Graduation Manual

Geomatics
For the Built Environment

Academic year 2019–20

TU Delft

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Introduction

This manual is based on the official regulations of the graduation process for students in the Master Geomatics of the Faculty of Architecture and the Built Environment and is meant for students, mentors, delegates of the Board of Examiners and others who are involved in the graduation process. This manual contains important information about the structure and regulations of the graduation process.
The manual is part of the official regulations and is sent at the start of the semester to all students who enroll for GEO2010

Section 1 provides a scheme of the setup of the evaluations and a scheme explaining the responsibilities of everyone involved per evaluation.

Section 2 contains information about the quorum and the appraisal

Section 3 provides information on the 'cum laude' and 'honorable mention' regulations.

The appendices contain more detailed information on several aspects, a.o.: details on the subjects to be assessed, graduation plan, reflection requirements, an example of a graduation contract and the references to official regulations which this manual is part of.

A digital graduation registration is used. All involved teachers have access to the information in the SharePoint application that is used for this registration. The registration includes personal information of the student, the composition of the mentor team, registration for the P2 and P5 and the registration of all assessments.
Each semester Education and Student Affairs adds the names of the new enrolled GEO2010 students to this digital registration.

The involved coordinators, mentors and delegates of the board of examiners can add additional information and notes to the file of each student. For all graduates the main mentor is responsible for completing the digital assessment registration.

In the Academic year 2017-2018 a compulsory scan on plagiarism with the use of Turn-it In was introduced. In the implemented system the students first get the possibility to do the check themselves and they have to hand in a final version before the P4 presentation. The result of this plagiarism scan will be assessed by the involved mentors.

1.0 Graduation process

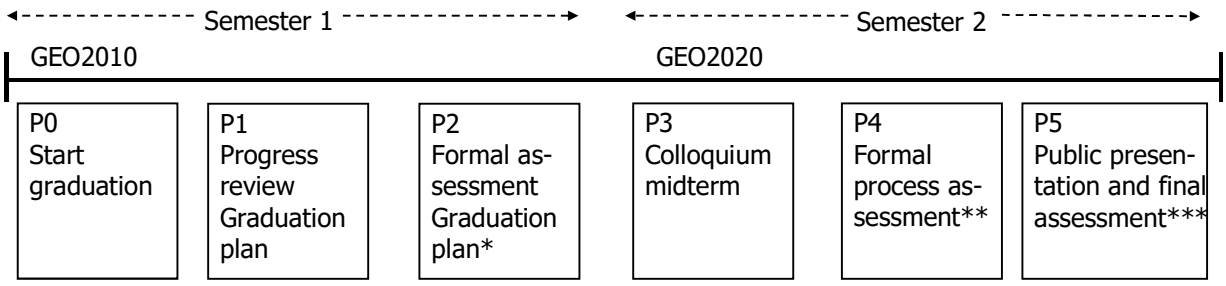
1.1 Admission

Students who enter the graduation programme should have completed all eight 5 EC core courses and the synthesis project of the first year. You start the graduation programme with registration (P0).

1.2 Evaluations

Two obligatory progress reviews (P1 and P3) will take place in the presence of your supervisors. During three formal assessments (P2, P4 and P5) your supervisors will evaluate your progress in the presence of a Delegate of the Board of Examiners.
All evaluations (P1 till P5) take place within the assigned periods, indicated in the academic graduation calendar. The P2, P4 and P5 have to take place within the the venue of the Faculty of Architecture.

Time Schedule		
What	**When**	**Responsible**
P0: Register for graduation	Start	*Student*
P1: Progress review *Product: draft Graduation plan* *Presentation: 5 minutes* *Questions & Appraisal: 5 minutes*	9-10 weeks after P0	*Graduation Coordinator (event)*
Submit final Graduation plan to both mentors (supervisors) and the Delegate of the Board of Examiners	*1 week before P2*	*Student*
P2: Formal assessment Graduation plan *Presentation: 15 minutes* *Questions : 15 minutes* *Closed Appraisal: 15 minutes* *Committee informs student about result assessment: passed, retake, failed*	9-10 weeks after P1	*Graduation Coordinator (event)*
P3: Colloquium midterm *Presentation:15 minutes* *Questions: 15 minutes*	7-8 weeks after P2	*Main Mentor*
Submit draft thesis to both mentors, the co-reader, and Delegate of the Board of Examiners	*1 week before P4*	*Student*
P4 Formal process assessment *Presentation: 30 minutes* *Questions: 15 minutes* *Closed appraisal: 15 minutes* *Committee informs student about result assessment: GO/NO-GO*	7-8 weeks after P3	*Student, Main Mentor*
Submit final thesis to both mentors, and the Delegate of the Board of Examiners	*1 week before P5*	*Student*
P5: Public presentation and final assessment *Public presentation: 30 minutes* *Questions: 15 minutes* *Closed appraisal: 15 minutes* *Result and graduation ceremony: 15 minutes*	4-5 weeks after P4	*Student, Main Mentor*



* P2: Formal assessment of the Graduation Plan, admission to GEO2020.
** P4: Formal assessment of draft thesis
*** P5: Formal assessment of final thesis and presentation.

