

# **Rules and Regulations**

**Master of Science Programmes**

**Biobased Materials**

**Imaging Engineering**

**Systems Biology**

**2023-2024**

**Maastricht, 24 August 2023**

**Faculty of Science and Engineering**

***MSc Biobased Materials, Imaging Engineering and  
Systems Biology***

*Rules and Regulations governing the exams and final examinations for the Master of Science Programmes BioBased Materials (BBM), Imaging Engineering (MIE) and Systems Biology (MSB) of the Faculty of Science and Engineering (FSE) of Maastricht University (UM). The Rules and Regulations have been approved by the Board of Examiners*

*of the Maastricht University Sciences masters and take effect on September 4, 2023.*

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## Article 1: Applicability of the Rules and Regulations

1. In accordance with Article 7.12b of the Dutch Higher Education and Research Act (WHW), the Board of Examiners (BoE) has formulated these Rules and Regulations for the execution of its tasks under the Dutch Higher Education and Research Act (*Wet op het Hoger onderwijs en Wetenschappelijk onderzoek/ WHW*). These Rules and Regulations apply to the education, exams and final examinations of the full-time Master of Science programmes in Biobased Materials (BBM), Imaging Engineering (MIE) and Systems Biology (MSB), hereafter called the programme, and as further defined in the Education and Examination Regulations (EER) of the Master of Science programmes.
2. The Rules and Regulations apply to all students who are registered for any of the above-mentioned Master of Science programmes and to students from other programmes, faculties or institutions of higher education as well as contract students, insofar as they follow components of the programmes to which these Rules and Regulations apply.
3. The Rules and Regulations are adjusted for each academic year and enacted by the BoE.

## Article 2: Definitions

The definitions contained in Article 1.1 of the Dutch Higher Education and Research Act apply to the Rules and Regulations. These definitions are identical to those adopted in the Education and Examination Regulations EER of the programme.

## Article 3: Tasks of the Board of Examiners

The BoE executes the tasks laid down in the Dutch Higher Education and Research Act (*WHW*).

## Article 4: Appointment and composition of the Board of Examiners

1. The Dean installs the BoE and appoints its members on the basis of their expertise in the field of the programme.
2. The BoE has at least one member who is a lecturer in the programme.
3. The BoE has one external member, who is not involved in education in the programme.
4. One member is appointed as chair of the BoE; a vice-chair substitutes for/takes the duties of the chair in cases of (potential) conflicts of interest or when the chair is unable to respond or act in time.
5. The BoE is supported by a secretary.

## Article 5: Working method and decision process of the Board of Examiners

1. The BoE meets at least 6 times a year.
2. The meetings of the BoE are not public, because of the confidential nature of matters discussed.
3. Students' requests sent to the BoE must include the following elements:
  - a. a detailed motivation;
  - b. an updated or adjusted study plan approved by the Study Advisor;
  - c. the most recent transcript of the student's grades.
4. The BoE decides on the basis of majority votes. The quorum for a BoE decision or ruling is 75%. In the event of an undecided vote, the (acting) chair's vote is decisive.

5. If a request or complaint submitted to the BoE involves an examiner who is a member of the BoE, the examiner concerned will abstain from deciding on the request or complaint as stated in art. 7.12b.4 of the Dutch Higher Education and Research Act.
6. The BoE may delegate clearly defined duties to (sub-) committees.
7. The BoE can delegate decision power to individual Board members.
8. The secretary to the BoE is charged with looking after the day-to-day affairs of the BoE.
9. The secretary to the BoE may provide standardized advice based on the EER, the Rules and Regulations and/or the jurisprudence of the BoE.
10. Only complete and correctly submitted requests and complaints will be accepted for processing (c.f. 5.3).

## Article 6: Examiners

1. The BoE appoints examiners for curriculum components or parts thereof. Examiners are appointed to a specific educational course.
2. Examiners are responsible for the following tasks:
  - the design of exams, answer keys and/or assessment in accordance to assessment cycles documented in the assessment policy;
  - the determination of results;
  - determining the time(s) and place(s) for exam/assessment inspection of written exams by the students;
  - providing the Office of Student Affairs (OSA) with all the necessary information to award the exam and/or assessment;
  - respond to requests of the Assessment Platform;
  - respond to the course evaluation and act accordingly upon request of the Educational Programme Committee;
  - the design of exams, answer keys and/or assessment in accordance to assessment cycles documented in the assessment policy.
3. The BoE can appoint experts from outside the university as examiners for educational courses.
4. Other members of the scientific staff may participate in tasks associated to an exam/examination; the appointed examiner carries full and final responsibility.
5. Examiners inform students about the format of assessment and exam in a course before the course starts through the student portal, in accordance with Article 15.
6. The BoE may withdraw an examiner appointment when the examiner does not comply with the EER, Rules and Regulations, assessment policy or with guidelines of the BoE, or if the competency of the examiner with respect to the design of exams, the assessment, and the determination of results has proven insufficient on repeated occasions.

