This assessment form is applicable to students who started their graduation project in Academic Year 2022-2023 and 2023-2024



| Assessme | ent Form (| Graduation P | roject MSc | ABP | | | | | | | | | |
|-----------------|------------------|-----------------------|----------------------|---------------|----------------|--|--|--|--|--|--|--|--|
| Name studen | t | | | | | | | | | | | | |
| Student ID nu | | | | | | | | | | | | | |
| | IIIDEI | EC: | | | | | | | | | | | |
| Course code | | | | | .C. | | | | | | | | |
| Start date | | | | | | | | | | | | | |
| Date of assess | sment | | | | | | | | | | | | |
| Thesis title | | | | | | | | | | | | | |
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| Chair Graduat | tion Committee | | | | | | | | | | | | |
| Criterion | | | Weight ¹⁾ | Grade | Final grade 2) | | | | | | | | |
| Product | Quality of rese | arch and/or design | % | | | | | | | | | | |
| Process | Working and le | arning process | % | | | | | | | | | | |
| Presentation | Written and or | al communication | % | | | | | | | | | | |
| Composition | Graduation Supe | ervising Committee 3) | | roup/universi | ty/company | | | | | | | | |
| | | Chair | | | | | | | | | | | |
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| Advisors of th | ne committee | | Company or in | stitution | | | | | | | | | |
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| Signature of th | ne Graduation Su | pervising Committee | e chair: | | | | | | | | | | |
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Date:

¹⁾ Weight factors for the 3P's: minimum for each factor is equal to 15%, maximum for each factor is equal to 70%. The weight factors must be specified in the graduation plan.

²⁾ The assessment of the graduation project shall be rounded to the nearest half grade on a scale of 0 to 10.
3) In case of double track graduation the committee must have two (Associate) Professors, one for each track. A separate assessment form for double track graduation is available.

| Written motivation (obligatory) Specify in text what went well: |
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| Specify in text what could be improved: |
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Confidentiality:

The Graduation Committee Chair declares that the final thesis of the graduation is (please tick):

- O public
- O confidential for max. 2 year*

 Note: include the publication date (two year from now) in the report
- O confidential after 2 years (permission required from the dean of the department)*
 - *Two versions (confidential and public) must be handed in online at the secretariat of the Examination Committee through Surf filesender. In case of a <u>max</u>. 2-year embargo a public summary may suffice.
 - The confidential version of the thesis will be used for purposes related to the assessment.
 - The public summary or public version of the thesis is checked for plagiarism by the student's supervisor(s).
 - The public summary or public version of the thesis will be included/published in the TU/e library after the thesis has been defended.
 - The public summary or public version of the thesis will be replaced in the TU/e library by the confidential version after the embargo has expired.

Assessment of the Master Graduation Project

The Master Graduation Project is assessed on three aspects: Product, Process and Presentation. The assessment can be by marks on a scale of 1 to 10 or can be indicated graphically by ticking on a continuous scale. Either way the three forms on the next pages must be filled out.

Indication of what the various marks mean

The table below gives a general indication of what the various marks mean.

