

UNIVERSITY OF TWENTE.

# **Guideline**

# **Master Mechanical Engineering**

Enschede, 1 September 2023

## Table of Contents

|   |    |
|---|----|
| Step 1: Register your specialisation.....                             | 3  |
| Step 2: Enrolment .....   | 4  |
| Step 3: Internship.....   | 4  |
| Step 4: Graduation Assignment.....                                    | 5  |
| 4.1 Registration of start .....                                       | 5  |
| 4.2 Contract and confidentiality .....                                | 5  |
| Step 5: Completing your Master .....                                  | 6  |
| 5.1 Colloquium .....  | 6  |
| 5.2 Reporting.....  | 6  |
| 5.3 Publication.....  | 6  |
| 5.4 Assessment.....   | 7  |
| 5.4.1. Assessment of the Colloquium .....                             | 7  |
| 5.4.2. Assessment of the master thesis.....                           | 7  |
| 5.4.3. Assessment of the oral examination .....                       | 8  |
| 5.5 Timeline.....   | 8  |
| Appendix 1: Checklist Graduation.....                                 | 9  |
| Appendix 2: Procedure Mobility Online .....                           | 10 |
| Appendix 3: Aspects for assessment of the graduation assignment ..... | 11 |
| Appendix 4: Profiles for final grading .....                          | 12 |
| Appendix 5: Assessment Form.....                                      | 13 |

This guide gives you suitable steps to complete the administrative process of your master's programme. It does not contain all the rules and regulations for your educational programme; these can be found in the [Education and Examination Regulations](#) (EER).

## Step 1: Register your specialisation

In the ME master's programme, students choose one of the specialisations offered provided by the various departments of the Faculty. The specialisations are:

- Aeronautics (AER)
- Design and Manufacturing (DM)
- Energy and Flow (EF)
- High-Tech Systems and Materials (HTSM)
- Maintenance Engineering and Operations (MEO)
- Personalised Health Technology (PHT)
- Smart Sustainable Industry (SSI) **from February 2024**

### Only for UT Bachelor Mechanical Engineering students:

Please indicate your profile and specialisation via the [Preference Form](#) on the website before 1 May.

You will have the freedom to compose your programme with a clear focus on one specialisation. However, this programme has to be approved by the professor responsible for education within your specialisation.

The set-up of the curriculum of the master's Mechanical Engineering is as follows:

| FIRST YEAR  | SECOND YEAR                |                        |
|---|----------------------------|------------------------|
| <b>Specialisation courses</b><br>30 EC<br>Choose 6 out of 12  | <b>Internship</b><br>15 EC | <b>Thesis</b><br>45 EC |
| <b>Elective courses</b><br>30 EC<br>Option for interdisciplinary focus: 3 courses outside of ME programme |                            |                        |

You need to choose 30 EC in specialisation courses. Next to that, you are required to choose 30 EC of elective courses. These can be courses that are recommended for your specialisation or courses from other specialisations. In these elective courses, you also can choose 15 EC of master courses from outside the ME programme.

On the [website](#), you will find the forms to register your choices. This form has to be signed by you and the specialisation coordinator. After that, send it to the Educational Affairs Office (BOZ), and they will take care of the signature from the programme director.

Deadline for handing in your study programme:

|                 |                  |
|-----------------|------------------|
| Start September | Before 1 October |
| Start February  | Before 1 March   |

## Step 2: Registration for courses

### Registration for courses

Information on the registration of courses and tests, tracking your study progress and all courses offered at the UT can be found in the student information system OSIRIS. More information on all educational systems can be found [here](#).