## Article 7: Communication

1. The Faculty Board, the Programme Director, the BoE and the examiners use the following means as official communication channels: the student portal, UM Intranet, e-mail through UM addresses and formal letters.
2. All course information, including course descriptions and exam methods, will be made available via the student portal from the start of each period.
3. Changes to course content and/or information will be posted as announcements on the student portal timely.
4. Students carry responsibility for being properly informed on any changes and/or updates to the program (consulting the student portal, UM Intranet, UM e-mail account). Any

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information disseminated via UM e-mail and/or the student portal listed in article 7.1, is assumed to be known to all students.

5. Students that register only for the exam or an exam component are expected to autonomously collect all published relevant information of the course.

## Article 8: Registration for courses

1. A student can only participate in a course of the programme after the student has registered for the course in accordance with the rules in Article 4.3 of the EER.
2. Upon registration for a course in the programme, the student is automatically registered for the first sit exam and (when applicable) the resit, provided all (re)sit requirements are met (as described in Article 16).
3. The student is responsible for verifying the registration for courses and corresponding exams.

## Article 9: Withdrawal from courses

1. A student who wants to withdraw from a course should inform the Office of Student Affairs prior to withdrawal.
2. A student who withdraws from a course within the first week of the start of a course can register for an alternative course offered during that period, and in accordance with the programme's Intended Learning Outcomes (ILO).
3. The alternative choice of a student who has withdrawn from a course and wants to be reassigned to another course can be restricted because of the capacity of other courses on offer in that period. Note that the alternative course can only be an elective course offered in the same educational period.
4. Withdrawal from the Master Thesis Research Project classifies as a change in studyplan and needs approval of the BoE.

## Article 10: Additional or Extracurricular courses; curriculum flexibility

1. A student who wants to register for courses in addition to the regular studyload has to submit a motivated request to the BoE no later than four weeks before the course starts, following the procedure as described in article 5.3.
2. Students need written approval of the BoE before they can register for an additional course.
3. The BoE has discretionary authority to decide whether the additional course counts towards the programme ECs or is considered an extra-curricular course. This is communicated to the student in the final decision by the BoE.
4. Curriculum flexibility comprises: deviating elective course combinations offered within the respective master programme, other institutional (UM) master programmes, or external master programmes with a maximum of 6 EC (EER, article 3.7.3), and in accordance with the programme's Intended Learning Outcomes (ILO). Curriculum flexibility is considered a conscious choice, not a way to circumvent study delays. As such, this explicitly means that courses for which either a *pass*, *fail* or *NG* has been obtained, cannot be removed from the curriculum.

## Article 11: Exemption

1. A motivated request for exemption of participation in a course, as outlined in section 5.11 of the EER, must be submitted to the BoE no later than four weeks before the start of the course, following the procedure as described in article 5.3.
2. In addition, the exemption request must be accompanied by sufficient written information and documentation on the basis of which a requested exemption can be verified.
3. Exemptions can neither be granted for components for which a result has already been issued, irrespective of whether this concerns a *Pass*, a *Fail* or a *No Grade* (NG), nor for components for which the student has been sanctioned for fraud.
4. The BoE will obtain expert (content-related) advice where necessary before taking a decision on exemptions.
5. No grades will be awarded for an exam/examination from which the student is exempted. Exemptions are not part of the GPA.

## Article 12: Grades

1. Grades are awarded on a scale of 1 to 10; a score/result of at least 6.0 (pre-rounding based on two decimals) represents a *Pass*. Grades awarded are rounded to one decimal place.
2. Rules and conditions regarding passing individual assignments and/or exams for any specific course are described in the corresponding course manual.
3. Courses or parts thereof may award a formative score, e.g. in terms of *Pass* or *Fail*.
4. When no result can be assigned, the label *NG* is assigned. A *NG* will be assigned when the examiner cannot assess the level of knowledge, understanding and/or skills of the student as a result of for example fraud/plagiarism (cf Article 22), absence during the official exam without prior notification accompanied by a valid reason, or an incomplete assessment. A *NG* may also result from not meeting the minimum requirements (format) for any particular assignment or exam. An *NG* automatically constitutes a *Fail*.