1.3 Mentors and graduation team

Main Mentor (Daily supervisor)
The main mentor is a scientific staff member of one of the groups involved in the MSc Geomatics programme.
He / she is responsible for the overall Graduation Project and is an expert in the field of the graduation project. He / she acts as the daily supervisor, is involved in all evaluations and takes care of the registration of all assessments in Sharepoint.

Second mentor
The Second Mentor is a scientific staff member of the TU Delft whose expertise complements that of the Main Mentor. If the Main Mentor does not hold a PhD, then it is mandatory that the Second Mentor holds one. The Second Mentor must participate in P2, P4 and P5.

Co-Reader
The Co-Reader is a scientific staff member at TU Delft who is an expert in the field of the graduation project. The main task is to assess the quality of the student's work in an unbiased way. The co-reader has a decisive role in the Go / No-go decision. Preferably, he/she doesn't be part of the same section(s) as the Main Mentor and the Second Mentor belong to. The co-reader is suggested by the staff of Geomatics and arranged by the student.

Delegate of the Board of Examiners (BE)
The Delegate of Board of Examiners participates as chairman during the P2, P4 and P5 and is appointed by the Board of Examiners after admission to the P2.

1.4 Detailed scheme per evaluation

Evaluation 0 P0 - Start graduation

Goal	Admission to the grauation and s tart of the graduation administration process
Who	Graduation Coordinator together with Education and Student Affairs at the Faculty of Architecture

P0 responsibilities		
Part	**Action**	**Responsible**
Preparation	Register for GEO2010 during education enrollment period.	Student
	Check whether students meet admission requirements.	Education and Student Affairs
Introduction	Attend the introduction lecture to the Graduation Project (given twice a year).	Student
Completion	If student meets admission requirements, make student file in sharepoint.	Education and Student Affairs
	Check if all students have file in Sharepoint graduation registration.	Graduation Coordinator
	Register main mentor	Graduation Coordinator

Evaluation 1 P1- Progress review Graduation plan

Goal	Assessment whether the students progress guarantees he/she will be able to meet the requirements for the P2 in time.
Where	Reserved room by Graduation coordinator.
Structure	Presentation Graduation plan.
Assessor	Main Mentor, Graduation Coordinator.
Subjects of assessment	Research and process (see Appendix 1).
Method of assessment	Assessment is based on the P1 assessment criteria (appendix 1). The Main Mentor and Graduation Coordinator give the student a good (+), sufficient (0) or negative (-) indication per aspect.
Method of assessment registration	The assessment is registered on the P1 assessment form in the digital Graduation Registration (Sharepoint).
Consequence of Assessment	The student proceeds: If necessary the Main Mentor advises the student about possible improvements.

P1 responsibilities		
Part	**Action**	**Responsible**
Preparation	Schedule day, time and location and inform *student* and *Main Mentor.*	Graduation Coordinator
	15 minutes before session, install (if necessary) digital presentation.	Student
At the evaluation	Present draft Graduation plan.	Student
	Fill in "P1 assessment form", (Sharepoint).	Main Mentor
Completion	Complete registration at the assessment form: use notes, advise and make agreements. Result P1: • On schedule – student made enough progress to register for nominal P2 • Not on schedule – student didn't make enough progress for nominal P2	Main Mentor
	Within 2 days after P1. Send the assessment form to the student, with email button on the assessment form.	Main Mentor

Evaluation 2 P2 – Formal assessment Graduation plan

Goal	The P2 assessment is essential to get admission to GEO2020. The base for succesfully passing the P2 should be the confidence that the student can graduate within six months.
Where	Reserved room by Scheduling BK.
When	During the fixed weeks according to the academic graduation calendar.
Admission conditions	The enrollment for the P2 evaluation is only possible if the student has obtained all credits (EC) of the first year with the exception of 1 course (5 EC) maximum.
Structure	Scheduled 1 hour, including: 15 minutes preparation (student only); 15 minutes presentation; 15 minutes questions; 15 minutess for appraisal and communicating the result to the student.
Quorum	Main Mentor, Second Mentor, Delegate of the Board of Examiners
Chairman	Delegate of the Board of Examiners
Assessors (all required)	Main Mentor, Second Mentor
Subjects of assessment	Research, Presentation and Process (see Appendix 1)
Method of assessment	Assessment is based on the P2 assessment criteria. The mentors give the student a good (+), sufficient (0) or negative (-) indication per aspect. The mentors give the student a final conclusion: passed, retake or failed.
Method of assessment registration	The assessment and conclusion are registered on the P2 assessment form in the digital Graduation Registration (Sharepoint) by the Main Mentor.
Consequence of assessment	Result "Passed" means the graduate is able to finish the graduation project within next academic semester. Result "Retake" means the student does a P2 retake within two weeks Result "Failed" means the student does the P2 again in the next P2 period (registration required). The result "Passed" is an interim examination result with a validity of one year.
Retake	In case of a "Retake" the assessors are convinced that a realistic chance exists the student will be able to pass in 2 weeks. Specific improvement points are described at the assessment form. The main mentor agrees a date and time for the retake with the student, the second mentor and the Delegate of the Board of Examiners. If the mentors and Delegate are not satisfied with results at that date, a "Failed" is given, than applies the rule stated under "Failed".