After you have registered for a course you will automatically be registered in the adjoining Canvas page where you will find all the additional course information and schedule. You will be also automatically registered for the test and re-sit. In case you pass the test with a sufficient grade you will be automatically deregistered for the re-sit. In case you want to stop the course you have to deregister yourself via Osiris, you have to do this before the exam week of the quartile.

| Quartile | Block | Period  |
|----------|-------|---|
| 1        | 1A    | 04-09-2023 till 12-11-2023<br>Register for courses from 01-08-2023 until 03-09-2023 |
| 2        | 1B    | 13-11-2023 till 04-02-2024<br>Register for courses from 16-10-2023 until 12-11-2023 |
| 3        | 2A    | 07-02-2024 till 28-04-2024<br>Register for courses from 08-01-2024 until 06-02-2024 |
| 4        | 2B    | 29-04-2024 till 07-07-2024<br>Register for courses from 01-04-2024 until 28-04-2024 |

### Change of courses

When you decide, in consultation with your specialisation coordinator, to change one or more of the courses of your study programme, you need to fill in the form “change of master courses” or provide an entirely new study programme, which you can find [here](#). Please don't forget to add your original study programme so we can easily see the differences.

## Step 3: Internship

All specialisations of the Mechanical Engineering master programme (ME) include an obligatory internship. However, students who have considerable industrial experience or have already completed an internship during their (HBO) Bachelor's degree are not required to do an internship in the master's programme. Instead of an internship, they are required to follow additional (pre-)master courses.

### Start of the internship

The period of the internship is situated between the coursework and the master's assignment. This means that you will most likely start your internship at the beginning of the second year of your master's programme. **Note that you have to have finished at least 40 EC of your master's programme!** Although you are supposed to find a suitable internship yourself, the internship coordinator of the Faculty of Engineering Technology can support this matter. More information can be found on our [website](#).

### Approval of the internship

At the start of the internship, a UT internship supervisor is appointed to the student, the department is responsible for this. Before you can start with your internship you require the approval of your UT internship supervisor.

### Registration in Mobility Online

You are obliged to register for the internship in Mobility Online. Only after the approval of the UT internship supervisor and a correct registration in Mobility Online, the internship will be part of your study programme. After your registration in Mobility Online, you will be registered on the internship Canvas page. All information regarding the internship can be found there. Further practical information about the internship and/or the subsidy regulations is available via the Mechanical Engineering internship coordinator: [https://www.utwente.nl/en/me/master\\_programme/student\\_mobility/](https://www.utwente.nl/en/me/master_programme/student_mobility/)

## Step 4: Graduation assignment

### Start of the assignment

The graduation assignment is the final part of the master's programme. With this assignment, you will prove that you can function on an academic level and deliver a valuable contribution to the research field within your chosen specialisation. Besides the proof of ability, the learning effect is most important; you will work independently on an academic level for the first time amidst colleagues with more seniority.

### The entry requirements for the start of the master's thesis:

1. You have completed at least 60 EC of courses denoted in the signed registration form
2. You have finished your internship by handing in the report to your UT internship supervisor
3. You have completed all the pre-master courses in your master programme successfully (if applicable)

If you don't meet the entry requirements, your supervisor will be informed, you will have to consult your specialisation coordinator and have to ask permission from the Examination Board to start with your graduation project.

### Duration of the master thesis

The duration of the master thesis corresponds to the applicable study load, 45 EC, for the master thesis. 45 EC equals a workload of 40 hours a week for 8 months (not counting the academic holidays). Your thesis should not take longer than 12 months. You will be monitored during this period and **if the thesis time passes 12 months you should ask permission from the Examination Board for an extension**. Please be aware that if the extension isn't given, you are required to start a new thesis project. Please find all the information regarding this regulation in the [EER](#)

### Internal or external assignment

You can choose to take an internal assignment provided by the UT or an external graduation assignment provided by another university, research institute or company. In general, but especially for an assignment outside the university good planning and clear appointments are required. The first step in both cases however is to **contact your specialisation coordinator that you want to start with your graduation assignment**.

### Agreements

Before the assignment starts you will have to set up agreements on the starting date, duration and/or end date of the assignment and the intensity of supervision with your UT supervisor. If the assignment is carried out externally, the UT supervisor is responsible for the appointment of an external supervisor within the hosting university, institute or company. The UT supervisor is responsible for the content and scientific level of the assignment and also has to ensure the assignment can be carried out within the set period.