### Grade descriptors

|                 |  |
|-----------------|--|
| 10.0            | Surpasses expectation                        |
| 9.0             | Outstanding                                  |
| 8.0             | Very good                                    |
| 7.0             | Good   |
| <b>6.0</b>      | Sufficient                                   |
| 5.0             | Insufficient                                 |
| 4.0             | Insufficient                                 |
| 3.0             | Insufficient                                 |
| 2.0             | Insufficient                                 |
| 1.0             | Insufficient                                 |
|                 |  |
| Pass            | ≥6.0; performance meets the minimum criteria |
| Fail            | <6.0; performance below the minimum criteria |
| 'No grade' (NG) | NG constitutes a fail; no credits awarded    |

## Article 13: Grade point average (GPA)

1. The grade list attached to the diploma indicates the final Grade Point Average (GPA) to provide an overall indication of the student's academic performance.
2. The GPA is calculated on the basis of all assessments of courses a student passed and that are registered in the student's progress records and the grade list, a copy of which is attached to the diploma, as part of the programme.
3. The GPA is calculated by weighting the grades obtained for courses according to EC based on two decimals before rounding.
4. Credits obtained through credit transfer and extracurricular credits are excluded from the GPA.

## Article 14: Passes

### *Section 1: Courses*

- a. In addition to a passing grade, the following requirement must have been met: students must have attended at least 85% of all scheduled tutorials to be allowed to take the final exam of the course.
- b. More than 85% tutorial attendance may be required for a specific course, but this must be disclosed in the course manual explicitly.
- c. Each assessment will result in a grade point on the scale mentioned in the EER and Article 12.4.

### *Section 2: Master Thesis research*

- d. In addition to a passing grade, the attendance requirement as stated in the Master Thesis manual must be met.
- e. Each assessment will result in a grade point on the scale mentioned in the EER and Article 12.4.

## Article 15: Attendance requirements

1. In practice, a compulsory attendance of 85% means:
  - for a total of 16 meetings: at least 13 meetings;
  - for a total of 15 meetings: at least 13 meetings;
  - for a total of 14 meetings: at least 12 meetings;
  - for a total of 13 meetings: at least 11 meetings;
  - for a total of 12 meetings: at least 10 meetings;
  - for a total of 11 meetings: at least 9 meetings;
  - for a total of 10 meetings: at least 8 meetings;
  - for a total of 9 meetings: at least 7 meetings;
  - for a total of 8 meetings: at least 7 meetings;
  - for a total of 7 meetings: at least 6 meetings;
  - for a total of 6 meetings: at least 5 meetings;
  - for a total of 5 meetings: at least 4 meetings;
  - for a total of 4 meetings: at least 4 meetings.
2. Attendance in (tutorial group) meetings is recorded for each (tutorial) group by the tutor and submitted to the OSA before the end of the course. Every student has the right to verify the attendance overview before it is submitted to the OSA.

3. Students, who have not met the compulsory attendance requirement and whose absence the coordinator has marked as inexcusable, will not receive a *Pass* for the course concerned.
4. Other educational activities, such as lectures, skills (practicals), projects or workshops, may have a separate attendance requirement that has to be fulfilled in order to receive a *Pass* for the course concerned. This must be disclosed in the course manual explicitly.

## Article 16: Examinations

1. The format of the examination and the different assessments that are part thereof are announced in the course manual before the start of a course.
2. The Procedures for Examinations are described in Appendix F of the EER.
3. Each assessment will result in a grade point on the scale mentioned in the EER as included in article 12.
4. Attendance at and participation in the assessment of a course is mandatory. Failing to attend an exam without prior notification of the course coordinator/examiner, the label "WG" is assigned and automatically constitutes a *Fail*.
5. Attendance and participation in educational activities may be part of an examination when announced in the course manual.
6. The examiner determines the result of a (written) exam within 15 working days of the day on which it was taken and provides the OSA with the necessary information to apprise the student of the result. Results are published on the student portal.

## Article 17: Resit examinations

1. For all assessment elements that are part of the formal, *i.e.* summative, assessment, a resit opportunity is installed, unless specified differently in the course manual.
2. Students who obtained a *Pass* for the course exam cannot take part in the resit-examination.
3. For every course, one exam resit is offered.
4. With the label *NG*, the student automatically registers for the resit, but the right to an extra resit is forfeited.
5. The examiner decides upon format and content of the exam resit.
6. Dependent on personal circumstances (as listed in article 7.2 of the EER), an additional resit can be requested from the BoE. Requests need to be motivated and follow article 5.3.
7. Assessments (sub-exams) passed within a course that the student failed, will lose their validity upon conclusion of the academic year in which these assessments were passed, unless the BoE decides otherwise.