P2 responsibilities		
Part	**Action**	**Responsible**
Preparation	Schedule day and time and inform student, Main Mentor and Second Mentor.	Graduation Coordinator
	Register P2 request in Sharepoint.	Graduation Coordinator
	Register second mentor. One month before P2 at the latest.	Graduation Coordinator
	Check whether student meets the admission requirements and register in Sharepoint.	Student Administration (SPA-BK)
	Inform student by email on result admission assessment.	Board of Examiners
	Allocate Delegate of the Board of Examiners and register in Sharepoint.	Secretary Education and Student Affairs (authorized by the board of examiners)
	Write a Graduation Plan (use template, see appendix 2).	Student
	Schedule P2 for admitted students; scheduled presentations will be part of the course BK-P2 and also the individual Staff Members timetables on My Timetable	Scheduling department
	Hand in the Graduation Plan to the Mentors and and send Graduation Plan to the Secretariat of the Board of Examiners at least one week before P2.	Student
	Read and assess the Graduation Plan.	Mentors and Delegate of the Board of Examiners
	15 minutes before session, install digital presentation, prepare the session.	Student
At the evaluation	Chairman.	Delegate of the Board of Examiners
	Present graduation plan, draft research results and draft of graduation project using digital presentation.	Student (See appendix 1 and 2 for exact products for this evaluation)
	Ask questions.	All mentors
	Evaluate academic level of student's presentation and the answers to the mentors' questions.	Delegate of the Board of Examiners and all mentors
At the closed appraisal	Act as chairman.	Delegate of the Board of Examiners
	Determine final judgement.	All mentors
	Document the judgement and conclusion on the P2 Assessment form in the digital Graduation Registration (Sharepoint).	Main Mentor

P2 responsibilities		
Part	**Action**	**Responsible**
Completion	Inform the student of assessment. Make arrangements for retake if applicable.	Main Mentor
	Complete assessment form with own notes within two workings days.	Second mentor and Delegate of the Board of Examiners.
	Check P2 assessment form on completeness and send it to the student by email, using the button on the Assessment form within five workings days.	Main Mentor
	Check whether forms are all present and filled in correctly. Undertake action if items are missing; register completion.	Education and Student Affairs
	Register P2 completion date in Osiris.	Student Administration (SPA-BK)
	After succesful P2. Determine who will be the co-reader at the P4 and register in graduation administration.	Graduation Coordinator

Evaluation 3 P3 - Colloquium midterm

Goal	Determine whether the students progress guarantees he / she will be able to meet on time the requirements for the P4.
Where	Reserved room by Main Mentor.
Structure	15 minutes presentation; 15 minutes questions.
Assessors	Main Mentor, Second Mentor (optional).
Subjects of assessment	Research, Presentation and Process (see Appendix 1).
Method of assessment	Assessment is based on the P3 assessment criteria (see Appendix 1). The Main Mentor gives the student a positive or negative indication concerning his progress.
Method of assessment registration	The assessment and conclusions are documented on the P3 assessment form in the digital Graduation Registration (Sharepoint) by the Main Mentor.
Consequence of assessment	This is not a formal assessment, it is used as an indicator for the student to know if he/she is on track. Regardless of the outcome of the assessment, the student proceeds. If necessary, the Main Mentor advises the student about possible improvements.

P3 responsibilities		
Part	**Action**	**Responsible**
Preparation	Schedule day, time and location and inform student and Second Mentor.	Main Mentor
	Register scheduled date in digital graduation registration.	Main Mentor
	15 minutes before start evaluation, prepare session.	Student (See appendix 1 for exact definition for required products for this evaluation)
At the evaluation	Present graduation plan and graduation project.	Student (See appendix 1 for exact description of required products for this evaluation)
	Give feedback to student on progress and quality of graduaion project.	Main Mentor
Completion	Fill in the P3 assessment form (Sharepoint). Determine conclusion: On schedule – student made enough progress to register for P4. Not on schedule – student didn't make enough progress for P4.	Main Mentor