When the assignment has been selected and agreements have been made, you have to take the following steps:

1. Set up terms of reference containing all agreements concerning the assignment made with your UT supervisor.
2. Register in [Mobility Online](#) in the Graduation extended pipeline (see Appendix 1 for the procedure)
3. Make agreements on finishing courses/subjects still left open. Please note: all courses and the internship need to be completed before the colloquium
4. Determine the working hours in correspondence with the supervisor.
5. Agree upon the frequency of progress reviews with the UT and/or external supervisor.
6. Set up an initial plan.

For more information on the regulations for graduation please check the [EER](#)

## 4.1 Contract and Confidentiality

### Assignment agreement

When doing a thesis project with an external organisation some formalities may require signed agreements such as a contract. Unless the host organisation requires you to use their format, please use the format from the Faculty of Engineering Technology as found on our [website](#). This format is a three-party agreement in which the representative of the host organisation, the Managing Director of the University of Twente and you sign for the part he/she is responsible for. The signed contract (by you and the company) should be handed to Astrid Oppers-van den Berg ([a.j.vandenberg@utwente.nl](mailto:a.j.vandenberg@utwente.nl)). She will send the contract to the Managing director for the ET faculty and will make sure that you receive the signed contract.

### Confidentiality

While working on your project, you might receive confidential information. In all cases, you are expected to deal with such information carefully. Keep in mind that you are not to discuss confidential information with fellow students, relatives etc.; do not leave laptops unattended and ensure that USB sticks with confidential information on them are not shared. Early agreement on confidentiality with your supervisor and/or your host organisation is essential to avoid conflicts at a later stage.

The University of Twente intends to avoid formal confidentiality agreements as much as possible. However, if an external organization insists on having a confidentiality agreement, preferably use the confidentiality agreement proposed by the university. Because only the managing director can sign confidentiality agreements, please go through the following procedure:

- UT supervisor and programme director determine whether confidentiality is acceptable;
- UT-supervisor fills out the confidentiality agreement form;
- Confidentiality agreement form and the advice of the programme director on confidentiality are sent to Astrid Oppers-van den Berg: [a.j.vandenberg@utwente.nl](mailto:a.j.vandenberg@utwente.nl) for the arrangement of the signature by the managing director.

Sometimes a host organisation insists on using their format of a confidentiality agreement, for this, the above-described procedure is also applicable.

## Step 5: Completing your master

### 5.1 Colloquium

The completion of your master's study starts with an announcement of your public presentation (colloquium) of your thesis and defending this in front of a graduation committee. The graduation committee consists of at least three members authorised to conduct examinations; one of the full professors from the relevant Department is chairman of the graduation committee. At least one member is from the permanent academic staff of the UT from outside the Department, chair or section where the student does his graduation work. The Examination Board can invite a professor from outside the Faculty to function as chairman of the graduation committee.

The graduation committee can be supplemented with external members, particularly if your thesis project is carried out externally, but occasionally also for internal projects. If the master's project is performed externally, you will have (at least) one daily supervisor from the external organisation, who will be a member(s) of the graduation committee. Members from outside the university only have an advisory role in the assessment.

For the colloquium announcement consent of your UT supervisor is required. The graduation report is submitted to the chairman of the graduation committee for review. If the graduation report is approved, you will receive a statement that can be used to apply for the final examination. If the graduation report is not (yet) approved, you will be informed what additions and/or changes to the master thesis or the graduation report are required. A new date is set on which the revised graduation report must be handed in. If necessary, this procedure is repeated.

With consent on the colloquium announcement and the proposed composition of your graduation committee (discussed with your supervisor), you can make an appointment for the date of your colloquium with the secretary of the chairman of your committee. This should be done at least four weeks before the colloquium will take place, to allow for adequate settlement of administrative affairs. The colloquium announcement itself, containing the composition of your graduation committee, can be handed in via the menu on [this website](#). With the signature of the chairman of the graduation committee, the approved announcement will be sent to the Office of Educational Affairs (BOZ).

## 5.2 Reporting

A printed (hard) copy of the complete report is submitted to all members of your graduation committee. The deadline for handing in copies of your report to the members of your graduation committee is two weeks before the date of your colloquium. Added to your report is a plagiarism report to make sure that the work that you provided is your own. The plagiarism report can be done via Turn-it-in. Your supervisor can arrange an account for this, with this account they will be able to log in to: <https://utwente.turnitin.com> and check your report.