## Article 19: The degree

1. A Master of Science in BBM, MIE or MSB degree is awarded to students who have fulfilled all the requirements of the BBM-programme, MIE-programme or MSB-programme respectively as stipulated in the Dutch Higher Education and Research Act (*WHW*).
2. The degree certificate and/or the accompanying documents will state:
  - the name of the institution;
  - the name of the programme;
  - for MIE: the name of the specialisation
  - the final examination components and the grades obtained for them;
  - the degree awarded;



- the Grade Point Average;
- (if applicable) the distinction;
- the date on which the programme was most recently accredited or was subjected to the new programme test.

## Article 20: Distinction

When the examination for the programme is passed and the certificate belonging to this examination will be awarded, the following distinctions may be added to the results:

1. The distinction *cum laude* will be added when the student has:
  - a course Grade Point Average (*i.e.* excluding final Master Thesis Grade) of 8.00 or higher with two decimals before rounding up, and;
  - a final master thesis grade of 8.0 with two decimals before rounding up or higher, and;
  - obtained a minimum of 120 ECs within the programme, and;
  - no exam/examination resit is on the student's progress records.
2. The distinction *summa cum laude* will be added when the student has:
  - a course Grade Point Average (*i.e.* excluding final Master Thesis Grade) of 9.00 or higher with two decimals before rounding up, and;
  - a final master thesis grade of 9.0 or higher with two decimals before rounding up, and;
  - obtained a minimum of 120 ECs within the programme, and;
  - no exam/examination resit is on the student's progress records.
3. Students who have committed fraud will not be awarded a distinction, unless the BoE decides otherwise.

## Article 21: Appeals procedure

Within six weeks after the decision by the examiner and the BoE is announced, the student may appeal this decision to the UM's Complaint Service Point (CSP). The appeal must be signed, dated and include the name and address of the petitioner. It should also include the grounds on which the appeal is based and a copy of the decision being appealed.

## Article 22: Directive on fraud including plagiarism and fabricating and/or falsifying research data

In this article – which is related to Article 5.15 of the EER – it is, in accordance with Article 7.12b(3) of the Act explained, how the Board of Examiners acts under Article 7.12b(2) of the Act.

1. The Board of Examiners may impose one of the disciplinary measures set down in paragraph 7 of this article if it establishes that students, in any exam or exam component have committed fraud, including:
  - a. have had any aids/devices, resources, text, software or notes at their disposal, or have used aids and/or (communication) devices that were not explicitly allowed, or that were explicitly forbidden in the exam instructions and/or Rules of Procedures for Exams;
  - b. have communicated or tried to communicate with another student without permission from an invigilator, examiner, or Board of Examiners member;
  - c. have copied or attempted to copy from another student, or have provided the opportunity to copy;

- d. have collaborated on a graded assignment, paper or practical, whereas this was not explicitly allowed;
    - e. have posed as someone else or let someone else pose as their;
    - f. have misled, or at least attempted to mislead or provided the opportunity to mislead an invigilator, an examiner, a corrector or the Board of Examiners with respect to the exam;
    - g. have used an obfuscation method in submitted work that is likely to have the effect that plagiarism checking tools do not work optimally;
    - h. have disregarded the instructions of the invigilator or the instructions for the exam (component) such that an unfair advantage might have been obtained;
    - i. have performed actions or omissions which make it impossible in whole or in part to properly evaluate their knowledge, understanding and/or skills.
2. The Board of Examiners may impose one of the disciplinary measures set down in paragraph 7 of this article if it establishes that students have committed fraud, including:
  - a. have falsified the information on mandatory attendance, participation or effort obligation; or had someone else falsify that information; or have signed off on attendance, participation or effort obligation when it was not (fully) met;
  - b. have falsified exam results;
  - c. have falsely obtained, or attempted to, access to an exam;
  - d. have misled an examiner relating to exam (components), registration, or grading;
  - e. have facilitated other students to engage in fraud;
  - f. have fabricated and/or falsified survey or interview answers or research data;
  - g. have breached or attempted to breach the security measures around exams.
3. The Board of Examiners may impose one of the disciplinary measures set down in paragraph 7 of this article if it establishes that students have committed plagiarism in any exam, part or component, including:
  - a. Using or copying their personal or other' texts (including code), data, ideas, other materials or thoughts without adequate reference to the source;
  - b. presenting the structure or central body of thought from others without adequate reference to the source and thus passing it off as their own;
  - c. not clearly indicating in the text (including code), for example via quotation marks or a certain layout, that verbatim or nearly verbatim quotes have been used;
  - d. paraphrasing the content of their own or others' texts without adequate reference to the source;
  - e. copying video, audio or test material, software and program codes from others without adequate reference to the source and thus passing them off as their own;
  - f. copying work from other students and thus passing it off as their own;
  - g. submitting a text that has been previously been submitted for a different component/module, or is similar to a text that has been previously been submitted by oneself or by others, unless explicitly allowed;
  - h. submitting work or assignments acquired from or written by a third party (whether or not for payment) and thus passing them off as their own;

