



Rubric - MSc-thesis

version: 4.1 (source: thesisinternship-rubric-v4.1_20230914.xlsm)

Criterion and subcriterion	Unacceptable Grade: 2	Insufficient 3 Grade: 4	Needs improvement 5 Grade: 6	Just sufficient 7	Good Grade: 8	Very good 9	Exemplary Grade: 10	Points of excellence
1. Performance (40%)								
1.1 Independence, Initiative and creativity								
Independence	The student can only execute the tasks properly after repeated detailed instructions and with direct help from the supervisor.	The student needs detailed instructions and well-defined tasks from the supervisor and the supervisor needs to monitor the student to see if all tasks have been performed.	Student depends mainly on supervisor for setting out the task, but the student performs them mostly independently.	Student plans and performs tasks mostly independently, asks for help from the supervisor when needed.	Student plans and performs tasks independently and organises their sources of help independently.			
Initiative and creativity	Student shows no initiative or new ideas at all.	Student adopts initiatives and/or new ideas suggested by others (e.g. supervisor), but cannot motivate/explain the rationale of these initiatives/ideas themselves.	Student shows some initiative and/or together with the supervisor develops one or two new ideas on minor parts of the research.	Student initiates discussions on new ideas with supervisor and puts forward their own creative ideas on hypothesis formulation, design or data processing.	Student develops and implements innovative hypotheses, methods and/or analysis of information/data. Possibly the idea for the project has been formulated by the student.			
1.2 Commitment, perseverance and adaptivity								
Commitment/perseverance	Student is not motivated. Student escapes work and gives up regularly.	Student has little motivation. Tends to be distracted easily and shows little perseverance.	Student is motivated at times, but often refers to the work as a compulsory task. Is distracted from thesis work now and then.	The student is motivated and shows ownership of the project. Overcomes an occasional setback independently.	The student is very motivated, shows ownership, and overcomes setbacks independently. Student goes at length to get the most out of the project (within the planned period).			
1.3 Receiving and providing feedback								
Receiving feedback	Student does not follow up on suggestions and ideas of the supervisor. Shows a defensive attitude to feedback.	Student follows up on some suggestions and ideas of the supervisor without any critical reflection.	Student accepts feedback from supervisor. Incorporates most or all of the supervisor's feedback adequately but without much reflective discussion.	Student welcomes feedback from supervisor and asks for it when needed. Student reflects on feedback and incorporates changes after engaging in a discussion.	Student seeks and welcomes feedback from supervisor and other staff members or students. Student critically reflects on feedback, uses it as a starting point for further discussion and proposes alternatives			
Providing feedback	Student does not provide feedback to others, even when asked for.	Student only provides feedback when asked for. Feedback is general, without supporting examples or without suggestions for improvement.	Student provides well-founded (with examples), specific feedback when asked for.	Student spontaneously provides balanced (positive and negative), well-founded (with examples), specific feedback .	Student actively engages in discussion with others to deliver balanced (positive and negative), well-founded (with examples), specific and constructive feedback. Student checks whether feedback is clear for receiver.			
1.4 Development of knowledge and skills								
	Knowledge and skills remain insufficient (in relation to the prerequisites) and the student does not succeed to take appropriate action to remedy this.	Students' progress in knowledge and skills is limited and requires extensive guidance by the supervisor.	The student adopts knowledge and skills as they are presented during supervision.	The student adopts knowledge and skills independently, and asks for assistance from the supervisor if needed.	Students explores solutions independently and seeks appropriate knowledge and skills required.			
1.5 Time management								
	No time schedule made, or time schedule lacks all detail. Final version of report or oral presentation more than 50% of the nominal period overdue without a valid reason (force majeure)	No realistic time schedule, or repeatedly ignoring the time schedule, or mostly dependent on supervisor for keeping on track. Final version of report or oral presentation overdue up to 50% of the nominal period (without force majeure).	Mostly realistic time schedule, but no timely adjustment of time schedule if needed. Final version of report or oral presentation at most 25% of nominal period overdue (without force majeure)	Realistic time schedule, with timely adjustments of time schedule but without reconsidering tasks. Final version of report or oral presentation at most 5% of nominal period overdue (without force majeure).	Realistic time schedule with timely and effective adjustments of both time and tasks if necessary. Final version of report and oral presentation finished within planned period (or overdue because of force majeure and finished within reasonable time).			