P3 responsibilities		
Part	**Action**	**Responsible**
Completion	Inform the student of assessment; advice on progress.	Main Mentor
	Send the digital asessment form to the student, within 2 days after P3. Register P4 date, preferred time (morning, non, evening) in the Student Progress Overview in the Graduation Registration (Sharepoint).	Main Mentor
	Before registering the P4 date check availability Second Mentor and Delegate Board of Examiners.	Main Mentor

Evaluation 4 P4 - Formal process assessment

Goal	Determine whether the content of the research and the presentation meets the requirements to admit the student to the final public presentation (P5).
Where	Reserved room by Scheduling BK.
When	During fixed weeks according to the academic graduation calendar.
Admission requirements	Student has obtained all educational components with exception from P4 and P5 assessment by application for P4 assessment.
Structure	15 minutes for students preparation (scheduled) 30 minutes presentation; 15 minutes questions; 15 minutes closed appraisal by committee and committee informs student on the result: GO/NO-GO.
Quorum	Main Mentor, Second Mentor, Co-reader, Delegate of the Board of Examiners.
Chairman	Delegate of the Board of Examiners.
Assessors (all required)	Main Mentor, Second Mentor, Co-reader.
Subjects of assessment	Research, Presentation, Process and Project (see Appendix 1 and 5).
Method of assessment	Assessment is based on the P4 assessment criteria and also student thesis is checked on plagiarism The mentors give the student a good (+), sufficient (0) or negative (-) indication per aspect. Finally, the mentors give the student a positive (GO) or negative (NO-GO) judgement on the graduation project.
How is the assessment registered	The assessment and conclusion are registered on the P4 assessment form in the digital Graduation Registration (Sharepoint).
Consequence of Assessment	At result "GO" the student proceeds to the P5; At result "NO GO" the student has to register for a new P4 in the next period (retake P4). The students proceeds, if necessary the Main Mentor advises the student about possible improvements.
Retake	At result "NO GO" the retake will be held in the next P4 period. An appointment must be made with the Main Mentor. If the retake ends in 'NO-GO', an appointment with the study councellors needs to be made.

P4 responsibilities		
Part	**Action**	**Responsible**
Preparation	Fill in the P4 application form and collect signatures from all mentors including the delegate of the Board of Examiners.	Student
	Deliver P4 form to Secretariat Education and Student Affairs.	Student
	Register the P4 applications in the digital graduation registration.	Secretary Education and Student Affairs
	Check whether student meets the admission requirements.	Education & Student Administration
	Inform the student on the result of the admission check.	Student Administration (SPA-BK) on behalf of the Board of Examiners
	Schedule P4 day, time and location . Scheduled presentations will be part of the course BK-P4 and also the individual Staff Members timetables on My Timetable	Scheduling BK
	Check thesis on plagiarism by uploading thesis in available Brightspace course. See appendix 3	Student
	Send draft thesis (in PDF to all mentors and delegate at least 1 week for P4.	Student
	Check outcome plagiarism check on students graduation report	Main mentor
	15 minutes before start evaluation, prepare session.	Student (See appendix 1 for exact definition for required products for this evaluation)
At the evaluation	Chairman.	Delegate of the Board of Examiners
	Present research result/ graduation project.	Student (See Appendix 1 for exact description of the products for this evaluation)
	Ask questions.	First co-reader and then both mentors
	Give feedback on result plagiarism scan outcome.	Main mentor
	Assess academic level of students' presentation and questions of the mentors.	Delegate of the Board of Examiners
At the closed appraisal	Chairman.	Delegate of Board of Examiners
	Determine final assessment.	Both mentors, and co-reader
	Determine if the student must be advised to consult an academic counsellor.	Both mentors, and co-reader, and delegate of Board of Examiners
	Document the assessment and conclusion on the digital P4 assessment form.	Main Mentor

P4 responsibilities		
Part	**Action**	**Responsible**
Completion	Inform the student of the final assessment.	Main Mentor
	If result GO: determine P5 date and register P5 date, preferred daypart and preferred room in digital Graduation Registration (Sharepoint).	Both mentors and delegate (date) Main Mentor (register)
	Process graduation document within five workings days (Sharepoint) and send it to student by email, using the button on the assessment form.	Main Mentor
	Check whether forms are filled in correctly. Undertake action if items are missing.	Education & Student Affairs
	Register P4 completion in Osiris.	Student Administration (SPA-BK)

Evaluation 5 P5 - Public presentation and final assessment

Goal	Public presentation and final assessment.
Where	Reserved room by Scheduling BK.
When	During fixed weeks according to the academic graduation calendar.
Structure	For the student 15 minutes preparation is scheduled, followed by: 30 minutes presentation; 15 minutes questions; 15 minutes closed appraisal; 15 minutes announcing the results and graduation ceremony.
Quorum	Main Mentor, Second Mentor, Delegate of the Board of Examiners.
Chairman	Delegate of the Board of Examiners.
Assessors	Main Mentor, Second Mentor.
Subjects of assessment	Research, Presentation, Process and Project (see Appendix 1).
Method of assessment	Assessment is based on the P5 assessment criteria (see appendix 5) The mentors give the student a mark for: 1. Research (50%); 2. Presentation and questions (20%); 3. Project (15%); 4. Process (15%).
How the assessment is registered	The assessment and conclusions are registered on the P5 assessment form in the digital Graduation Registration (Sharepoint).
Consequence of assessment	All criteria should be awarded with at least 6.0 and the end mark should also be at least 6.0. Student graduates and receives subsequently his / her Master's degree diploma.