where in all of these provisions "others" and "third party" does not only refer to people but also to generative artificial intelligence such as GPT-x, ChatGPT (Plus), BARD. If the use of artificial intelligence is allowed and/or does not have to be disclosed for a specific use, this is explicitly mentioned in the course materials.
4. During the exam inspection students are not allowed to have communication devices and/or other electronic devices at their disposal, neither to take the exam and answer key outside the room where the inspection takes place nor to copy these documents in any form. Also, students are not allowed to make any modifications to the exam. When the exam inspection is virtually, it is not allowed to make screenshots or record the inspection. The Board of Examiners may impose one of the disciplinary measures set down in paragraph 7 of this article if it establishes that a student did not adhere to these rules.
5. In case of fraud / plagiarism in group assignments, all students in the group are in principle responsible for fraud / plagiarism. If it is unambiguously clear that only specific

students have committed fraud, only the students in question will receive punitive sanctions, but all are subject to corrective sanctions.

6. In the event that the Board of Examiners suspects that a student has committed fraud in any way, the Board of Examiners shall be entitled to start the following procedure: the (acting) chair of the Board of Examiners opens an inquiry into the established facts, and may call in an expert to do so. After this inquiry has been closed, but within 15 working days after fraud has been reported to the Board of Examiners by the examiner(s), the chair will inform the members of the Board of Examiners, and invite the student and the examiner(s) the opportunity to each state their case. Students may have an adviser accompany them. If the Board of Examiners establishes that a student has committed fraud, the Board will declare the relevant exams/assessment and/or attendance registration null and void (label NG) and can impose a measure as set down in paragraph 7. The Board of Examiners will inform the student involved, the examiner and education office regarding this measure and the reason on which this measure is based. This procedure shall take place in accordance with Article 7.12b of the Act.
7. In the cases referred to in paragraphs 1 to 6 the Board of Examiners can declare the results of the relevant exam or part in question and/or the attendance registration invalid, as well as impose the following disciplinary measures:
  - a. a reprimand;
  - b. exclusion from participation or further participation in one or more exams in the programme for a period of at most one year;
  - c. in serious cases of fraud, the Board of Examiners can propose to the UM's Executive Board that the student(s) concerned be permanently deregistered from the programme.
8. Repeat offences of fraud are considered an aggravating circumstance and may result in more severe sanctions. This also includes fraud in components/modules that were taken at other faculties or institutions of higher education. For this reason, UM Boards of Examiners can inform each other if fraud and/or plagiarism has been established in an exam (component) at another programme.
9. Before the Board of Examiners imposes an appropriate disciplinary measure, or makes a proposal to the Executive Board, the student in question is given the opportunity to be heard.
10. If fraud is established, this is included in the student's dossier and, if applicable for the programme in question, a notice of unprofessional behaviour will be drawn up.
11. If, after investigation, it is ultimately determined that the student concerned did not commit fraud, the names will be removed from the correspondence about the alleged fraud and the correspondence will not be included in the student's dossier.
12. The Board of Examiners does not grant exemptions on the grounds of study results obtained elsewhere while the student was excluded from participating in the programme's exams because fraud was committed.
13. A student who was excluded from participation in exams, or whose exam was declared invalid for a component/module due to fraud, is not eligible for assessment in exceptional cases for those components/modules.

## Article 23: Irregularities

If, according to the BoE, one or more exam components or an entire exam have not been taken in the mandatory manner or if an exam component has not been executed properly, the BoE can declare the exam or the relevant component(s) invalid, even in cases when the student is not accountable, in order to secure its legal duty as stated in Article 7.12b (1)(a) of the Act.

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## **Article 24: Amendments**

1. Amendments to these Rules and Regulations shall be determined by the BoE by means of a separate decision.
2. Amendments to the Rules and Regulations will not be made throughout the academic year, unless it may reasonably be assumed that the interest of the students will not be harmed as a result, or when necessary to ensure the quality of the exams.

