaining a result for every course: either a mark, a pass (V), or an exemption (VR);
 - b. none of the marks may be lower than 6.0.
2. The method of assessment will be transparent so that the student can ascertain how the result was reached.
3. In special cases the Board of Examiners may deviate from the provisions of section 1. It will stipulate additional requirements if necessary.

Article 29 Pass/fail rules governing the Honours Programme Master's

To pass the Honours Programme Master's, students must have met the following requirements:

- a. gaining a pass for every component on the Honours Programme Master's;
- b. gaining the minimum number of credits for the Honours Programme Master's.
- c. The duration of study of the Master's degree programme, that is, the period between the student's enrolment on the programme and his or her taking the final examination component, together with the Honours Programme Master's, must not exceed 2 years, allowing for any delays officially recognised in

accordance with the Graduation Support Scheme (RAS) or TU Delft Profiling Fund Regulations. In exceptional circumstances, the Board of Examiners can deviate from this time period in favour of the student.

Conferring the predicate 'cum laude'

Article 30 The predicate 'cum laude' for final master's examinations

1. A student may receive the predicate 'cum laude' for the final master's examination if the Board of Examiners decides to grant this distinction and at least the following requirements have been met:
 - a. the weighted average of the results from the courses, not including the Master's thesis project, must be at least 8.0; passes (v) and exemptions (vr) will not be taken into consideration;
 - b. the number of credits from the courses for which a pass (v) has been earned and/or for which an exemption (vr) has been granted may not exceed 20 credits in total.
 - c. the result for the Master's thesis project must be at least 9.0.
 - d. the duration of study, that is, the period between the student's enrolment on the programme and his or her taking the final examination, must not have exceeded 36 months, allowing for any delays officially recognised in accordance with the Graduation Support Scheme (RAS) of TU Delft Profiling Fund Regulations.
2. In special cases the Board of Examiners may decide to grant the predicate 'cum laude' to a student who does not meet the requirements referred to in section 1 if the student in question has shown exceptional skills in the degree programme in question.

Article 30A cum laude regulations per academic year

Students must fulfil the 'cum laude' requirements stated in the RGBE of the year in which they started the Master study programme. The table below contains a summary of the 'cum laude' requirements of recent years.

MSc TM	2018-2019	2017-2018
weighted average	8.0	8.0
thesis grade	9.0	9.0
duration, in months	36	36
max. EC obtained as V/VR	20 EC	20 EC

Degree certificates and results achieved

Article 31 Degree certificate, transcript and supplement

1. A degree certificate will be issued by or on behalf of the Board of Examiners as evidence that the final master's examination has been completed.
2. The certificate shall be signed by the chairman of the Master Assessment Committee on behalf of the Board of Examiners.
3. A supplement in English will be provided, which will in any event indicate the results achieved. A supplement in Dutch can be obtained from the Student Administration on request.
4. The supplement will be provided after the student has uploaded the Master Thesis in the TU Delft Repository. An embargo can be placed on a confidential thesis for 2 years, with a possible extension of 3 years, or a public version can be uploaded.

Article 32 Statement of results achieved

1. A student who has successfully taken one or more exams, and to whom the degree certificate within the meaning of Article 31 cannot be issued when he leaves the university, will receive a statement from the Board of Examiners upon request. This statement will include personal data, course code, course name, number of credits, the result, and the date on which the result was attained.
2. A statement as referred to in section 1 must be requested from the Student Administration.

Appeal and final provisions

Article 33 Appeals against decisions made by the Board of Examiners

Appeals to the Examinations Appeals Board referred to in Section 7.60 of the Higher Education and Research Act (WHW) against decisions made by the Board of Examiners and/or an examiner may be lodged up to six weeks after the decision in question has been made known to the individual concerned. The Board of Examiners will refer to this possibility of appeal in its decision.

Article 34 Amendments to the Rules and Guidelines of the Board of Examiners

No amendments may be made to these Rules and Guidelines that apply to the current academic year unless the students' interests remain reasonably unaffected.

Article 35 Unexpected circumstances

Insofar as these Rules and Guidelines do not provide for specific circumstances, the Board of Examiners will make a decision that is in line with these Rules and Guidelines to every extent possible.

Article 36 Entry into force

These Rules and Guidelines shall enter into force on 1 September 2019.

Adopted by the Board of Examiners on 23-08-2019.