P5 responsibilities		
Part	**Action**	**Responsible**
Preparation	Register a preferred P5 date, in the P5 period according to the Graduation Calendar, in the digital registration (at P4 assessment form).	Main Mentor
	Check whether student meets the admission requirements. If yes deliver diploma to Education- & Student Affairs BK.	Education and Student Administration and Central Student Administration.
	Determine whether embargo on graduation work is desired. If yes: Apply a request: see Forms.	Student and main mentor
	Inform student on admission, procedure and P5 obligations.	Secretary Eduction and Studentaffairs
	Schedule P5.	Scheduling BK
	Print student's blanc P5 mark list.	Secretary Eduction and Studentaffairs

P5 responsibilities		
Part	**Action**	**Responsible**
Preparation	Collect the diploma and blank mark list at Education- & Student Affairs on P5 day.	Delegate of Board of Examiners
	Deliver a printed copy of the final thesis to all mentors, the Delegate of the Board of Examiners and the Director of Education at latest one week before P5.	Student
	15 minutes before start evaluation, prepare session.	Student (See Appendix 1 for exact definition for required products for this evaluation)
At the evaluation	Act as chairman.	Delegate of Board of Examiners
	Present research results.	Student (See appendix 1 for exact definition for required products for this evaluation)
	Ask questions.	Both mentors (in this order: Second, Main Mentor)
	Assess academic level of students' presentation and questions of all mentors.	Delegate of Board of Examiners
At the closed appraisal	Act as chairman.	Delegate of Board of Examiners
	Determine the marks for all 4 criteria and end mark.	Both mentors
	Register all marks on the P5 assessment form in the digital Graduation Registration (Sharepoint) and on the printed P5 mark form.	Main Mentor
	Open diploma envelop and check if student meets cum laude criteria.	Delegate of Board of Examiners
Completion	Welcome student and public to diploma ceremony and explain procedure.	Delegate of Board of Examiners
	Inform publicly the student about his / her final results and clarify.	Main Mentor
	Hand out P5 mark list to student	Main Mentor
	Hand out diploma.	Delegate of Board of Examiners
	Sign diploma (both sides).	Student
	Process graduation file within five workings days (Sharepoint).	Main Mentor
	Maximum one day after P5, upload the final thesis (PDF) and final presentation slides (PDF) to the TU Delft repository.	Student

P5 responsibilities		
Part	**Action**	**Responsible**
Completion	Check whether assessment forms are filled in correctly. Undertake action if items are missing; register completion P5.	Eduction and Student Affairs
	Unsubscribe as TU Delft student, via Studielink Remember to unsubscribe for TU Delft via Studielink in the month of your graduation. You will be unenrolled from the 1st of the next month. If you do not un-enrol in time you are required to pay tuition fees for another month. Unenrolling retroactively is not possible. Tuition fee refunds Under certain circumstances the tuition fee can be partly refunded. See website Contact Centre	Student
	Register P5 result in Osiris.	Student Administration (SPA-BK)
	After student uploaded final presentation at TU Delft repository: send diploma supplement to student address.	Student Administration (SPA-BK)

2.0 Particular circumstances

Quorum at evaluations

A quorum is required for the graduation evaluation to be valid.

- Quorum for P2: Main Mentor, Second Mentor and Delegate of the Board of Examiners.
- Quorum for P4: Main Mentor, Second Mentor, Co-Reader and Delegate of the Board of Examiners
- Quorum for P5: Main Mentor, Second Mentor and Delegate of the Board of Examiners.

Absence of the Delegate of the Board of Examiners

The Board of examiners appoints Delegates of the Board of Examiners and Deputy Delegates for all evaluations. If the Delegate of Board of Examiners is unable to attend an evaluation, she/he asks the Deputy Delegate of the Board of Examiners to replace her/him. The Deputy Delegate of the Board of Examiners is registered in the digital graduation registration by the Secretary of the Education and Student Affairs.

Absence of a Mentor (supervisor)

Known in advance

If it is known in advance that a Mentor will be unable to attend, a presentation must be held for that Mentor prior to the evaluation. The assessment and signature of the Mentor concerned must be written down with comments and feedback. This letter must be given to the Delegate of the Board of Examiners in a closed envelope or send by email. At the appraisal this assessment will be taken into account by the other mentors for determining the final assessment.