## **Article 25: Hardship clause**

The BoE is authorized to deviate from these regulations in individual cases if strict adherence to these regulations would result in inequitable circumstances for the student.

## **Article 26: Execution and Date of Commencement**

In all cases for which the present Rules and Regulations do not provide, the BoE will decide. These Rules and Regulations will take effect on September 4, 2023 and stay in force for the academic year 2023-2024, up to and including September 1, 2024.

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## Appendix 1: BBM, MIE and MSB Master Thesis Rules and Regulations

### Description

The curricula of the Biobased Materials, Imaging Engineering and Systems Biology Masters culminate in a Master Thesis research project (from hereon termed: Master Thesis). This part of the curriculum is a final proof- of-capability for the Master students. It allows the students to demonstrate that they have gained sufficient knowledge, competences and skills to perform scientific research and become an independent academic qualified for employment in research and the professional field. During the Master Thesis, the students prepare for the next step in their career. The Master Thesis project comprises 4 weeks of Master Thesis proposal writing and research planning, and 28 weeks of Master Thesis research (total of 32 weeks between work and time to schedule presentations) of the second year of the curriculum and accounts for 48 EC of the Master degree.

### Responsibilities

#### For Internal (UM) Master Thesis projects

Internal Master Thesis projects take place at Maastricht University's facilities with a supervisor that is well-versed in the grading system used at UM (including the use of rubrics) and is University Teaching Qualification (UTQ) certified, or actively engaged in acquiring UTQ certification.

#### 1. **First examiner/principal research supervisor**

A UM staff member who has a PhD degree and who is UTQ certified or actively engaged in acquiring UTQ certification. First examiners will be officially appointed by the Board of Examiners (BoE; according to Dutch law concerning higher education). The first examiner should be a content expert on the topic/application and/or methodologically. The first examiner/ research advisor bears the final responsibility for:

- daily supervision within a research group
- assessment of the Master Thesis research proposal
- the midterm and final assessments
- assessment of the final Master Thesis report
- assessment of the presentation and defence
- appointment of a stand-in at the onset of the Master Thesis project. A stand-in meets the same qualifications (PhD, UTQ) as the research supervisor and acts to safeguard continuity of the training period whenever the appointed research supervisor is (temporarily) unable to fulfil his/her duties. The stand-in can be made responsible for daily supervision and may be asked to act as guest assessor in the defence panel/jury.

#### 2. **Second examiner**

UM staff member who has a PhD degree and is UTQ certified or actively engaged in acquiring UTQ certification. The second examiner is required to be knowledgeable in the broad subject field of the programme and is expected to deliver independent assessments of the various elements of the Master Thesis work. Second examiners will be officially appointed by the BoE (according to Dutch law concerning higher education). The second examiner bears the responsibility for:

- assessment of the research proposal
- assessment of the final Master Thesis report
- assessment of the presentation and defence

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### For external thesis projects

External thesis projects take place abroad, in industry, or at a non-UM research facility.

#### **3. External research supervisor**

Students participating in research projects abroad, industry or any external (non- UM) research facility will be assigned an external research supervisor. The external research supervisor is a lecturer, assistant/associate professor, or scientist not employed by the UM who ideally functions as the principal researcher in the project. This role is only present in case of an external Master Thesis-training period. The external research supervisor bears the responsibility for:

- Daily supervision within the external research group/company.
- Providing suggestions and advice to the institutional examiner regarding student standing and performance on proposal, midterm assessment, written Master Thesis and oral defence assessments.
- Appointment of a stand-in at the onset of the Master Thesis work. A stand-in meets the same qualifications as the research supervisor and acts to safeguard continuity of the training period whenever the appointed research supervisor is (temporarily) unable to fulfil his/her duties. The stand-in can be made responsible for daily supervision and may be asked to act as guest assessor in the defence panel/jury.

#### **4. Institutional (first) examiner**

Students participating in research projects abroad, industry or any external (non- UM) research facility will be assigned an Institutional (UM) (first) examiner.

- Institutional examiners will be officially appointed by the Board of Examiners (BoE; according to Dutch law concerning higher education).
- All proposed assessments will be critically evaluated by the institutional first examiner, who is responsible for the final assessment.

