



GRADUATION GUIDE 2017-2018

of the MSc degree programme

Educational Science and Technology (EST)

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Preface

Dear EST master's student,

This master's graduation guide provides additional information to the Programme Guide and the programme-specific section of the university's *Student Charter* (including the *Education and Examination Regulations*).

This guide mainly focuses on the procedures and guidelines with regard to the graduation phase of your Educational Science and Technology (EST) master's degree programme, e.g.:

- Preparatory phase of the Final Project
- While you are doing your Final Project
- Writing your thesis
- Final colloquium
- Graduation procedure
- Assessment aspects

Please note that it is recommended that a student has taken the core course 'Trending topics in educational science and technology' before he/she *full-fledged* starts his/her Final Project.

We would like to wish you success while completing your master's degree programme.

In case there are questions left, please do not hesitate to contact Huub Engbers of the *Educational Affairs Office EST* in Citadel – Room H-436) (BOZ-OWK-CES@utwente.nl).

On behalf of the EST-staff,

Yvonne Luyten / Jan Nelissen
Programme coordinators

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1. Preparatory phase of the Final Project

At the culmination of the EST programme, each student must carry out a research project that relates to a real-life problem. Rather than being a separate project, the Final Project will involve synthesising the preparatory work done in the framework of the previous courses and projects, and continuing it through a cycle of design or research activities.

1.1 *Research Proposal EST*

Both prior to (as well as partly in parallel with) their Final Project, all students will take a course called '***Research Proposal EST***'.

This course prepares for the M-EST programme's Final Project. The following aspects will be addressed (amongst other things by means of exemplary research proposals, illustrative articles and cases, and examples of best practice):

- Defining the *purpose* and the *key concepts* of the research, constructing and discussing a *conceptual model*, and formulating scientifically relevant *research questions* based on a review of the literature.
- Choosing and justifying an adequate *method of data gathering* and *data analysis* based on the purpose of the research and the research questions through separate structured assignments
- *Writing* the several sections of a research proposal (introduction, conceptual framework, method, etc.) through separate structured assignments
- Reviewing and evaluating the *scientific quality* of the several sections and the *consistency* of the written research proposal by means of assessment rubrics and formative feedback

In other words: during lectures and seminars those factors which determine the quality of the design of a research project and research proposal, such as: information skills, ethics, publication skills, will be dealt with.

At the end of the course, students have knowledge on and insight into: how to formulate and design a research plan/project, and how to write a research proposal.

For more information on e.g. the timelines, instructional modes, and assessment, please check the concerned BlackBoard site.

The *content* of the research proposal is written under supervision of the teacher of the Research Proposal course. The teacher of the Research Proposal course can be approached during one of the consultancy hours during the course to ask questions in relation to the format of the research proposal. It is possible to start writing the research proposal in parallel with the lectures of the course, or afterwards. There are a number of fixed moments during the year to submit the research proposal for assessment. The student can pick a moment that fits the timeline of his/her Final Project.

The *assessment* of the research proposal is done by the teacher of the course.

For more information on e.g. the timelines, instructional modes, and assessment, please check the concerned BlackBoard site.

1.2 How to find a project?

There are several ways to find a project:

1. Choosing from available projects:

- i. For projects with a “EDE signature” you may visit <https://www.utwente.nl/en/bms/ist/graduation/>
- ii. Available HRD-projects are presented during a lunch meeting that is organised twice per year and afterwards published on the Blackboard site: Organization EST – Educational Science & Technology
ORG AA GW EST: EST - Educational Science and Technology

After having identified an interesting topic, you have to contact/inform the concerned Graduation Coordinator first:

- Dr. Mireille Hubers for HRD-related projects, or
- Dr. Hans van der Meij for EDE-related projects, or
- Dr. Marieke van Geel for topics that are closely related to The Dept. of Teaching Development (ELAN)

2. The second option is that you search yourself for available projects offered by companies or institutes. Companies and institutes often have internship positions available, which will be advertised on their website or via the Komma-website. Before you apply to such a position, contact the graduation coordinator first. He/she will assess the suitability of the project for a final project.

Note:

The university has long-existing contacts with many organisations. Even if there is not an assignment available via the aforementioned websites, the university might already be in contact with an organisation for a project or has contacts available to approach. Therefore, it is important that you first check with the graduation coordinator whether there are existing contacts before you approach an organisation.

3. The third option is that a student comes up with his/her own project, for example in relation to his/her own professional setting (if applicable). In this case, the student also has to send a brief research proposal (one A-4 page) to the most appropriate graduation coordinator (EDE/HRD). This should include a clear problem definition, adjacent research questions, scientific relevance and feasibility, and the expected outcomes of the project. If the project seems feasible (e.g. sufficiently concurring with the faculty’s expertise, possibility to embody scientific research questions, doable in the given period), the coordinator will try to find a supervisor who is willing and able to supervise the project.