Unexpected absence

At unexpected absence there will be looked by the main mentor and other present mentors for an exam authorized deputy within the same academic field. The Secretariat of the Board of Examiners is also informed by the main mentor or delegate of the Board of Examiners about this absence. The evaluation should preferabily be continued and the final assessment should be determind after hearing the absent mentor.

The determination for a GO / NO-GO (P4) or the registration of the marks on the final mark lists (P5) only take place after consulting the absent Mentor by phone. If this isn't possible final judgement at the P4 is postponed. At the P5 a "pass" is registered for the involved academic field. In both cases a meeting with the absent Main Mentor/Daily Supervisor takes place on the shortest possible term, to determine a final conclusion. At doubt or on request of the student, it may be decided that an extra presentation must be held.

Difficulties at the appraisal

It may occur that the appraisal does not lead to an assessment. The Delegate of Board of Examiners informs the student on this situation and explains the applied procedure and the corresponding terms. Subsequently he / she collects the presented products and presents the problem to the chairman of the Board of examiners.

The chairman of the Board of examiners will reconvene the mentor team and the Delegate of Board of Examiners for a reappraisal, which he / she will chair, in which he / she will attempt to achieve consensus. In case of failing he / she will make a final decision.

2.1

Special qualifications

Cum Laude[1]

A student can receive the predicate "cum laude" for the Master's degree audit if the Board of Examiners decides to grant this distinction and the following requirements have been met:

1. the weighted average of the results of the courses not including the Master final Project is at least 8,0; passes (v) and exemptions (vr) will not be taken into consideration
2. the number of credits for the courses for which a pass (v) has been earned or for which an exemption (vr) has been granted may not exceed 20,0 credits in total
3. the result for the Master final Project is at least 8,5
4. the study duration of the Master does not exceeded the nominal period of study plus one semester, taking into account study-delays based on the "Regeling Afstudeersteun Studenten" (Student financial support) is acknowledged.

[1] *The complete system is described in Article 2.31 of the Rules and Regulations of the Board of Examiners,, Master Geomatics.*

Honourable mention[2]

On intercession of the mentor and approval of the Delegate of the Board of Examiners, the predicate "honourable mention" may be attached to the examination result. The condition for this is that the examinee achieved a mark 8,5 or higher for the graduation project.
A student who graduates Cum Laude can not be given a honourable mention.
The student is informed on the honorable mention at the diploma ceremony. The written honorouble mention will be handed over to the student within two weeks afters the final presentation.
Therefor the mentor must hand in the text for the honourable mention within one week after the P5 at the Secretary of the Board of Examiners.

[2] *The complete system is described in Article 2.32 of the Rules and Regulations of the Board of Examiners,, Master Geomatics.*

Appendix 1

Evaluation criteria

Note: consult your Main Mentor the exact interpretation of the requirements.

P1	P2	P3	P4	P5
Product: *Preliminary graduation plan*	***Product:*** *Final graduation plan*	**Product:** *Preliminary products proposed in P2*	**Product** *Master's thesis report*	**Product** *Final master's thesis report*
Research ▪ motivation/problem field/ relevance ▪ problem statement ▪ objectives ▪ research questions ▪ theoretical framework ▪ methodology ▪ preliminary project and results ▪ preliminary choice of case	***Research*** ▪ motivation / problem field /relevance ▪ position in the academic and professional debate ▪ problem statement, objectives, research questions, ▪ approach, theoretical framework, methodology ▪ references ▪ preliminary project set up and results	***Research*** ▪ methodology ▪ link theory-design & planning ▪ preliminary conclusions	***Research*** ▪ motivation / problem field / relevance ▪ theoretical framework ▪ methodological framework ▪ analyses, research results ▪ conclusions / recommendations ▪ references	***Research*** ▪ motivation / problem field / relevance ▪ theoretical framework ▪ methodological framework ▪ analyses, research results ▪ conclusions / recom-mendations ▪ references
	Presentation ▪ *written, oral, graphics and demo*	***Presentation*** *written, oral, graphics and demo*	***Presentation*** *written, oral, graphics and demo*	***Presentation*** ▪ *written, oral, graphics and demo*
Process ▪ planning	***Process*** ▪ academic attitude: evidence based, logical, critical ▪ planning	***Process*** ▪ academic attitude: evidence based, logical, critical ▪ planning	***Process*** ▪ academic attitude: evidence based, logical, critical ▪ planning	***Process*** ▪ academic attitude: evidence based, logical, critical
			Project ▪ originality and scientific level ▪ professional significance ▪ independence and own initiative ▪ planning and compliance with planning ▪ conducting research ▪ controlling the subject ▪ being able to make assessment	***Project*** ▪ originality and scientific level ▪ professional significance ▪ independence and own initiative ▪ planning and compliance with planning ▪ conducting research ▪ controlling the subject ▪ being able to make assessment ▪ *reflection on the valua of the graduation research in the larger social and scientific framework*

