

Rubrics MSc Aerospace Engineering, TU Delft			Name:				Studynumber:	
			≤5 (fail)	6 (sufficient)	7 (satisfactory)	8 (good)	9 (very good)	10 (excellent)
<b>1. Content &amp; scientific + engineering approach</b>	Theoretical knowledge *	Does not understand and can not reproduce directly relevant theory at the level of MSc textbooks.	Understands and can, only with effort, reproduce relevant theory at the level of MSc textbooks.	Understands and can reproduce directly relevant theory at the level of MSc textbooks.	Understands and can reproduce directly relevant theory at the level of MSc textbooks and scientific literature.	Has independently collected, processed and integrated theory from different fields or sources.	Has independently developed a new piece of theory or a new (design) method.	
	Application of theory *	Is not able to relate theory to the performed research/design when asked to make such a link, even after having been shown how to do so.	Has difficulties applying theory to the performed research/design when asked to make a link between them, even after having been shown how to do so.	Can apply theory to the performed research/design, after having been shown how to do so.	Has independently applied theory to the performed research/design.	Has independently and very skillfully applied theory to the performed research/design.	Has independently integrated existing theory from different fields or sources into a new and original theoretical description or a new and original design.	
	Interpretation of the results *	The candidate does not provide evidence knowing what the outcome is about. Conclusions are unconnected to the results and no verification of the results has been carried out.	Findings are treated as straightforward and unproblematic. No or only minimal verification has been carried out. Conclusions have tenuous link with results.	Findings are treated as straightforward and unproblematic. Verification has been carried out. Conclusions have some connection with the results.	Uses techniques for interpretation and verification in a mechanical way. Conclusions are based on results but are not expanded to a higher level.	Good interpretation and verification of the results. The conclusions are based on the findings and are expanded to a generic level.	Detailed interpretation and verification of the results. The conclusions are based on the results and are expanded to a high generic level.	
	Scientific * significance	Work is not reliable and should be redone before results can be communicated to the outside world.	Work should be checked and possibly (partially) redone before results can be communicated to the outside world.	Work has to be checked before it can be included in external reports or publications.	Results can be communicated without hesitation to the outside world. Work has the potential to contribute to a conference paper, a journal publication, a patent or a new computational or experimental technique not previously available in the group.	We are proud to communicate the results to the outside world. The work may directly lead to a conference paper, a journal publication or a patent.	We are proud to communicate the results to the outside world. Work may directly lead to a publication in a journal or a patent and can become a part of a future PhD thesis.	
	Critical attitude *	Has no critical attitude towards own results.	Has limited critical attitude towards own results.	Has sufficient critical attitude towards own results, limited critical attitude towards literature and specialists.	Has sufficient critical attitude towards own results, literature and specialists.	Has well-balanced critical attitude towards own results, sufficient critical attitude towards literature and specialists.	Has well-balanced critical attitude towards own results, literature and specialists.	
<b>2. Report</b>	Quality of the report *	Report does not fulfill basic requirements in terms of structure, content, grammar, lay-out and clarity or contains large scientific errors. Poor document, illogical structure, no or non-relevant arguments. Grammar and spelling are so poor that they make the document unreadable. The report cannot be used for future work.	Report fulfills basic requirements in terms of structure, content, grammar, lay-out and clarity and is free of large scientific errors. Poorly expressed, argumentation often replaced by assumption or assertion or omitted. Structure and transitions need considerable improvement and document contains serious spelling and grammar errors. The report cannot be used for future work	Report fulfills all basic requirements in terms of structure, content, grammar, lay-out and clarity and is free of scientific errors. Reasonably expressed, argumentation sometimes replaced by assumption or assertion. Structure and transitions need improving and document contains quite a few spelling and grammar errors. The report would require further explanation before future work can be done.	Report is free of scientific errors and fulfills all requirements in terms of structure, content, grammar, lay-out and clarity. Expressed well, technically correct. Clear structure. Arguments could be improved. Document has a reasonable flow. Transitions sometimes not very effective. Document contains some spelling and grammar errors. The report can be used for future work with limited additional explanation.	Very good report in terms of structure, content, grammar, lay-out and clarity. Clear and persuasive and well-structured document. Document has a smooth flow with effective transitions, with only minor spelling and grammar errors. The report can be used for future work without any problem.	Excellent report in terms of structure, content, grammar, lay-out and clarity. Professionally written with style and with strong arguments. Document has a smooth flow with effective transitions, spelling and grammar errors free. The report can be used for future work without any problem.	