## 5.3 Publication

Setting aside any considerations on confidentiality, the thesis project is a way to demonstrate that you master the academic level of the education programme. Moreover, you want to be able to communicate on your thesis project without being hampered by confidentiality issues. For these reasons, you are required to hand in the thesis report and a summary of your academic work in the form of an academic publication. This publication is a publicly available description of the academic content, impact and valorisation of your work and cannot be confidential. The publication will, for example, be used to build the portfolio of thesis projects. Where appropriate, it might be published (or be used as the basis for a publication) in a scholarly environment. The deadline for handing in the publication to your UT supervisor is two weeks before the date of your colloquium. Also upload your thesis to the UT repository: <https://essay.utwente.nl/upload.html>

## 5.4 Assessment

### Assessment of the Colloquium

The colloquium is a public presentation to a varied audience. It is not a mere summary of the graduation thesis but focuses on the research area and the problem-solving method and results. The content of the colloquium needs to be reconciled with the internal supervisor. If it contains confidential information, the presentation should be approved by the external supervisor beforehand. Be aware that confidentiality can be a disadvantage for you as a student because showing your competence will be more complicated.

### Some tips

1. The chapters and structure of the final report are seldom a proper outline for the colloquium. The following structure is therefore recommended:
  - a. The first part of the colloquium should provide a complete overview of the research area. Explain the research project, the goals and problems, if possible, in a non-technical manner. This should take no more than 10 minutes;
  - b. The most important part will take about half an hour and will cover the results of the work done as well as the encountered problems and challenges. Do not go too much into technical detail, but provide outlines and use a logical order in the structure. This part of the presentation should mainly be addressed to the assessors and not to the general audience.
  - c. The final part of the colloquium should consist of the main conclusions and recommendations for future research and should take about 10 minutes.
  - d. After the presentation there will be roughly 15 minutes for questions from the audience.
2. It is important to present an interesting colloquium. Elaborate on relevant concepts and do not go into too much technical detail. Make a distinction between the main and side issues and limit the main issues to about 45 minutes. Show that you are in control and that you know the subject of the colloquium.
3. For the presentation, a computer or laptop with a beamer can be used. Arrangements for these materials can be made with the technical services (FD) at the Horst reception desk and a room can be arranged with the help of the Chair secretary. Make sure the media and presentation are present and test them before the start of the colloquium.
4. Visit other colloquia to see how other students present and learn from their mistakes.

### Assessment of the Master thesis

The graduation report serves to inform the graduation committee of the completed assignment. Furthermore, it can be used to inform those who would like to use the results, conclusions and recommendations. These can be successors in the same field of research, members of the laboratory or companies where the assignment might have taken place. Information needed by these people in this case could be business, relevant and efficient data. This means that the thesis should not be a lengthy elaboration on the assignment. On the other hand, it should not be too compact so that the report is accessible to a wide professional audience. The report needs to be written in English and have a summary. Also, it is recommended to have a draft version checked and commented on by fellow students, this can positively affect the quality.

## The structure of the thesis

The thesis usually is set up in two main parts:

1. A general section with a description of the research and a summary.
2. A specific section with the appendices, drawings, etc.

The general section will usually contain about 50 A4 pages in font 11pt (exclusive attachments). A more voluminous report will not always be assessed more positively. The number of pages will depend on the subject and the target group, e.g. employees of a principal company. The report should contain the following aspects:

1. Title page including:
  - a. The report title; should be a compact summary of the report and should be set in agreement with the graduation supervisor.
  - b. The author's name including all initials.
  - c. The month and year of publication.
  - d. The name "University of Twente".
  - e. The name "Mechanical Engineering" and the Chair name.
2. Table of contents.
3. Nomenclature if necessary.
4. Short summary of approximately 100 words.
5. Description of the assignment as agreed upon.
6. Analysis and specification of the problem and the technical relevance of the solution. This should be accompanied by the results of the literature study.
7. Description of the methods used to create a solution, including models, analysis methods and experimental verifications.
8. Results.
9. Evaluation of the work and prognoses, as well as suggestions for further research or application. This includes a discussion of the validity and quality of the found results.
10. Alphabetically ordered list of references. It might be useful to use the software 'End Note' to create such a list.
11. Glossary (to be considered)
12. The appendices include calculations, detailed experiment descriptions, result tables, graphs and drawings.
13. A plagiarism report is added