Criterion and subcriterion	Unacceptable	Insufficient	Needs improvement	Just sufficient	Ample sufficient	Good	Very good	Exemplary	Points of excellence
	Grade: 2	3	Grade: 4	5	Grade: 6	7	Grade: 8	9	Grade: 10
1.6 Performance on research/project tasks									
	Student repeatedly makes mistakes or performs tasks inaccurately. Student violates aspects of integrity.	Student does not pay sufficient attention to details. Student does not show awareness of aspects of integrity like transparency and responsibility.		Student pays some attention to details. Student is mostly transparent in their choices and acts responsibly towards people and property.		Student pays attention to details. Student is transparent in their choices and acts responsibly towards people and property. Student is able and willing to discuss integrity.		Student is conscientious and efficient. Student is transparent in their choices and acts responsibly towards people and property. Student actively inquires, and initiates discussions, about integrity.	
1.7 Execution of research									
Select the type(s) of activity relevant for the research under consideration	<p>Study or experiment: Student is not able to prepare for and/or execute a study or experiment based on detailed instructions in protocol.</p> <p>Data analysis: Student is overwhelmed by data. Is not able to use a spreadsheet program or any other appropriate data-basic processing program.</p> <p>Model or method development: Student is not able to make any modification/addition to an existing model/method.</p>	<p>Study or experiment: Student is able to follow detailed instructions to some extent, but errors are made often, invalidating (part of) the study or experiment.</p> <p>Data analysis: Student is able to organize the data, but is not able to perform quality checks, transformations and/or analyses, or student can do simple checks but not organize data themselves.</p> <p>Model or method development: Student modifies an existing model/method, but errors occur and persist. No validation.</p>		<p>Study or experiment: Student is able to follow detailed instructions (without critical assessment of sources of error and uncertainty).</p> <p>Data analysis: Student is able to organize data and perform some simple checks; but the way the data are used does not always clearly contribute to answering of the research questions.</p> <p>Model or method development: Student is able to make minor modifications (say a single formula or step) to an existing model/method. Validation is superficial or absent.</p>		<p>Study or experiment: Student is able to judge the setup of an existing study or experiment and to include modifications if needed. Takes into account sources of error and uncertainty appropriately (quantitatively where applicable).</p> <p>Data analysis: Student is able to organize the data, perform commonly used checks and perform some advanced analyses on the data.</p> <p>Model or method development: Student is able to make major modifications to an existing model/method, based on literature and/or own analyses. Validation using appropriate (statistical) measures.</p>		<p>Study or experiment: Student is able to setup or adapt a study or experiment tailored to answering the research questions. Appropriate (quantitative where applicable) consideration of sources of error and uncertainty. Execution of the study / experiment is flawless</p> <p>Data analysis: Student is able to organize the data, perform thorough checks and perform advanced and original analyses on the data</p> <p>Model or method development: Student is able to develop a model/method from scratch, or add an important new part to an existing model/method. Excellent theoretical basis for model/method as well as use of advanced validation methods.</p>	
2. Research report (50%)									
2.1 Context, goals and delineation of research/project									
Context	No context of the research given or the context described is nonsensical.	Context of the research is described in broad terms. There is no link between the described context and the research questions / hypothesis.		Context of the research is correct but limited in width and depth (e.g. does not go beyond the information provided by the supervisor).		Context of the research is defined well and to-the-point and includes the knowledge gap. The research questions / hypothesis emerge directly from the described context.		Context of the research is defined sharply, to-the-point, funnelling from the broader context to the knowledge gap. The research questions / hypothesis emerge directly from the described context. Novelty and innovation of the research are indicated.	
Research questions or hypothesis	There is no researchable research question or testable hypothesis and the delineation of the research is absent.	Most research questions are unclear, or not researchable. Hypothesis is not specific and/or testable. Rationale of research is not well-defined. Delineation of the research is weak.		Rationale of research and research questions / hypothesis are mostly clear, but could have been defined sharper at some points. Delineation of the research is provided.		Rationale of research is clear. The research questions are researchable, hypotheses are testable. A clear delineation of the research is provided.		Rationale of the research is well-defined and linked to the context. The research questions are researchable, clear and formulated to-the-point. Hypothesis is specific and testable. Research is clearly delineated, also vis-a-vis existing research.	
2.2 Theoretical underpinning of goals and framework									
	No theoretical underpinning.	There is some connection made between the research and underlying theories/literature, but the description shows serious errors.		The relevant theory/literature is used, but the description is minimalistic, has not been tailored to the research at hand, or shows occasional errors.		Student links the research to relevant theory/literature and identifies knowledge gap. The relevant theory is synthesized, and successfully tailored to the research at hand.		Clear, complete yet to-the-point, and coherent linkage to relevant theories/literature. Student develops hypothesis based on well-defined knowledge gap. Description tailored to the research at hand.	

