

***Rules of the Examination Board  
for the master's programme in  
Chemical Science & Engineering  
as of 1 September 2021***

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## Definition of terms

Paragraph 4 of the general section of the programme part of the student charter, including the education and examination regulations for the master's programmes Advanced Technology, Biomedical Engineering, Health Sciences, Chemical Science & Engineering, Technical Medicine, Applied Physics (hereinafter the general section of the EER), defines the testing procedures. For the rules of the Examination Board the following definitions from Art. 1.2 in the general section of the EER apply:

Exam	An evaluation of the knowledge, understanding and skills of the student, as well as the assessment of the results of this evaluation (Article 7.10 of the WHW); an exam may consist of a number of tests.
Examination Board	The body that establishes objectively and expertly whether a student meets the criteria set in the education and examination regulations regarding knowledge, insight and skills needed for obtaining a degree.
Examiner	The individual who has been appointed by the examination board in accordance with Article 7.12c of the WHW to hold exams and tests and determine their results.
Study unit	A component of the programme as described in Article 7.3, paragraphs 2 and 3 of the WHW. Every study unit concludes with an exam.
Test	An evaluation of the knowledge, understanding and skills of the student, as well as the assessment of the results of this evaluation. A test is a part of an exam. If a study unit has only one test, this coincides with the exam for the unit in question.
WHW	The Higher Education and Research Act (WHW), in the Dutch Bulletin of Acts and Decrees 1992, number 593, and as amended since.

In addition to the definition of terms specified in article 1.2 of the general section of the EER, these Rules of the Examination Board understand the following as meaning:

Student Information System	The system indicated by the institutional administration for the registration of and information on all relevant data on students and programmes, in the sense of the WHW.
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## Article 1 The Examination Board

1. From among its members, the Examination Board appoints a chairperson and a secretary.
2. The Examination Board may be assisted by programme staff, e.g. the programme director, the programme coordinator, the study adviser, and tutors. These parties attend the meeting in an advisory capacity.
3. The Examination Board can request the advice of study advisers and other study counsellors regarding decisions to be made concerning individual students; all information provided on students will be treated as confidential.
4. The Examination Board can, as far as this is not in conflict with the law or with this regulation, decide to delegate some of its responsibilities, possibly subject to limiting conditions, to the chairperson or the secretary of the Examination Board.
5. A staff member of the Centre for Educational Support of the Faculty of Science and Technology (CES-TNW) will attend the meetings of the Examination Board as administrator.
6. The meetings of the Examination Board are closed to the public. The decisions of the Examination Board and the outcome of votes are recorded in the meeting minutes.
7. The Examination Board uses a set of rules which define (1) the composition, (2) the working methods, (3) delegation of responsibilities to the chairperson and the secretary, and (4) the division of duties with respect to testing supervision.

## Article 2 Examiners

1. For the purpose of holding the exams and tests, the Examination Board appoints one or more examiners for each study unit. Only staff members who teach, as well as non-university experts can be

appointed as examiners (WHW Art. 7.12). If there is more than one examiner, one of them is appointed as the responsible examiner. The responsible examiner determines the result of the exam for the entire study unit (elaboration of 7.12c paragraph 1).

2. The chairperson of the Master's final project committee acts as the responsible examiner for the Master's final project.
3. The examiners will provide the Examination Board with the requested information (WHW Art. 7.12c paragraph 2).

### **Article 3 Contents and form of exams and test format**

1. Before an examiner holds a written test, at least one other qualified lecturer assesses whether the proposed test is sufficiently representative, whether the questions have been clearly stated, and whether the level of difficulty is in accordance with the programme.
2. The description in the course catalogue defines whether the final assessment of a subject is in writing, oral or by means of another method.
3. The assigned examiner may decide to deviate from the provisions in paragraphs 1 and 2 of this article, in favour of the student.
4. The student can request another testing method from the Examination Board than the method determined in the second paragraph of this article.

### **Article 4 Written and oral tests**

1. A written test has a maximum duration of 3 hours; the maximum for an oral test is 1.5 hours. Deviation from this rule is possible in the case of students with a functional impairment, in accordance with Article 7.1 of the general section of the (MSc) EER.
2. Written tests are assessed on the basis of pre-defined standards for the various assignments or partial assignments of the test. The student is informed of the maximum score for each assignment in a written test by adding this information to the assignment in the test.
3. Oral testing is open to the public. This is subject to the provisions in Article 4.4 paragraphs 2 and 3 of the general section of the (MSc) EER.
4. The examiner cannot hold an oral test for more than one student at a time, unless agreed otherwise in consultation between the examiner and the students involved. In the case of a project-led course, joint oral testing of a group of students is possible.
5. An examiner who wants to offer students an additional test opportunity requires the permission of the Examination Board (Article 4.3 paragraph 3 of the general section of the EER). The Examination Board has delegated the authority to make this decision and to determine a suitable moment in the timetable to the programme director. The programme director must inform the Examination Board of his decision during the next exam meeting.