So, basically, the EST Graduation Coordinators need to be contacted first. They are the ones who ultimately will decide about whom from the scientific staff will be the project’s

supervisor.

Note: the EST Graduation Coordinator is also the one who ultimately has the final say whether a project is viable or suitable, and who thus approves or disapproves an envisaged project.

In this respect, a student has to consider the following:

- Organisations/companies may (in most cases) not be familiar with the learning objectives of an EST Final Project.
- Organisations/companies sometimes may expect that a student will also do an internship.
- Organisations/companies have to be aware that the formal assessment of the Final Project will be done by the university supervisor.
- It is our experience that external projects consume more time than internal projects.
- Non-Dutch students have to consider that their envisaged project will require participants who master English and materials in English.
- (In view of feasibility and scientific level) keep in mind that doing an internal (UT-based) Final Project is an excellent opportunity to be involved in an academic environment and to contribute to contemporary scientific research.

In addition (and especially) if a student contacts a company directly himself/herself, the faculty has one urgent request:

Please handle your contacts with care, and always keep the EST Graduation Coordinator informed.

[The EST programme and the Faculty of Behavioural, Management and Social Sciences also need contacts with companies/institutes for other reasons than guiding a specific Final Project. We need them for other projects and research as well. We ask students to terminate the contacts in a decent way, in case a student should decide not to do the Final Project there. Let them know politely that an assignment has been found elsewhere. A student might refer his/her 'unused' contacts to the EST Graduation Coordinator. In case a student pays a company/institute an orienting visit, the student has to make it very clear that it is not yet certain that he/she will indeed be doing the Final Project there.]

1.3 *Is it a suitable project?*

The core of a Final Project implies a design or a research component (including empirical, evaluative and reflective aspects, grounded in a theoretical and scientific framework). In order to be able to determine the suitability of a Final Project (especially with regard to projects who are not “in stock” of the Faculty’s departments), the student has to address the following questions in collaboration with the EST Graduation Coordinator:

- What is the relevance of the project for the target organisation and/or for the academic discipline Educational Science?
- If applicable, will there be sufficient and qualitatively adequate guidance from the company/organisation?

- Is the problem indicated a real problem? Are the formulated research questions embedded in relevant literature?
- Will there be sufficient opportunities to find out what causes the problem, or to collect the needed information?
- Is it possible to complete the project in the time given?
- Does the project generate student's enthusiasm and commitment?

Discussions on these questions should result in the conclusion whether a student's ambition is or could become a feasible project.

1.4 Determining the conditions

Once approved, it is required to make clear arrangements and to determine conditions before the Final Project actually begins. The following issues should be addressed timely:

- Who will coach the student within the company/institute and to whom will the student report?
- Is there a workplace within the company/institute (including an own desk where the student can work undisturbed)?
- Is confidentiality an issue to consider?
- What facilities will be open to the student?
- What other conditions of employment are there (remuneration, insurance, holidays, working hours, etc.)?

Mainly if the project is a design project, some companies or institutions will automatically offer an official contract. Others will consider it as not necessary to draw up an official contract covering the above-mentioned elements.

Anyway, the student should make sure, whether there is sufficient communication and consultation between company/institute and university on these formal issues before the Final Project takes off. In this respect, the student is leading in the process, even if the supervisor holds final responsibility in this matter. We strongly advise not to start a Final Project before all of these points have been taken care of and before discussed with the supervisor.

Note: International students may need a work permit to execute a Final Project in a company or institute. This also may apply to Dutch students who plan to execute a Final Project abroad.

In this regard, students should contact the UT's International Office:

internationaloffice@utwente.nl

1.5 Arrangements with the supervisor

Once a project has been approved, and once being allocated (by one of the graduation coordinators) to a supervisor students need to make clear arrangements with him/her about what they may expect from each other, and which tasks and responsibilities both the student and his/her supervisor have. These arrangements have to be included in the *Final Project Contract* (see: Appendix A).

This contract is signed by the members of the *Graduation Committee*.

The Graduation Committee consists of:

- The ‘daily’ supervisor (i.e. 1st supervisor),
- The 2nd reader (i.e. 2nd supervisor), and,
- (If applicable) the – external - company/institutional coach.

This Final Project Contract obliges the University of Twente to guide the student and to assess the student’s Final Project. It forces the student to complete the Final Project.