Criterion and subcriterion	Unacceptable	Insufficient	Needs improvement	Just sufficient	Ample sufficient	Good	Very good	Exemplary	Points of excellence
	Grade: 2	3	Grade: 4	5	Grade: 6	7	Grade: 8	9	Grade: 10
2.3 Description and choice of methods and processing of information/data									
	No description of research methods and analysis of the information/data, or description is unintelligible. Methods and analysis are not appropriate.	Description of research methods and analysis of information/data is minimal, incomplete or unclear. Or some of the methods and analysis used are not appropriate.		Description of methods and analysis of information/data is mostly complete, but lacks clarity or detail at some points, hampering exact repetition of the work. Some minor parts of the methods and analysis used are not to most appropriate.		Description of methods and analysis of information/data is clear and complete. All methods and analysis are appropriate. Level of detail allows for a close to exact repetition of the work.		Description of methods and analysis of information/data is clear, complete and efficient/to-the-point. Methods and analysis of information/data are all appropriate. Level of detail and quality of description enables exact repetition of the work.	
2.4 Presentation of data and results									
	Based on the description the reader is not able to understand what results were achieved.	Results or their connection to the research questions / hypothesis are unclear. Text, figures, graphs, tables etc. contain several flaws.		Results are enumerated understandably and correctly, and are connected to the research questions / hypothesis. Text, figures, graphs, tables, etc. are appropriate and show few flaws.		Results are presented correctly and efficiently. Text, figures, graphs, tables etc. are linked to the goals of the research questions / hypothesis in a logical way. Text, figures, graphs, tables, etc. are appropriate and correct..		Results are presented flawlessly and efficiently, with a clear storyline connecting the various results. Text, figures, graphs, tables etc. are well-chosen or original, and efficiently guide the reader to understand what results were achieved in relation to the research questions / hypothesis.	
2.5 Evaluation of results									
Critical evaluation of own research	No reflection on the results of the research, or discussion only touches invalid, trivial or overly general points of criticism.	Student identifies only some points of weakness in the research or weaknesses which are in reality irrelevant or non-existent.		Student indicates weaknesses in the research, but impacts on the conclusions are not weighed relative to each other.		Student indicates all weaknesses and strengths in the research, evaluates their impacts on the conclusions, and weighs their impact on the conclusions relative to each other. Furthermore, (better) alternatives for the methods used are indicated.		Student indicates both strengths and weaknesses in the research, evaluates their impacts on the conclusions and weighs their impact on the conclusions relative to each other. Furthermore, original/innovative (better) alternatives for the methods used are specified.	
Confrontation with literature	No confrontation with existing literature.	Only marginal confrontation vis-a-vis existing literature, or confrontation with irrelevant existing literature.		Only most obvious conflicts and correspondences with existing literature are identified. The value of the study is described, but it is not related to existing research.		Results are confronted with existing literature and a distinction is made between minor and major conflicts and correspondences. The added value of the research relative to existing literature is identified and weighed.		Results are critically confronted with existing literature, and distinction is made between minor and major conflicts or correspondences. The relative weight of own results and existing literature is assessed. The contribution of the work to the development of scientific concepts is specified.	
2.6 Clarity and justification of conclusions									