Duties include:

- assessment of the research proposal
- the midterm and final assessments
- assessment of the final Master Thesis report
- assessment of the presentation and defence

#### **5. Master Thesis coordinator**

- UM staff member who has a PhD degree and is UTQ certified.
- The Master Thesis coordinator coordinates the Master Thesis period and monitors the contacts and ongoing student projects.
- The Master Thesis coordinator keeps track of the whereabouts of the students and the different assessment elements and is responsible for solving problems as these may arise during the Master Thesis period.
- The Master Thesis coordinator is responsible for approving Internships, and upon potential consultation with first examiners for the assignment of second examiners.
- The Master Thesis coordinator appoints a backup coordinator when needed.
- The Master Thesis coordinator, or a within the programme appointed UTQ certified replacement like the first examiner, chairs the Master Thesis defence to a.o. secure the quality and validity of the assessment process.
- The Master Thesis coordinator is supported by the OSA, forming a Master Thesis coordination team. This team will oversee the topic selection process and any administrative issues that may arise along the way. Below is the composition of the Master Thesis coordination team for each Master:

For Biobased Materials:

- Katie Saralidze (Master Thesis coordinator)
- FSE-studentaffairs (student affairs officer, [fse-studentaffairs@maastrichtuniversity.nl](mailto:fse-studentaffairs@maastrichtuniversity.nl))

For Imaging Engineering

- Katie Saralidze and Ron Heeren (Master Thesis coordinators)
- FSE-student affairs (student affairs officer, [fse-studentaffairs@maastrichtuniversity.nl](mailto:fse-studentaffairs@maastrichtuniversity.nl))

For Systems Biology:

- Michelle Moerel (Master Thesis coordinator)
- FSE-studentaffairs (student affairs officer, [fse-studentaffairs@maastrichtuniversity.nl](mailto:fse-studentaffairs@maastrichtuniversity.nl))

**Master Thesis defence panel** or jury. Upon consulting the first examiner, the Master Thesis coordinator composes the jury. The "jury" is composed of the first and second examiner, a chair that is taken by the first examiner, and potential guest assessors. For an internal Master Thesis project, the minimum size of the jury is two UM staff members. In the case of an external Master Thesis project the external research supervisor is added to the jury to provide input. The final grade for the Master Thesis defence is determined by the two independent examiners (first and second), who may include consultation of guest assessors. The first and second examiner sign the Master Thesis assessment form.

### Master Thesis Calendar

The Master Thesis research will comprise 28 working weeks (comprising teaching periods 2-5) followed by the Master Thesis defence in period 6. The academic calendar will be published at the beginning of the academic year on the student portal. The student provides a plan concerning the Master Thesis at least five months before the start of the thesis. The plan should be outlined in the Master Thesis Information and Proposal Form, and comprises:

- a short description of the tentative topic
- information on the receiving university/ institute/ company
- name and contact information of the proposed first examiner
- name and contact information of the proposed second examiner
- name and contact information of the proposed external research supervisor (if applicable)
- In the Master Thesis Information and Proposal Form the student will need to indicate if she/he will follow the study plan delineated in the table below, or deviate from it. In case the student intends to deviate from this plan, please provide an alternative table with your adjusted study plan.

This information is needed to confirm the suitability and scientific character of the proposed Master Thesis as evaluated by the Master Thesis coordinator.

## **Admission to Master Thesis**

All courses preceding the Master Thesis period add up to 72 European Credits (EC; c.f. European Credit Transfer System/ECTS). However, as the assessment of the 12 EC (period 1, year 2) surpasses the standard start of the Master Thesis period, all students who have accrued a minimum of 54 EC, corresponding to the registered year one courses (consisting of all 24 EC for the mandatory courses, 12 EC for both projects and at least 18 EC from elective courses), are allowed to start with their Master Thesis project, specifically Master Thesis proposal writing.

Additionally, before the student starts the Master Thesis Project, the student has to fill the Master Thesis Information and Proposal Form, in consultation with and consent from the thesis examiners. The use of the most recent form provided by the Master Thesis Coordinator is mandatory. The thesis plan needs approval of the BoE before the thesis work can start. If there is a confidentiality agreement, the BoE must confirm that this will not interfere with the assessment.

The standard moment for Master Thesis proposal writing to begin, is the start of period 2 (*i.e.* the end of October of year 2). Master Thesis research can only be started once all 72 EC have been accrued. No other courses can be taken during the Master Thesis project, unless explicit permission has been granted by the BoE. The thesis deadlines and therewith graduation will be adjusted in accordance to the Master Thesis research delay. In case of delay, it is the responsibility of the student to check the availability of the Master Thesis examiners and coordinator in scheduling submission and assessment dates.