### **Article 5 Order during test sessions**

1. For each written test, the responsible examiner assigns one or more invigilators who will ensure that the testing session takes place in an orderly fashion.
2. Only students who have registered for a particular test are entitled to take the written test.
3. All electronic equipment and applications must be switched off during the test session, with the exception of the use of equipment and applications for which the examiner has explicitly given permission.
4. During a test, students must be able to identify themselves upon request by means of a proof of enrolment (student ID).
5. At the start of the test, the student writes his/her name and student number on all test materials.

### **Article 6 Fraud**

1. Fraud is defined as follows:
  - a. The use of more or other materials during a test than those mentioned by the examiner as permitted prior to the start of the test.

- b. The use of materials or assistance or the offering of materials or assistance during a test of which the student knows (or should have known) that this is not permitted. This includes, among other things:
    - i. Cheating during a test, whether or not:
      - by the use of unauthorised materials, such as: books, notes, electronic devices
      - copying from others or allowing others to copy
      - communicating on the test matter with persons other than the invigilators, before handing in the test
    - ii. Forgery.
  - c. Behaviour that the examiner has announced, prior to the exam, will be regarded as fraud, and for which measures have been stated that will be taken should such behaviour occur.
  - d. Plagiarism.
2. The examiner and/or the department must always inform the Examination Board of any possible case of fraud. The Examination Board can, after consulting all parties involved, decide to take suitable measures.
  3. If a student or external student has committed fraud, the Examination Board can revoke that person's right to take one or more tests, examinations or final examinations to be indicated by the Examination Board, for a period to be defined by the Examination Board, for a maximum of one year. In case of serious fraud, the institutional administration can, by recommendation of the Examination Board, permanently terminate the student's enrolment (WHW Art.7.12b paragraph 2). The student will not receive any assessment for the subject unit in which the fraud occurred.
  4. If a student is allowed to take an exam for the subject unit after fraud has been established, the Examination Board can impose the manner of testing of the relevant subject.

#### **Article 7 Rules in the event of an emergency**

1. The Executive Board, or the building manager on their behalf, establishes whether there is an emergency or imminent emergency.
2. Once this has been established, (a part of) the building is evacuated in compliance with the corresponding rules that are in force.
3. The Examination Board is informed by the examiner within one day of the emergency, as stipulated in paragraph 1.
4. If an emergency situation occurs or is imminent, during or shortly before an examination, the following applies: if a crisis situation is imminent before the start of an examination, the examination is immediately postponed. In consultation with the Examination Board, the head examiner sets a new examination time and date. The new examination time and date that has been set within a month (not including holidays) is binding. This is published via the usual means of communication within three workdays after the building has been re-opened.
5. In the event of an emergency or an expected emergency during a test, the following procedure applies:
  - a. The student's name and student number must be stated by students on all examination work (at the beginning of the test).
  - b. Those present must immediately leave the test room, on instruction of the responsible authority or the supervisor.
  - c. All students leave all their test material behind in the test room.
6. The Examination Board is responsible for concluding a test that was interrupted or postponed due to an emergency or imminent emergency.
7. The Examination Board may determine that the lecturer, if this is reasonably possible, determines the final grade on the basis of the (partially) completed work that was handed in, if the students were able to start work on the test.
8. In the event that the Examination Board, on the grounds of paragraph 7, rules that the lecturer cannot determine a final grade, a re-take of the examination interrupted by the emergency situation will be organised for the affected students within a month (excluding holidays) of the crisis situation, provided the aforementioned students had registered for the examination in question.

## **Article 8 Registration and publication of the examination results**

1. Only the examination result is included in the programme information system. If an examination consists of more than one test, the examiner saves the test results in his/her own administration. The students will be informed of their results by the examiner, observing the students' privacy.
2. If a study unit is assessed by more than one examiner, the responsible examiner makes sure that all of the examiners use the same standards for assessment.
3. If the assessment of a written examination results in a (not rounded) grade  $\geq 5$  and  $< 5.5$ , the student may request to have the work assessed by a second examiner. If, after consultation between the two examiners, the assessments still differ, the grade will be the average of the two assessments.

## **Article 9 Flexible programme**

Contrary to the provisions in articles 5, 7 and 8 of the programme-specific appendix, a student can be admitted to taking the master's final examination on the basis of a course list/curriculum proposed by the student (a flexible master's programme in line with WHW Art. 7.3h), provided that this course list is approved by the Examination Board. The following minimum requirements apply for this:

- The total programme scope is 120 EC.
- The master's final project has a nominal study workload of at least 45 EC.