Conclusions	No link between research questions / hypothesis and the results plus conclusions.	Conclusions merely repeat results, or conclusions are not substantiated by results, or conclusions only address part of the research questions / hypothesis.		Conclusions are linked to the research questions / hypothesis, but not all research questions / hypothesis are addressed. Some conclusions are not substantiated by results or merely repeat results.		Clear link between research questions / hypothesis and conclusions. All conclusions substantiated by results. Conclusions are formulated exact..		Conclusions are well-linked to all research questions / hypothesis and substantiated by results. Conclusions are formulated exact and concise and the line of argumentation is clear, logical and convincing. Conclusions address knowledge gaps, and proposal for future research is included.	
Recommendations	No recommendations given.	Recommendations are trivial.		Some recommendations are given, but the link of those to the conclusions is not always clear.		Recommendations are to-the-point, well-linked to the conclusions and original.		Recommendations are to-the-point, well-linked to the conclusions, original and are extensive enough to serve as project description for a new MSc-thesis project.	
2.7 Writing skills									
Structure	Document is badly structured. In many cases information appears in wrong locations. Level of detail is inappropriate throughout.. Paragraph structure is illogical and inhibits correct understanding of the text.	Main structure is correct, but lower level hierarchy and ordering is illogical. Some sections have overlapping functions leading to ambiguity in placement of information. Level of detail varies widely (information missing, or irrelevant information given). Structure within paragraphs and transition between paragraphs are often unclear or illogical.		Main structure is correct, placement of material in different chapters is somewhat illogical in some places. Level of detail could be improved in some places (irrelevant information given). Most paragraphs have a clear function. Transitions between paragraphs are predominantly clear and logical. Errors in structure do not inhibit correct understanding.		Main structure is correct, chapters and sections have a clear and unique function. Hierarchy of sections is correct. Ordering of sections is logical. All information occurs at the correct place. Level of detail is appropriate. Paragraphs fulfil a specific function. Transitions between paragraphs are clear and logical.		Well-structured, and clear and concise throughout. Very readable report where the structure helps to convey the storyline of the report; structure, formulation and style facilitate understanding of the report. Paragraphs each fulfil a specific function, have a clear argumentation. Transitions between paragraphs are clear and logical; creating a clear line of argumentation.	
Fluency of writing	Formulations in the text are often incorrect/inexact inhibiting a correct interpretation of the text. Many spelling/grammar errors; inhibiting correct understanding of the text.	Vagueness and/or inexactness in wording affect the interpretation of the text. Many spelling/grammar errors, sometimes inhibiting correct understanding of the text.		Formulations in the text are ambiguous in some places but this does not inhibit a correct interpretation of the text. Spelling/grammar errors are rare, and do not inhibit correct understanding of the text.		Formulations in text are clear and exact, as well as concise. No spelling/grammar errors and readability of text is good.		Textual quality of document is such that it could be acceptable for a scientific or professional journal. No spelling/grammar errors; optimal use of grammar resulting in highly readable text.	
Citing and referencing	No literature cited or no proper reference list.	Reference list lacks information for many sources and/or literature is not or incorrectly referenced in the text.		Reference list contains literature used, but either referencing in text contains some errors, or information about sources is incomplete or incorrect in some cases.		Correct style of referencing in the text as well as in the reference list. Style is applied consistently throughout. All sources are traceable.		Correct style of referencing in the text as well as in the reference list. Style is applied consistently throughout. All sources are traceable. Style is appropriate for the type of document and the field of study.	