## **Assessment Master Thesis**

The Master Thesis is divided into two parts, equivalent to 48 EC:

- Master Thesis practical and professional aspects (aims 2 and 3)<sup>1</sup>
  - midterm evaluation
  - final evaluation (30% of the final grade)
- Master Thesis report and defence (aims 1 and 4)
  - research proposal (10% of the final grade)
  - written report (30% of the final grade)
  - presentation and defence (30% of the final grade)

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<sup>1</sup> for programmes using Research Portfolios, the Master Thesis execution includes the Portfolio that has to be passed (pass/fail) . More information in the Portfolio manual.



| Graded course component  | Weight (%) | Passing norm | If failed  |
|--------------------------|------------|--------------|--|
| Research proposal        | 10         | ≥ 6.0        | Resubmit on resit date or according to updated and by BoE approved study plan    |
| Midterm evaluation       | 0          | none         | formative, cannot be failed  |
| Written report           | 30         | ≥ 6.0        | Resubmit on resit date or according to updated and by BoE approved study plan    |
| Final evaluation         | 30         | ≥ 6.0        | Re-assessed on resit date or according to updated and by BoE approved study plan |
| Presentation and defence | 30         | ≥ 6.0        | Re-assessed on resit date or according to updated and by BoE approved study plan |

Each grade is rounded to the nearest 0.1 decimal. The final grade for each thesis part is the weighted average, rounded to the nearest 0.1 decimal. The final grades will be assigned through the 'Final Assessment' sheet.

### Master Thesis Resit

In case the student fails to submit an assignment and/or performs insufficiently, a resubmission or re-assessment date will be offered as resit (see schedule table). Failure to submit the required files including the Master Thesis Information and Proposal Form (according to the deadlines communicated within the programme) without prior notification of the responsible programme coordinator will automatically result in an NG; the right to an extra resit is forfeited.

All thesis components and assessment aspects need to be passed with a grade of 6.0 or higher (before averaging). Individual assessments are valid for the period of one year unless decided upon differently by the BoE. Students that fail individual assessments in a resit attempt, will need to restart the master thesis taking into account any programme updates and will need to produce a novel BoE-approved study plan.

### Examiners grading responsibilities

For the different parts of the Master Thesis, the same first and second examiner will be responsible for the assessment and grading, only with slightly different responsibilities for different parts of the thesis:

1. **Research proposal:** The first examiner will assess and grade the proposal using an assessment form and accompanying rubrics, intended for this purpose. In case of an external thesis training period, the external research supervisor will propose a grade. This proposed assessment is then submitted to the first examiner who is responsible for critically evaluating and accepting/rejecting the assessment. The second examiner makes sure the first examiners evaluation is in alignment with the quality of the proposal.
2. **Practical execution of the research:** the first examiner will assess and grade the midterm and final practical execution of the research. The grade will be discussed with the student in a meeting where the first examiner, second examiner (optional), and the

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student are present. In case of an external thesis training period, the external research supervisor will propose a grade, and the first examiner is responsible for critically evaluating and accepting/rejecting the assessment. The thesis coordinator should ensure that there are no conflicts between parties involved in student assessment (if more than one) and that performance and grade assessment are aligned

3. **Written thesis:** The first and second examiner will independently assess and grade the Master Thesis. In case of an external Master Thesis training period, the external research supervisor will advise the first examiner regarding the quality of the student's Master Thesis. The first examiner is responsible for critically evaluating and accepting/rejecting the proposed grade. In case of a substantial discrepancy in grading of the written report (defined as more than 1.5 grade point difference, or a discrepancy in *Pass* and *Fail*) the Master Thesis coordinator may consult one additional UM staff member not directly associated with the research (third examiner). The final grade based on an extra, independent assessment is defined by the weighted average of all three grades.
4. **Presentation and defence:** the candidate presents the Master Thesis research in public (unless confidentiality restrictions apply) and orally defends the Master Thesis in front of the appointed jury.

#### **Confidentiality agreements with companies, organizations and institutes**

In case the Master Thesis research contains confidential information, an independent internship agreement between the UM Master Programme and the internship organization/institute will be needed (refer to intellectual property form). The Master Thesis coordinator will consult the BoE. The BoE or FSE Dean approval is mandated to safeguard that none of the confidentiality agreements interfere with participation in the educational program and educational progress of the student. The thesis confidentiality agreement will then be attached to this agreement as Annex, describing the required educational assignments that are needed for the student to graduate (research proposal, midterm and final evaluation of practical work, written report, and presentation/defence). These will have to be made available to members of the UM teaching staff (i.e. at least two examiners and the Master Thesis coordinator) in order to perform a proper assessment of the performed work during the Master Thesis research/internship.