## Assessment of the oral examination

The oral examination of the assignment will be held by the graduation committee including, if necessary, some internal or external experts. This private meeting will usually be held after the colloquium and will take approximately one hour.

### 5.5 Timeline

|                           |  |
|---------------------------|--|
| 6 weeks before graduation | Contact the graduation professor for arrangements for the colloquium   |
| 4 weeks before graduation | Register for the master's diploma and colloquium at BOZ  |
| 3 weeks before graduation | The grades of all courses, except for the graduation exam, must be handed in at BOZ  |
| 2 weeks before graduation | Have copies of the report & publication, including the plagiarism report, sent to the graduation committee members and one, including the original version, to the Chair secretary   |
| 1 week before graduation  | Have one PDF version e-mailed to BOZ<br>Upload your master thesis to the UT repository:<br><a href="https://essay.utwente.nl/upload.html">https://essay.utwente.nl/upload.html</a>   |
| Graduation date           | Have colloquium and graduation ceremony  |
|                           | When you have completed your master's exam, you will immediately receive your degree certificate.  |
|                           | After the final mark of the master, the exam has been given and processed by BOZ, the diploma supplement is sent as soon as possible (two weeks after the colloquium at the latest). |

If you have any questions on your MSc. trajectory, do not hesitate to contact the programme coordinator:  
[mastercoordinator-me@utwente.nl](mailto:mastercoordinator-me@utwente.nl)



## Appendix 1: Checklist graduation

### Starting your master thesis assignment

- Find an assignment – Contact your specialisation coordinator
- In case of graduation with an external organisation;** arrange an agreement, please use the format on the [website](#) and send it to [a.j.vandenberg@utwente.nl](mailto:a.j.vandenberg@utwente.nl) for the signature of the Managing Director
- In case of a confidential report please ensure a three-party agreement is used.** The registration of confidentiality in Mobility Online regarding this is not sufficient nor is an agreement between you and the company as the University is not part of the confidentiality! Send the three-party agreement to [a.j.vandenberg@utwente.nl](mailto:a.j.vandenberg@utwente.nl) for the signature by the Managing Director
- Register in Mobility Online – Use the option [‘Registration form Graduation extended’](#)
- Fill in the proposal form in Mobility Online
  - Be aware of the fact that you have to choose the academic year in which you will execute your assignment.
  - Make sure to register to the correct start date so we can monitor your progress and so that you complete your assignment within the designated timeframe. Please find all the information regarding this regulation in the [EER](#)
  - In the field behind Course code, fill in the Osiris course code of the master graduation assignment:  
**For students with a study programme before 2020**  
40 EC: 191199198    45 EC: 191199197  
**Students with a study programme from September 2020 or later:**  
45 EC: 202000249  
**Students who are doing a double UT master’s programme**  
201900215
  - Tip: if you don’t know your graduation committee yet, fill in the name of your daily supervisor as both the committee chair and UT member.
  - Make sure that your start date is correct so we can track your progress. The end date will be changed accordingly by the programme after your graduation.
  - If your supervisor is not listed please send an email with the name of your supervisor to: [mastercoordinator-me@utwente.nl](mailto:mastercoordinator-me@utwente.nl) so they can be added to Mobility Online.
- Get your proposal form signed by your UT supervisor. **Only one signature is sufficient**, there is no need to provide an additional signature of a second supervisor!
- Upload the signed proposal form to Mobility Online

You will receive a confirmation of application by mail when your proposal form has been approved this will be the case if you meet the following requirements:

- You have 60 EC of MSc courses registered in Osiris
- You have submitted your internship report
- You have provided a company and/or confidentiality agreement (if applicable)
- You have completed all your pre-master courses in the master (if applicable).