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3. Oral presentation (5%)

3.1 Content and level of presentation (note: relative to the rubric of 2021/2022, this criterion combines part of criterion 3.2 + criterion 3.3 and 3.4)

Presentation of data and results	Based on what is presented the audience is not able to understand what results were achieved.	Results or their connection to the research questions / hypothesis are unclear. Text, figures, graphs, tables etc., and/or how they are explained by the student, contain several flaws.	Results are enumerated understandably and correctly, and are connected to the research questions / hypothesis. Text, figures, graphs, tables, etc., and how they are explained by the student, are mostly appropriate and show few flaws.	Results are enumerated understandably and correctly, and are connected to the research questions / hypothesis. Text, figures, graphs, tables, etc., and how they are explained by the student, are mostly appropriate and show few flaws.	Results are presented correctly and efficiently, and are clearly linked to the research questions / hypothesis. Text, figures, graphs, tables, etc., and how they are explained by the student, are appropriate and correct.	Results are presented flawlessly. Text, figures, graphs, tables etc., in combination with students explanation, efficiently guide the audience to understand what results were achieved in relation to the research questions / hypothesis.	
Clarity and justification of conclusions	Student provides no link between goals, results and conclusions.	Student presents no clear conclusions, merely repeats results or does not substantiate conclusions by results, or only addresses part of the research questions / hypothesis.	Student links conclusions to the research questions / hypothesis but does not address all research questions / hypothesis. Some conclusions are not substantiated by results or merely repeat results.	Student makes clear links between all research questions / hypothesis and conclusion and substantiates all conclusions by results. Formulates conclusions exact.	Conclusions are well-linked to all research questions / hypothesis and substantiated by results. Conclusions are formulated exact and concise and the line of argumentation is clear, logical and convincing,		
Ability to respond to questions	Student is not able to answer questions.	Student is able to answer only the simplest questions.	Student answers informative questions well, but has difficulty to deal with in-depth questions.	Student answers both informative questions and in-depth questions well.	Student answers both informative questions and in-depth questions excellently. Answers are appropriate, clear and to-the-point and such that they enlighten the audience. Answers are logically and smoothly linked to the presentation or previous questions.		

3.2 Presentation skills [Assessment-form-MSc-thesis-WU-2022-2023v1.4.xlsm]Rubric'ISB\$34

Targeted at audience	Unsuited for the intended public or intended purpose.	At some points a bit off target; makes it difficult for the audience to follow.	Intended public taken into account, but at some points level of detail is inappropriate for intended audience (too much or too little).	Targeted to the intended public (language, depth, length); appropriate for the intended purpose.	Enticing and purposeful throughout, facilitating communication of the main messages to the audience.	
Structure of presentation	Presentation is chaotic.	Presentation has unclear structure or lay-out.	Presentation is structured, though the audience gets lost in some places.	Presentation has a clear structure, is concise and to-the-point. Good separation between main message and side-steps.	Presentation is very well structured, is concise and to-the-point. Good separation between main message and side-steps. Line of argumentation is clear, logical and convincing throughout	
Voice and poise	Presented in such a way that the majority of audience could not follow.	Presentation is uninspired and/or monotonous and/or student reads from slides; attention of audience not captured.	Presentation mostly clear, but at some moments uninspired and/or monotonous and/or unclearly spoken. At those moments attention of audience is lost.. Student has trouble recovering from mistakes.	Inspired, lively presentation, clearly spoken. Student recovers well from any small mistake.	Lively and relaxed though concentrated presentation. Clearly spoken in such a way that it keeps audience's attention. Smooth without errors.	

4. Oral defence (5%)

4.1 Defence of the MSc-thesis

Defence	Student is not able to defend/discuss their research/project and report.	Student has difficulty to explain the subject matter of the research/project and report.	Student defends their research.	Student engages in a discussion about the contents of the research and relevant current knowledge.	Student engages in a lively and in-depth discussion about the contents of the research and relevant current knowledge and contexts.	
Contents and context	Student does not master the contents.	Student limits themselves in the discussion to own data, and/or repeatedly demonstrates misunderstanding of own research.	Student knows most of the contents of the work. Student has difficulty to place it in its scientific, societal or practical context.	Student masters the contents of the work and is able to place it in scientific, societal or practical context.	Student masters the contents of the work and beyond. Student pro-actively places it in its scientific, societal and practical context, both narrow and wide.	