The Examination Board will check that the programme is appropriate and consistent within the domain of the programme and that the level is high enough in light of the intended learning outcomes of the programme.

## **Article 10 Examination results**

1. Students who meet all of the following conditions have passed the master's final examination (WHW Art. 7.10 paragraph 2):
  - All examination elements of the programme have been assessed.
  - None of the examination elements have been assessed with a grade lower than 6.
2. The Examination Board determines on which day the examination results of the master's final examination are dated. This is normally the date of the last study unit that was passed.
3. A student has the right to submit a substantiated written request to the Examination Board to delay the graduation date and consequently the presentation of the certificate (WHW Art.7.11 paragraph 3, EER Art. 5.2 paragraph 3). In this request the student must at least indicate the desired duration of the delay. In case the student requests for a delay of the final examination, the new graduation date will be determined by the Examination Board. The student will be informed of the possibility to postpone the official passing of the examination in a confirmation letter he/she receives when the 'MSc final project contract and course list Chemical Science & Engineering' has been handled by the Examination Board.  
The request must be submitted together with the 'Application form for MSc colloquium Chemical Science & Engineering'.
4. The provision in paragraph 1 of this article also applies in case of a flexible master's final examination as outlined in Article 9 of these rules.

## **Article 11 Exceptional ability**

During the graduation ceremony, the master's certificate may be issued with the designation 'cum laude'. For this, the Examination Board assesses all results during the full master's programme, using the following minimum conditions for qualifying for the designation 'cum laude':

- a. The not rounded and unweighted average grade for the elements of the master's final project is 9 or higher.
- b. The not rounded and unweighted average grade for the other parts of the master's final examination is 8 or higher.
- c. The grade for no more than one study unit was 6.0.
- d. The student has completed his/her master's programme within a maximum of three years. In case the student follows a two-master's programme, the student must have completed his/her master's programme within a maximum of four and a half years.

## **Article 12 Master's final project committee**

1. A master's final project committee is composed for the supervision and assessment of the final project. The chair of the final project committee is responsible for composing the committee.
2. The composition of the master's final project committee must be approved by the Examination Board (Article 5 of the programme-specific appendix to the master EER).
3. The master's final project committee consists of at least three members. The committee must meet the following conditions:
  - The committee is chaired by the professor of the chair in which the student is doing his/her final project. In case this chair is represented in the discipline committee Chemical Science & Engineering, the committee may also be chaired by an associate professor of this chair.
  - The student's daily supervisor during the master's final project is a member of the committee.
  - The student's daily supervisor is a member of the permanent or temporary academic staff of the aforementioned chair.
  - If the daily supervisor is a PhD student, the staff member who is the supervisor of the PhD student must also be a member of the committee.
  - At least one member of the committee must be a member of the permanent academic staff of another chair than the aforementioned chair in which the final project is carried out. This other chair should be represented in the discipline committee Chemical Science & Engineering.
4. Academic specialists from outside the Chemical Science & Engineering department or outside the university can be members of the final project committee.
5. If the final project is carried out at another university or research institute, a representative of that organisation must be involved in the final project committee, as an advisor or as an academic member.
6. In accordance with article 7 of the programme-specific appendix of the master EER a student can follow a two-master's programme which involves a joined master's final project and a joined internship and job orientation project. The study load of the joined master's final project is 60 EC.

## **Article 13 Choice of final project, course list and graduation procedure**

1. If a student has decided in which chair he/she wishes to do his/her final project:
  - The final project must be a subject in the area of the discipline Chemical Science & Engineering. The project should be carried out in a chair of the university. If the project is not carried out in a chair that is represented in the discipline committee Chemical Science & Engineering, the student must separately indicate the chemical-technological aspects of the project in the proposal (Article 5 of the programme-specific appendix of the master EER).
  - The student formulates a project description for the final project in consultation with the chair of the final project committee.  
The student discusses the electives on his/her course list with the chair of the final project committee.  
The electives on the course list require authorization by the chair of the final project committee and the complete course list requires authorization by the Examination Board (Article 5 of the programme-specific appendix of the master EER).
2. If the chair where the student wants to do his/her master's final project is temporarily without a (associate) professor, the Examination Board determines who will take over the duties of the chair of the final project committee, in line with Article 12 of these rules.
3. The chair of the final project committee will compose the master's final project committee in line with Article 12 of these rules, within four weeks after the student has requested this.
4. If the chair of the final project committee and the student propose the final project to be carried out outside the university, the following rules are applicable:
  - It is not allowed for the student to carry out the final project at the same company, institute or university as the internship.
  - The chair of the final project committee, the third party and all other final project committee members have to discuss the intellectual property and confidentiality of the project outcomes before the start of the project and, if necessary, have to establish an agreement.
  - The defence should be open for the general public and one copy of the final report should be archived by CES-TNW and be available for the audit committee of the NVAO.