Appendix 2

Format Graduation plan

Front page Graduation Plan

Title graduation project
YOUR NAME
student #123456
y.name@tudelft.nl

1st supervisor: Jan Smit
2nd supervisor: Gerard Joling
Date P2: 2019–09–23

Content Graduation Plan

1 Introduction
An introduction in which the relevance of the project and its place in the context of geomatics is described, along with a clearly-defined problem statement.
2 Related work
A related work section in which the relevant literature is presented and linked to the project.
3 Research questions
The research questions are clearly defined, along with the scope (ie what you will not be doing). To help you define a "good" research question, read https://sites.duke.edu/urgws/files/2014/02/Research-Questions_WS-handout.pdf.
4 Methodology
Overview of the methodology to be used.
5 Time planning
Having a Gantt chart is probably a better idea then just a list.
6 Tools and datasets used
Since specific data and tools have to be used, it's good to present these concretely, so that the mentors know that you have a grasp of all aspects of the project.

Link to the digital version: https://gist.github.com/hugoledoux/d16d5a4d397858ac745e38f9e8561657

Appendix 3

Plagiarism scan P4

The Plagiarism Scan has been integrated in Brightspace (see: https://bright-space.tudelft.nl/d2l/home/47493) and is used to guarantee the authenticity of student's graduation work at the Faculty of Architecture and the Built Environment. The TurnItIn tool in Brightspace is used for this purpose.

Each student will upload his or her Master thesis report at latest one week before the P4 presentation. The mentors and delegates will be enrolled by Education and Student Affairs in the Plagiarism Brightspace course.

The student has the possibility to upload provisional versions of his document as often as he/she wants for plagiarism feedback. This feedback is only meant for the student. The submissions and results in the 'Provisional Version' folder are there just for the student to try things out.

The final version of the P4 document will be submitted in the final version folder of the plagiarism scan. The final submission folder will only allow one submission for each student and the plagiarism feedback will only be visible for mentors. The student will not be able to see his/her score.

After admission to the P4 the student receives detailed instructions by email about how does the Plagiarism Scan works.

Assessment of result
It is the responsibility of the main mentor to determine whether the results of the plagiarism scan in the final folder are an indication of actual plagiarism. In all cases, suspicion of plagiarism or not, the mentor should share the findings with the student, the other mentors and the delegate at the P4 assessment.

If there is a suspicion of intentional plagiarism, the mentor should discuss this with the student and notify the Board of Examiners afterwards.

About TurnIt-In:
TurnItIn has certain limitations concerning the documents which will be uploaded. The students will be informed about the limitations, the meaning of similarity scores and plagiarism in general.

Appendix 4

Reflection P5

The reflection is a standard component of a scientific thesis. The reflection is NOT a separate document or a distinct chapter, but integrated in the Introduction and Conclusions of the thesis in the form of text, with diagrams and sketches for purposes of illustration and clarification.

In this reflection the student uses a short substantiated explanation to account for the results of the research in the graduation phase (product, process, planning).

Depending on the research, reflection on a number of the following aspects should be included (you may choose in which order).

Aspect 1
The relationship between the methodical line of approach of the Master Geomatics and the method chosen by the student in this framework.

Aspect 2
The relationship between the conducted research and application of the field geomatics.

Aspect 3
The relationship between the project and the wider social context.