When you don’t meet the entry requirements you will receive an email with more information. Your specialisation coordinator and daily supervisor are also informed. If you still want to start, you can submit a request for dispensation to the Examination Board.

### During your assignment

- Schedule regular appointments with your daily supervisor to discuss your progress

### 6 weeks before graduation

- Discuss the composition of your graduation committee with your daily supervisor
- Discuss the date and time of your graduation with your graduation committee
- Check if all your grades are registered in Osiris. Including the grade of your internship.

### 4 weeks before graduation

- Submit the form “Registering Master Diploma” to BOZ (the form is on the website)
- Make a colloquium announcement on the website
- You do not have to update Mobility Online, any changes will be done by the programme after your graduation

**2 weeks before graduation**

- Send (printed) copies of your master assignment & academic publication, including the plagiarism report\*, to the graduation committee
- Send a (printed) copy of your master assignment to the Chair secretary

**1 week before graduation**

- E-mail a PDF version of your master assignment to BOZ
- Upload your master thesis to the UT repository: <https://essay.utwente.nl/upload.html>

\*The plagiarism report can be done via Turn-it-in. Your supervisor can arrange an account for this, with this account, they will be able to log in on: <https://utwente.turnitin.com> and check your report

## Appendix 2: Procedure Mobility Online

All mobility-related topics (i.e. internship and graduation) are registered in Mobility Online. That applies to the registration of the MSc thesis also. The moment you know you are starting with your graduation assignment it is important to register in Mobility Online. If this is not done, you CAN NOT start with your graduation assignment. You can access Mobility Online via the following [link](#)

Below you find the steps that are obligatory for you to take when you start with your master thesis:

1. Fill out the [extended registration](#) form in Mobility Online
2. You will receive an automatic e-mail of your online application after approval from the programme coordinator.
3. Fill out the proposal form and have it signed by the chairman of your assignment committee (your UT supervisor). **Only one signature is sufficient!**
4. Upload the proposal form to Mobility Online.
5. The proposal form will be approved if it is complete. If anything is missing you will receive an e-mail about what you still are required to do. This step will then repeat itself until you provide all the necessary information or meet the missing requirements.
6. Fill out if you want to apply for a scholarship
  - a. If yes, wait for the response from the International Office (continue your further steps at the point below).
  - b. If no, your application in Mobility Online is registered properly.
7. You can now start your master assignment it is your responsibility that all steps are taken!

Students that apply for a scholarship (so answered 'yes' to question 6), please complete these extra steps:

1. After you have applied for your scholarship, the scholarship office will take over and you will have to answer some additional questions.
2. You have to fill out your home address and bank details
3. The scholarship office checks the box for 'scholarship application received'. Once that box has been checked you will receive 75% of the provisional scholarship amount within 2 weeks.
4. 'During the mobility' you have to make sure to register your address and your return date and you have the option to check a box if you want to change anything in your application.
5. The steps 'after the mobility' differ slightly from a master's student that stays in the Netherlands. First, you have to let your external supervisor fill out the letter of appointment which indicated that you were there.
6. Scholarship Office will approve the letter of appointment.

### General remarks:

Every time you hand something in or check off a box you will receive an e-mail from Mobility Online on what needs to be done next. It is your responsibility to check the application regularly and deliver everything that is required on time. If you are experiencing difficulties with Mobility Online or with certain deliverables make sure to get into contact with someone from the programme, preferably your UT supervisor or the programme coordinator. At the end of your graduation you don't have to upload anything in Mobility Online just make sure that you have completed all the required steps in your application. Any changes, if required, will be done by the programme after your graduation.