| 10 Excellent | 9.5 | 9 Very good | 8.5 | 8 Good | 7.5 | 7 Amply sufficient | 6.5 | 6 Sufficient (pass) | 5.5 | 5 Almost sufficient (fail) |
|-------------------------------------|-----|------------------------------------|-----|--------------------------------------|-----|----------------------------------|-----|-----------------------------------|-----|-----------------------------------|
| The graduation project, taken as a | | The graduation project, taken as | | The graduation project, taken as | | The graduation project, taken as | | The graduation project, taken as | | The graduation project, taken as |
| whole, is: | | a whole, is: | | a whole, is: | | a whole, is: | | a whole, is: | | a whole, is: |
| of such a level of outstanding | | exemplary, such that the judge | | very good on all fronts, clearly | | adequate and more or less | | just about satisfactory although | | below par. The research is |
| excellence and cogency that it has | | would ideally want the design to | | presenting the case made for the | | answers all the learning | | the consequences of a claim are | | slovenly, claims are not properly |
| the expected potential to change | | be built/produced, the research | | design/research and weighing | | objectives. Perhaps the full | | lacking and the evidence for | | thought through or underpinned |
| the public debate about the | | published and implemented. | | each consideration well and | | consequences of a claim have | | some claims is lacking or faulty; | | with proper evidence and are not |
| discipline lastingly. | | This level of excellence is worthy | | explicitly. This level of excellence | | not been fully overseen, and | | the design/research more or less | | inferentially robust. A design |
| | | of being exhibited and/or | | conforms precisely and well, to | | perhaps some of the evidence is | | works, but shows muddled | | does not, despite the serious |
| This criterion does do not even | | published, perhaps with some | | all end terms and learning | | shaky or missing, but these can | | reasoning, inconsistencies | | effort made, quite work as a |
| manifest itself in this way in most | | minor modifications. | | objectives of the course. | | be compensated by parts that | | and/or missing elements. | | proposition whilst the |
| experienced, academically trained | | | | | | warrant a higher mark or do | | However, various parts | | argumentation fails on many |
| and highly successful academics | | | | Students receiving this mark | | nothing to diminish the validity | | compensate others. | | fronts. |
| and professionals. The awarding of | | | | should feel very proud of their | | of the research work or design | | | | |
| such a mark should be discussed | | | | achievement. | | proposition. | | Students receiving this mark | | Students receiving this mark |
| before awarding it, with the | | | | | | | | should feel unsatisfied but not | | should feel dissatisfied about |
| program director and the | | | | | | Students receiving this mark | | crestfallen about their | | their achievement and would |
| examination committee. | | | | | | should feel very satisfied about | | achievement. | | want to redo the course. |
| | | | | | | their achievement. | | | | |
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Mark 4 is insufficient. This mark should be awarded to those who really are not up to understanding the implications (consequences or intentions) behind their own design decisions or the implications (conclusions) of their research findings and who cannot argue them satisfactorily at all, but who might well benefit from doing the project again.

Marks 1-3 are insufficient and are critically low. These marks should be awarded to those who have attitudinal problems, who have not taken the project seriously and who present incomplete projects. Students receiving these marks should reconsider the career direction they have taken.

Product: Quality of research and/or/by design

The product can either be a research product, exclusively concerned with a claim or hypothesis subjected to (empirical) analysis and critique, the development of the proposition for a product, which is researched, analyzed and critiqued; or a design proposition fully underpinned by research and argued thoroughly. In this last case, the product includes the design proposition as revealed in the content of the drawings, renders and models, any evidentiary research done as well as the argumentation of each design decision.

| underpinned by research a | | | e, the product includes the design pro | | | | | | | | |
|--|--|-----|---|-----|---|-----|---|-----|--|-----|--|
| Aspect | 10 Excellent | 9.5 | 9 Very good | 8.5 | 8 Good | 7.5 | . , | 6.5 | 6 Sufficient (pass) | 5.5 | 5 Almost sufficient (fail) |
| Relation to the learning objectives | Satisfies the learning objectives to a rare and exceptional degree, far outstripping what might be expected. The student shows a rare comprehension of her discipline. | | The student has not only done more than expected of her but has done so in a way whereby all the elements of the project are well-conceived and defined and cohere into a unified whole. | | The thesis maybe very good on certain aspects but be weaker in minor areas. In any case the student has responded well to all the learning objectives, resulting in a consistent product. | ı | The thesis may be good in some parts whilst other parts are clearly wanting. The student has satisfied all learning objectives of the graduation project but not without critical comment. | | The student has clearly struggled with the project. The learning objectives are met but only just. Regarding most learning objectives, critical comments can be made. | | Student has struggled and been unable to meet all the learning objectives. |
| Relation to the state- of-the-art body of knowledge & Literature review | The thesis is a rare and exceptional contribution to the scientific discourse. It is worthy of publication and is expected to affect the course of discussion. A rare and exceptional response to existing literature placing the problem researched in a completely new and exciting light. | | The thesis is an excellent and exemplary contribution to the scientific discourse. It might be worthy of publication with modifications. Profound analytical and critical evaluation of literature, demonstrating a high level of skill in integrating this in her own design/research. | | The thesis responds to the state of the art even if it does not push any boundaries. It makes good use of existing knowledge. Well-explained analytical and critical evaluation of the latest literature. | | The thesis makes use of state-of- the-art knowledge but struggles to make the best of it. Claims made may be consistent with the existing body of knowledge but not fully worked out. A perfectly adequate evaluation of the literature but lacking an analytical or critical position. | | The thesis merely reproduces existing insights and knowledge without being able to process it fully. Claims made are satisfactory but show no attempt to fully understand the issues and arguments and implications. Limited depth, in that the student may not be able to place her work in a wider debate. | | Insufficient use of existing knowledge and insights and claims made do not relate to the existing body of knowledge. The analysis and critique of claims made in the literature is either weak, or inconsistent. The student struggles with connecting the research with her own work. |
| Research/design methods and research question | A rare contribution to the reflection upon and reform of research/design methods. The thesis will change methods in the approach to similar research/design questions. | | Very good evaluatively critical demonstration of the application of relevant design/research methods: scientific, scholarly & professional. | | Well-explained and well justified application of existing methods. The research/design question is clearly stated, allowing for a well-directed exploration of possibilities. | | An adequate use of existing methods for research and design, although critical remarks may be made regarding the pertinence and consistency of their application. | | A limited and not always consistent use of existing methods. Showing moments of incomprehension regarding the purpose and use of methods. The validation of the methods is there but not fully applied. | | Unsystematic, not validated and unclear. No link to the correct research and design methodologies. |
| Conclusions & recommendations Contribution to theory & practice | Brilliant conclusions that will lastingly affect the discourse within the relevant discipline. Any follow-up actions recommended should be followed up. | | Excellent conclusions and recommendations. Very valuable contribution to theory and/or practice. Conclusions summarize the claims made in an excellent way and relate them to possible future developments. | | Clear, relevant, and very critical conclusions and recommendations. Valuable contribution to theory and/or practice. Conclusions summarize the claims made, relating them to future developments. | | Satisfactory conclusions and recommendations. Critical remarks are possible, however. Doubts as to the validity of the claims made or their relation to future developments. | | Clear and most relevant conclusions but brief in their argumentation. Their relation to future developments or possible paths to be followed from here are absent or insufficient. | | Vague, confused, irrelevant, not able to analyze and discuss the results. |
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Process: Managing time, working, learning, listening, processing feedback, coping