Appendix 5

		10	9	8	7	6
Research	50%					
motivation/problem definition	5%	Excellent motivation. The complexity of the problem is very well understood to the details and addressed	Very good motivation. The complexity of the problem is well understood and addressed	Good motivation. The complexity of the problem is fully taken into consideration	Adequate motivation. The complexity of the problem is only partially taken into consideration	Just adequate motivation. The complexity of the problem not fully taken into consideration
theoretical framework	10%	Has independently developed a new piece of theory	Has independently collected, processed and integrated theory from different fields or sources and independently applied theory to the performed research	Understands and can reproduce directly relevant theory at the level of MSc textbooks, scientific literature and applied theory to the performed research	Understands and can reproduce directly relevant theory at the level of MSc textbooks and is able to apply this theory to the performed research, after being shown how to do so	Understands and can reproduce directly relevant theory at the level of MSc textbooks, but has difficulties applying theory to performed research
analysis, research results	15%	Has produced new knowledge and/or methods, not previously available in the world.	Has produced new knowledge and/or methods not previously available in the group	Has well extended existing knowledge and/or methods, not previously available in the field	Has sufficiently extended existing knowledge, data or methods available in the field	Has only verified knowledge, data and/or methods available in de field
conclusion recommendation	15%	Perfectly structured scientific conclusions and judgement of own results, literature and specialists. Recommendations are towards new directions not available in the world	Very well balanced scientific conclusions and judgement of own results, literature and specialists. Recommendations are good and sound	Good scientific conclusions and judgement of own results, literature and specialists. Recommendations are good and sound	Sufficient scientific conclusion and judgement of own results, limited critical attitude towards literature and specialists. Recommendations are adequate	Limited scientific conclusions and judgement of own results. Recommendations are just adequate
references	5%	Sources of information are fully clear and elaborated and used fully consistently and conscientiously	Sources of information and scientific references are elaborated and used with care.	Sources of information and scientific references are clear and used in a consistent manner	Sources of information and scientific references are provided but not in a adequate way	Sources of information and scientific references are provided but are not complete
Presentation	20%					
written report	5%	Written report has perfect structure, consistency and clarity. No corrections needed to be appointed out by supervisors	Written report has a very good structure, consistency and clarity. Virtually no corrections needed to be appointed out by supervisors	Written report has good structure, consistency and clarity. limited corrections needed to be appointed out by supervisors	Written report has adequate structure, consistency and clarity. Important corrections needed to be appointed out by supervisors	Written report has just right with structure, consistency and clarity. Significant corrections needed to be appointed out by supervisors
oral (answering questions)	10%	Excellent and persuasive speaker. Answers questions perfectly to the point and with depth	Very good and persuasive speaker. Answers questions very well. Answers sound and well explained	Good speaker, give a clear presentation. Answers questions well. Answers are correct	Adequate speaker. Can answer questions. Not all answers are good	As a speaker just adequate. Has difficulties answering questions
graphics and demo presentation	5%	Excellent presentation material. Makes use of all possibilities	Very good presentation material. Makes use of possibilities	Good presentation material. Appropriate demos	Adequate presentation material. No specific demos	Presentation material just adequate
Project	15%					
originality and scientific level	8%	Has surprised us all with some brilliant new ideas	Has had several original ideas not initiated or thought of by the supervisor	Has had at least one original contribution to the project not initiated or thought of by the supervisor	Has made a partial original contribution to the project	Has made a contribution to the project, but not really original
independence and own initiative, planning	7%	The student proactively initiated (new) methods and approaches. Has complete autonomy	Methods and approaches were essentially selected by the student. Very good planning	Significant own initiative and input into methods and approaches. Good planning	Took occasionally initiative to extend and modify methods and approaches suggested by the supervisor(s). Adequate planning	Showed little initiative and executed methods and approaches suggested by the supervisor(s). Difficulties with planning
Process	15%					
skills, academic attitude	8%	Exceptional analytical, logical and integration skills, actively seeking for feedback to improve him/herself	Very good analytical , logical and integration skills, uses feedback to improve him/herself	Good analytical, logical and integration skills, can handle feedback in a positive way	Sufficient on analytical, logical and integration skills, responds to feedback, but can get demotivated by feedback	Just sufficient analytical, logical and integration skills, responds to feedback in a defensive way, or gets demotivated by feedback
reflection	7%	is good in self-reflection and steers the project, based on own insights and sought after advice from others	is good in self-reflection and takes the right decisions based on own insights and sought after advice from others	Good balance between independent opinion, self-reflection and openness to advise and feedback from specialist	Sufficient level of self-reflection, but could be more open to advise and feedback	Just sufficient level of self-reflection, but should be more open to advise and feedback

2018-02-12

Appendix 6

Reference to official regulations

Subject	Registered at	Article
Graduation project	*Teaching and Examination Regulations, Master of Science Geomatics for the Built Environment, 2019-2020.*	Article 1.7, subsection 4
Admission to the graduation phase	*Teaching and Examination Regulations, Master of Science Geomatics for the Built Environment, 2019-2020.*	Article 1.7, subsection 5
Graduation annotations (TiSD, Entrepreneurship)	*Teaching and Examination Regulations, Master of Science Geomatics for the Built Environment, 2019-2020.*	Article 1.15 and Appendix VI
Additional rules governing Master final Project	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.22
Composition of the assessment committee for Master Thesis Project	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.23
Appointment of delegate of the Board of Examiners	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.5, subsection 4
Language graduation	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.7, subsection 3
Working method of the assessment committee	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.24
Plagiarism scan	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.8b
Publication graduation work in TU Delft repository	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.17, subsection 5
Possibility for embargo on work in repository	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.17, subsection 6
Official date of Master final project result	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.25
Pass and fail rules	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.28
Pass and fail rules governing the Honours Program Master	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.29
Pass and fail rules governing annotations	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.30
Conferring the predicate "cum laude"	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.31
Honourable mention	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.32
Degree certificates, supplement and results achieved	*Rules and Guidelines of the Board of Examiners, Master of Science Geomatics for the Built Environment, academic year 2019-2020*	Article 2.33 and 2.34