## Appendix 3: Aspects for assessment of the graduation assignment

### 1) *With respect to content; quality of research/design*

- insight into subject matter
- depth (detailed elaborations, use of literature)
- insight into coherence between different parts of the research project
- reasoning/argumentation of conclusions (are research questions clearly stated and answered?)
- relevance (scientifically, but also applicability in practice) (being able to put research into its context)
- creativity/inventiveness: the extent to which the student independently introduces new concepts
- extent to which the research contributes to new knowledge / contributes to a concrete product, design or model
- learning (quality and quantity)

### 2) *Report*

- composition, structure
- consistency
- clarity/sharpness of formulations
- readability
- editing, layout
- images and tables (usefulness, added value)
- references to literature
- has been checked on plagiarism (plagiarism report added by student)

### 3) *Working process during master thesis project*

- attitude
- independence
- commitment/engagement
- cooperation
- communication skills
- incorporation of feedback
- functioning within the organisation where the project is carried out
- student's attitude during progress meetings (active/passive)
- the extent to which the original research proposal has been met and reasons for alterations (keeping up with a work planning, follow up on appointments made)
- time needed to finish master thesis

### 4) *Oral Presentation and defence*

- content (what is included / not included in the presentation; is the message coming across?)
- structure/outline presentation
- care of details/neatness
- captivating way of presenting (verbal capabilities, posture)

### 5) *Defence*

- insight in subject matter and its relation with adjacent subjects
- answering questions/discussion
- ability to interpret/understand/analyse question

## Appendix 4: Profiles for final grading

### 5. insufficient

The research and/or report are insufficient and the student was strongly directed by his or her supervisors. Weak points can clearly be pointed out. The student did not show an academic attitude. On average, the student scores 'insufficient' on all aspects for assessment.

### 6 – 6.5: sufficient

With respect to content, the research was conducted sufficiently. The report is mediocre. Weak points can clearly be pointed out, but are compensated by aspects on which the student performs better. The student has shown little input of his own and was strongly directed by his or her supervisors. On average, the student scores 'sufficient' on all aspects for assessment.

### 7 – 7.5: satisfactory

With respect to content, a solid piece of research was delivered. The report is carefully edited. Either the research process or the mastery of subject matter leaves room for improvement.

The supervisors clearly had a steering influence on the final product. The student scores at least 'sufficient' on all aspects for assessment and 'good' on some aspects.

### 8 – 8.5: good

With respect to content, the research was set up in a solid way and was carried out accurately. The report is carefully edited regarding language, structure as well as lay out with minimal input from the supervisors.

The student has worked independently and was able to put forward their initiatives. Guidance given by the supervisors was minimal. On average, the student scores 'good' on all aspects of assessment.

### 9 – 9.5: very good

The research is innovative and can be converted to an article for a renowned (scientific) magazine or a conference proceeding without putting in too much effort. With respect to content, the research is very solid with some points that can clearly be pointed out as very good. The report is carefully edited and shows that the student disposes of very good writing skills. The student's input and independence are large. The student clearly stands above the subject matter and is able to defend his or her statements in discussions well. The student scores at least 'good' on all aspects of assessment and 'very good' on some aspects.

### 10: excellent

The student functions at the level of an expert in the field. With respect to content, the research is excellent.

The student is very capable of conducting research independently. The report and the presentation show that the student disposes of excellent communication skills (written and oral). The student scores at least 'very good' on all aspects of assessment and 'excellent' on some aspects.

## Appendix 5: Assessment form

### MASTER'S EXAM:

*Name* :  
*Student number* :  
*Master's track* :  
*Graduation professor* :  
*Master's programme* : attached  
*Date master's examination* :

**Plagiarism check**, no plagiarism found

*Oral presentation* : \_\_\_\_\_

*Report* : \_

*Defence* : \_

*M-assignment (content)* : \_

*M-assignment (process)* : \_

*FINAL GRADE* : \_\_\_\_\_

*RESULT* : \_\_\_\_\_

The graduation committee hereby states that  
The status of the final report will be\*:

O = "**Confidential**" (for a period of \_ years)

O = "**Public**"

\*) *tick the appropriate box*

Graduation committee:

Prof.dr.ir. XX

Dr.ir. YY

Prof.dr.ir. ZZ

Signature:

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| Criteria                                      | Motivation (What went well, What could have been improved) |
|---|--|
| Oral Presentation                             |  |
| Report  |  |
| Defence                                       |  |
| Content<br>(quality of research<br>or design) |  |
| Working process<br>during project             |  |