Note:

- The student and his/her supervisor should be specific about how and when both parties will keep in touch.
- The student holds first responsibility of staying in contact with the supervisor.
- The student informs the external coach/supervisor precisely and timely on their role in their graduation project. The UT supervisor holds responsibility of the assessment and grading. The external supervisor plays the role of adviser in the assessment of the Final Project, particularly related to the process-related issues.
- The student has to send their external supervisor a copy of the programme’s Programme Guide and a copy of this Graduation Guide.
- In case the University of Twente supervisor and the external supervisor do not know each other – the student is advised to check with his/her supervisors whether it is desired that they meet at the beginning of the Final Project. This will allow them (next to become acquainted) to discuss about roles and responsibilities.

1.6 Assessment of the ethical permissibility of the proposed research

In case a Final Project involves the usage of human test subjects the student has to submit the research proposal to the Faculty’s Ethics Committee.

The student has to discuss and decide in close collaboration with the project’s supervisor whether this is the case.

Full information on the (web-based!) procedure can be obtained from the following webpages:

- <http://www.utwente.nl/organisatie/structuur/faculiteiten/bms/onderzoek/ethiek/> (in Dutch), and
- <http://www.utwente.nl/en/organization/structure/faculties/bms/research/ethics/> (in English)

On that website you will find all rules and regulations in this regard.

In any case, this seeking for approval (if applicable) has to be done **prior** to the actual start of the Final Project.

2. While the student is doing the Final Project

2.1 At the start of the Final Project

At the outset of the Final Project, the student has to devote plenty of time to (*social orientation*). This is especially recommended when the Final Project is executed externally. It is of benefit to talk also to those who are not directly involved in the project to find out how people feel about the subject in other parts of the organisation (or even outside the organisation).

It is important that the student feels '*at home*' within a few weeks and that people know who he/she is. This particularly applies to design projects.

At this stage, the student has to

- consider in particular the formulation of the Final Project. Has something been forgotten, are modifications required? (Remember the points referred to in paragraph 1.2!),
- check carefully the stage-by-stage planning. Does it (still) look feasible?

Note:

At this stage, the *Final Project Contract* (see: Appendix A) is concluded and signed, including a systematic listing of all conditions, and handed in at the Educational Affairs Office (BOZ).

2.2 During the Final Project

Some issues require special attention. The student has to:

- Consider his/her motivation. What was the goal he/she planned to reach? Does he/she (still) want to go for it? Is he/she still worried in any way about the feasibility?
- Review his/her relations within the institute/company. In case something is wrong, he/she should not hesitate to contact the UT supervisor, preferably at the beginning rather than discovering it does not work out at the end. The student has to inform the supervisor about the social and physical professional environment he/she is in, and has to inform the supervisor if there are any unexpected changes. This implies that next to the scheduled contact moments with the supervisor, the student and his/her supervisor have to agree that in case of unexpected circumstances, they will schedule additional meetings.
- Realise continuously that the student holds final responsibility of keeping in contact with the supervisor and the Faculty.
- Be aware that, with respect to written reports and discussions with the UT supervisor and the corporate/institutional coach, the following remarks could be useful:
 - always make written summaries of meetings, and communicate these summaries with the supervisor(s). This is an easy way to check if agreement exists on the topics discussed;

- o send – interim - reports in due time, and make clear what is requested from the addressee, e.g.: *'please read and give your comment before ...'*.
- o (when handing-in an improved version of a report) students always have to make sure to send the previous version, commented on by the supervisor, too. If applicable, a student also has to make sure that the institutional or corporate coach signs for the acceptance of interim products (and, of course, for the final product).
- Be aware what may be expected from the supervisor and the institutional or corporate coach: constructive comments, comments on contents, form of research, and presentation of results, comments on the way the student functions (personality aspects, strengths and weaknesses of the person at work).
- Start the thesis-writing-process as soon as possible after commencing the project, and define a planning in this regard with the supervisor and/or *Graduation Committee* (“***what has to be submitted when?***”).
- While planning the Final Project process, ask your supervisor when he/she will be absent (e.g. conference, vacation), and make sure to consider this in your time-line.

3. Writing the thesis

Every Final Project usually includes (a) a design or evaluation component and (b) a research component. Both demonstrate the ability of the student to use and process scientific knowledge. In a design-focused or evaluation-focused project, the design or evaluation activities have a central place whereas the research activities are mainly supportive for understanding of the problem and for assessing the problem solving capacity of the design or evaluation result. In research-focused projects, the focus is on data collection, analysis and interpretation, based on theory and a well-designed research plan, and leading to grounded recommendations for practice. Therefore the thesis intends to inform about:

- The problem that led to the Final Project.
- The research that led to the definite problem statement and to the methods selected to solve this problem(s), including the methodology used.
- The design or evaluation and research methods used, and the results obtained. This may be done in the form of a description and evaluation of results (e.g. a product), and conclusions and recommendations about the design or evaluation and research process, in such a way that the thesis embodies a sufficient scientific level.