The process looks at how the student has managed her time, how she coped with the occasional crisis or 'dip'; how she demonstrated her willingness to learn and investigate, and, most importantly, how she coped with and processed feedback on her product and presentation during the course of the graduation process.

| Aspect | 10 Excellent | 9.5 | 9 Very good | 8.5 | 8 Good | 7.5 | 7 Amply sufficient | 6.5 | 6 Sufficient (pass) | 5.5 | 5 Almost sufficient (fail) |
|--|--|----------|---|-----|---|-----|--|-----|---|-----|--|
| Time management & dealing with crises and 'dips' | An extraordinary level of quality within the time scheduled. If there was an dip or crisis it was dealt with in an exemplary way | <i>'</i> | Delivery of a very high level of quality within the time scheduled. Student was able to deal with any crisis professionally by taking initiative and getting help. | | Delivery of a good level of quality within the time scheduled. Student has coped well with any crisis or dip in the process, getting help on time. | | More than sufficient level of quality within the time a researcher/designer might be expected to reach that level. Coping with a crisis was an issue that was overcome but not without some difficulties. | | Student struggled to achieve the quality to be achieved within the timeframe and had a real struggle coping with crises and dips. | | Insufficient level of quality within the time a researcher/designer might be expected to reach that level, even when taking into account any unexpected delays. |
| Autonomy and collaboration: communicating with supervisors and helping others or asking for help from others | The student has reached true autonomy and is able to arrive at decisions independently by reasoning through the options thoroughly, whils maintaining an open mind to others and other disciplines. The student is great team-player and a natural leader, without being over-dominant. | t I | The student has reached autonomy (see under 10) but may have needed some initial help to get there. | | The student achieved a good degree of autonomy that may have required an occasional reminder or correction. Open to other opinions, interests and disciplines but may stay more safely within her own comfort zone. | | The student achieved with quite a lot of help a sufficient level of independence to be able to say that the product is truly that of the student. Was to a limited degree able to pay attention to other opinions and disciplines. Struggled occasionally with taking and processing feedback. | | The student struggled to operate autonomously, required a lot of help all the way, but just about reached a satisfactory level. Finds it very difficult to move outside of her limited knowledge base and struggled with accepting and processing feedback. | | Unable to work independently. The student closed her mind to other opinions and disciplines. Student was not able to cope with the complexity of the task, to take and process feedback and/or to cooperate with others. |
| Academic Attitude | A very committed studen displaying a proactive approach to challenges. Meticulous in the documentation of source and taking full responsibility for her actions. Excellent at making arrangements. An enthusiastic but not overl dominant participant in discussions showing the ability to listen actively. | 5 | Very committed and proactive (see under 10) but perhaps with a comment here and there. The student improved remarkably over the period and showed that 'the penny had dropped'. | | A good academic attitude which was acquired with a few kind reminders and instructions, most of which were taken up by the student who 'grew' in this aspect, during the process. | | Proficient but certainly not faultless commitment to an academic attitude. With regular reminders, occasional corrections, and regular instructions from tutors, most things went well enough. | | Limited commitment to an academic attitude, showing little initiative and needing constant reminding and instruction. Takes a very passive role in discussions. | | Not committed to an academic attitude at all. A very passive or even obstructive attitude in meetings. |