- A communication plan is required which guarantees the involvement of the final project committee in the research project. In this communication plan the frequency, form and the contents of the communications and consultations must be described.
5. The student enters the following information on the form 'MSc final project contract and course list Chemical Science & Engineering'<sup>1</sup> and the included appendices:
    - The composition of the master's final project committee.
    - A description of the master's final project.
    - The course list including results obtained.
    - If applicable, an overview of the units of study that have not yet been completed and a schedule for their completion.
    - A graduation contract including the planned final project start and finish dates, the interim appraisal and interim report dates.
    - In case of a final project outside the university, a communication plan.

The form must be signed by the student and the chairperson of the master's final project committee. If the final project will be carried out outside the university, the chairperson, by signing the contract, indicates to be convinced that the company, institute or university can guarantee the guidance and facilities required for the student to fulfil the final project.

In case the final project involves a confidentiality agreement between the student and a company, the chair of the final project committee must sign a statement on the MSc final project contract and course list wherein he/she guarantees that the student is allowed to comply with the following requirements:

- i. a public defence of the thesis work,
  - ii. to allow the master's final project committee to evaluate the complete assignment work by the student,
  - iii. storing a copy of the complete thesis, in a confidential database, for NVAO auditing committees assessing the programme.
6. Next, the signed form including appendices must be submitted for approval to the Examination Board (c/o CES-TNW) at least one month before the date the student intends to start the final project.
  7. The Examination Board will reach a decision within ten working days after receipt of the 'MSc final project contract' plus digital appendixes by CES-TNW-CHE.
  8. The student will be informed of the decision in writing. All member of the master's final project committee will receive a copy of the decision. If the Examination Board does not reach a decision within four weeks after receipt of the request mentioned in paragraph 5 of this article (excluding holidays indicated in the timetable), the proposal is deemed to have been approved.
  9. The student is not allowed to start the master's final project prior to approval by the Examination Board, in line with paragraph 8.
  10. The chairperson of the master's final project committee is responsible for proper realisation of the master's final project procedure. He/she must ensure that the master's final project agreement is adhered to, which includes an evaluation by the daily supervisor and the student at least once every fortnight, to discuss progress and the direction of the final project.
  11. For the purpose of, among other things, assessment of the master's final project, the student submits a report on progress, the process and the results to the final project committee. The final project report must be written in English.
  12. The student carries out a plagiarism scan on the final report by means of plagiarism software made available by the study programme. The student discusses the outcome of the scan with the daily supervisor. On the assessment form of the final assignment, the supervisor indicates that this scan has been performed and that no plagiarism has been detected.
  13. The student defends the master's final project report in a colloquium before the final project committee. The colloquium is open to the public and must be held in English.
  14. No later than four weeks prior to the planned date of the colloquium, the student must complete and submit the form 'Application form for MSc colloquium Chemical Science & Engineering' to the Examination Board (c/o CES-TNW).

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<sup>1</sup> This form can be downloaded from the programme's website.

15. The master's final project will be assessed by the final project committee and the assessment will be documented in the 'Master's final project Chemical Science & Engineering assessment form'. The grades stated in this form must be in line with, and must be substantiated by, an assessment in words. If the final project is assessed with an average grade for the two parts of either a 6 or a 9 (or higher than a 9), the final project committee must include a separate justification for the grade on the assessment form.

#### **Article 14 Internship procedure**

1. All internships are coordinated by the internships office of the Faculty of Science & Technology.
2. The internship will be with a relevant external company, research institute or university, according to the rules set out in Article 5 of the programme-specific appendix to the master EER.
3. The contents of the internship assignment must be approved beforehand by a member of the academic staff of the Chemical Science & Engineering department. He/she will also act as the supervisor for the University of Twente.
4. The internship assignment will be assessed by a member of the academic staff involved in the Chemical Science & Engineering programme, in consultation with the local supervisor.
5. In accordance with article 7 of the programme-specific appendix of the master EER a student can follow a two-master's programme which involves a joined master's final project and a joined internship and job orientation project. The following rules concerning the internship and job orientation project apply in this case:
  - The study load of the joined internship and job orientation project is 30 EC, the joined internship and job orientation project should have two assessors. The two assessors should originate from and be representative for the two master's programmes concerned.
  - The internship and the examiners should meet the requirements of the Examination Board.

#### **Article 15 Effectuation**

These regulations will come into effect on 1 September 2021 and replace the regulations dated 30 August 2020.

**Established by the Examination Board for Chemical Science and Engineering,**

Enschede, 24 August 2021