	Independence *	The report required many iterations and continuous input from the (principal) supervisor(s) but still is of insufficient quality.	The report required many iterations and continuous input from the (principal) supervisor(s) but is still of low quality.	The report required several iterations and significant input from the (principal) supervisor(s). The report is of acceptable quality.	The report required only one or two iterations and limited input from the (principal) supervisor(s).	The report required only one iteration and limited input from the (principal) supervisor(s).	The report required no iterations and (almost) no input from the (principal) supervisor(s).	
<b>3. Presentation &amp; defence</b>	Presentation *	Presentation is unstructured and chaotic and totally unsuited for the target audience as set by the supervisor(s). Presentation lacks detail and does not support conclusions. Irrelevant information presented	Logical structure of presentation is almost non-existent, large parts are not suited for the target audience as set by the supervisor(s). Major improvements to the structure should be made. Presentation lacks detail, and is just enough to support conclusions.	Logical structure of presentation is reasonable but needs improvement, parts are not suited for the target audience as set by the supervisor(s). Improvements to the structure should be made. Presentation has sufficient detail to support conclusions.	Presentation has good logical structure, the main points are separated from the side-steps, only some parts are not suited for the target audience as set by the supervisor(s). Minor improvements to the structure could be made. Presentation has sufficient detail to support conclusions.	Presentation has very good logical structure, the main points are clearly separated from the side-steps, is suited for the target audience as set by the supervisor(s). Presentation has the right level of detail to support the conclusions and to understand the recommendations.	Presentation has excellent logical structure, the main points are very well separated from the side-steps, is well suited for the target audience as set by the supervisor(s). Presentation has the right level of detail to support the conclusions and to understand the recommendations	
	Defence *	During the defence students gives ambiguous answers and shows clear lack of systematic, abstract thinking. The student does not master the content.	During the defence student occasionally shows effort in giving precise answers but often wanders into feeble excuses, showing lack of abstract argumentation. Has difficulty explaining the subject matter of the thesis.	During the defence the student makes an effort in answering questions but is not always confident and well-prepared sometimes loses focus and tendency to enter into irrelevant issues.	During the defence student answers questions and is well-prepared. The student is able to place the thesis into context.	During the defence student manages to defend or justify choices, methods and conclusions made under scrutiny, while showing proficiency in transparent communication.	During the defence student shows superior mastery and power in defending the research in its set up, methodology and execution.	
<b>4. Creativity &amp; initiative</b>	Creativity *	Has not attempted to make an original contribution to the project.	Has not really made any original contribution to the project.	Has had at least one original contribution to the project not initiated or thought of by the supervisor.	Has come up with several original ideas, design options and/or concepts not initiated or thought of by the supervisor.	Has come up with many original ideas, design options and/or concepts not initiated or thought of by the supervisor.	Has surprised us all with some brilliant new ideas, design options and/or concepts, both in breadth and dept, one like this every 10 years.	
	Initiative *	Student shows no initiative at all.	Student picks up some initiatives and/or new ideas suggested by others (e.g. supervisor), but the selection is not motivated.	Student occasionally takes initiative, together with the supervisor, to extend or modify the research/design plan or to suggest an alternative method or approach.	Student takes initiative at multiple occasions to give his/her own input for the research/design plan or the followed method and approach.	Major parts of the research/design plan, followed method and approach were essentially initiated, selected and defined by the student.	Problem formulation, research/design plan, followed method and approach were essentially all initiated, selected and defined by the student.	
<b>5. Project management</b>	Planning *	Is not able to make and execute a time planning; nominal project time was exceeded by more than 5 months.	Time planning should be improved, nominal project time was exceeded by more than 4 months.	Time planning could be improved, nominal project time was exceeded by more than 2 months.	Good time planning, nominal project time was exceeded by no more than one month.	Very good time planning, nominal project time was exceeded by no more than a couple of weeks.	Excellent time planning, nominal project time was not exceeded, not even in cases of unexpected circumstances.	
	Control *	Showed no responsibility for the proper progress and completion of the project. Wastes the available resources (time / equipment / money) and does almost no useful work.	Showed little responsibility for the proper progress and completion of the project. Wastes parts of the available resources (time / equipment / money).	Did take and show responsibility for the proper progress and completion of the project but still wastes some of the available resources (time / equipment / money).	Was "project manager" of the research/design project. Does not waste the available resources (time / equipment / money).	Was "project manager" of the research/design project and was actively involved in related projects and initiatives where possible. Makes effective use of the available resources (time / equipment / money).	Was "project manager" of the research/design project and initiated new related projects and initiatives where possible. Makes very effective use of the available resources (time / equipment / money).	

\* The committee is free to choose the grade for each criterion anywhere within the range of grades given for the respective sub-criteria.