Presentation: Written, Oral, Visual and Mathematical communication

The presentation includes all aspects of communication: the graphic presentation of the product, the structure, conceptual and inferential clarity and correct use of grammar and spelling in the written report as well as the use of the correct technical names for the elements presented and discussed. It includes the graphic quality of the technical drawings, the renders and other illustrations and diagrams. It includes the quality of any crafted models. It also includes the presentation of the mathematics in a clear structured way using the most elegant and economical form of presenting a calculation so that it can be easily understood.

| | | | n so that it can be easily understood. | | | | | | | | |
|--|--|-----|--|-----|--|-----|---|-----|---|-----|--|
| Aspect | | 9.5 | , 0 | 8.5 | | 7.5 | • • | 6.5 | | 5.5 | |
| | All desired elements of the report are present and excellently and logically structured. Decisions are underpinned with valid reasons and proper references. The page-lay-out and typography is graphically very appealing. The student presents herself and her work confidently and professionally and gives a well-structured introduction | 9.5 | 9 Very good Very good report that needed a little initial help. It conforms to high scientific and professional standards of presentation. A limited amount of additional work could bring the result to a professional/scientific publication. Very good presentation and defense. Needs only a little help answering some difficult questions. Eye-opener on the | 8.5 | 8 Good Good and professional report with a very clear and accurate structure. Here and there a critical comment. A good and clear presentation. Good, solid answers to questions and good in discussion but needing some help. Gives much | 7.5 | 7 Amply sufficient Satisfactory and proficient report, coherent and consistent and with clear argumentation and a readable text. The presentation falters here and there. But the overall message is clearly brought across. The discussion might be | 6.5 | 6 Sufficient (pass) The report is satisfactory but only just. A lot of work needs to be done by the reader to make proper sense of the report. The argument holds, but the use of language, lay-out and structuring often hinders rather than helps comprehension. Clear, but limited. The student struggles with elements of a good presentation and finds it difficult to discuss the topic | 5.5 | 5 Almost sufficient (fail) Unclear, with a logic that is not evident and not explained. Poorly structured. Partly unclear and ambiguous text with incorrect use of notions and/or graphics which show no, or very little, explicit relation to each other. Vague and unclear presentation and defense The structure is unclear, points are not related to |
| | to a well-structured presentation. Speaks eloquently, introducing and arguing topics systematically, maintaining the interest of her audience. The discussion is brilliantly led by the student who manages to answer difficult questions with ease. | | subject. Accurate and rich in detail without going off-topic. | | insight in the subject matter. Perhaps a comment her or there, but the overall effect is good. | | fine, but the student shows no great depth in answering the questions. | | although her answers to questions are satisfactory even if they show little depth or wider comprehension. | | each other. Views are not explained and/or argued. The discussion is muddled, and the tutors play too great a role here. |
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| Visual presentation (if applicable) | Posters have a very good layout and clear and logic sequence. Technical drawings show a level of detail highly appropriate to their scale and communicate accurately. Rendered perspectives are of very good quality. Models are made with great care and are very relevant. | | Some help was needed, and some indications were given to reach the level mentioned under 10. | | Some weaknesses in one or two areas, but the overall picture is very good. | | With weaknesses in quite a number of areas. | | The presentation is only just satisfactory. Many areas are unclear and muddled, but the message just about gets through although the consistency is often lacking. | | The visual presentation is unsatisfactory. The poster sequence shows no logic. The layout of the posters is muddled and/or fussy. The drawings may be dishonest, revealing too little or the wrong technical detail. |
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| Mathematical communication (if applicable) | Excellent use of maths underpinning the content of the thesis precisely and in a very elegant way. | | Very well-structured use of mathematics but a little help from tutors was needed to reach this result. | | Clearly structured use of mathematics accomplished with substantial help from tutors. | | Mathematical underpinning of the report is okay. | | Just sufficient calculations and mathematics present to be able to understand the statements made. | | Faulty mathematics or equations without any structure adding nothing to the understanding of statements made. |
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