3.1 Report structure

Outlining a table of contents and writing an introductory chapter are good ways to start the thesis! The student will find that he/she has only fully grasped what he/she wants to achieve when the student is able to write it down in a way that is clear to others.

The master's thesis normally consists of the following elements:

- *Table of Contents.* The student should use short informative headings. The table of contents should actually give a comprehensive impression of the contents of the report. Keep in mind that headings such as 'formulation of the problem', 'processing of data', 'conclusions and recommendations' do not contain information that is specific to the assignment.
- *Foreword/Acknowledgement.* The foreword is actually not a part of the report. It is a personal note that the author usually adds at the last minute, for example to express thanks.
- *Summary.* It must be possible to read and make sense of the summary as a stand-alone text. Principally, it should not contain references to the thesis or appendices. The summary should provide a concise impression of the problem at the outset of the Final Project. An account of the methodology and the processing and analysis of data do not belong in a summary. Of by far the greatest importance is a clear outline of results and recommendations. After all, the reader, who restricts his or her reading to the summary, is primarily interested in the achievements of the Final Project.

- *Introduction.* It is required to start the thesis with an introductory chapter. An introduction forces the student to clarify the following issues for himself/herself and for the reader:
 - *What are you going to do in the thesis or the relevant chapter (formulating the central problem/questions)?*
 - *Why are you going to do this (motivation, background, and context)?*
 - *How are you going to do this (a discussion of the table of contents)?*
- *Description of the organisational context (especially for design-oriented projects).* Especially for external readers it is useful to provide an impression of the organisation within which the student is carrying out the Final Project (a brief history, an idea of the structure and the nature of products or services, strategy, scope, market, etc.). Please focus on the department or division of the company/institution involved.
- *Exploration and definition of the (research) problem.* Most assignments, either design or research oriented, begin with a problem statement or research question. Nevertheless, during the orientation phase, it is common to keep eyes and ears open and thus ascertain 'who actually has what problems', and what is the relevance of the research question. This may or will lead to a modification or sharpening of the problem or question defined. The initial exploration should in any case lead to a clear statement of the problem or question. Such a reconnaissance of the problem is also of help to the reader.
- *Design/research approach.* The student should give his/her readers clear insight into the followed method. This may involve a phased approach to the study, an overview of design and/or (evaluative) research methodology, insight into the area from which the student has drawn theoretical references, and so on.
- *Evaluation/Discussion.* Describe the evaluation methods applied, and account for the sources for the discussion and the results from these.
- *Conclusions and recommendations.* Limit the number of conclusions and/or recommendations. Formulate them concisely and clearly and ensure that they have been well laid out.
- *Reference list.* During the project, the student will make use of existing theories, models, and so on. At each stage, he/she has to make sure that readers understand why specific theories have been used (Note: cite those theories carefully and use a standard - **APA**- style). It must always be clear whether it is the student who is 'speaking' or someone else.
- *Appendices.* Appendices can be extremely useful, but the student must ensure that the reader is able to understand the thesis without need to consult the appendices. The use of appendices can help the student to make the thesis itself more concise and readable.

In general, the student has to make sure that the content and the structure of the thesis are aligned with the research proposal.

3.2 *Publication and confidentiality of thesis*

According to standard procedures the student will upload the thesis for non-confidential publication after graduation. In case the organisation where the student conducts the final project insists on deviating from this public archiving of the thesis, the student must mark this on Appendix A and submit a request for changing this public status into “confidential” to the Examination Board.

Note: it may occur that during the process, the supervisor indicates that the content of the student’s thesis has the potential to be published in a (scientific) journal. In that case, the student needs to discuss with the supervisor to postpone the uploading to the UT repository (<https://essay.utwente.nl/>)

3.3 *Other matters of attention*

Note: the thesis has to be written in English!¹

When writing a thesis, the following points are extremely important (not necessarily in this order):

- The thesis should be **limited to 60 pages**, excluding appendices, where the student has to realise that the main body of the text needs to be composed of the exploration and definition of the (research) problem, the design/research approach, evaluation/discussion, and conclusions and recommendations.
“The art of writing is the art of knowing what to exclude!”
- During the writing process, the student has to have a broad but engaged and interested audience in mind. A student must also be able to explain to non-specialists what he/she means.
- With respect to the English language: the student has to use **British (UK) spelling** conventions. Use a spelling checker.
- The layout needs to be clear and reader-friendly. The thesis should take the reader by the hand. It is recommended to provide a short summary at the beginning of each chapter.
- When the thesis takes shape it is important to pay attention to the broad lines of the argument, the structure, transitions, and so on. In this respect, the student should also pay attention to the end of the thesis, which must link up with the beginning. It must be clear that a student ultimately answered the posed questions at the beginning.

Basically, the master’s thesis needs to meet the requirements of the APA-style as formulated in the most recent edition of the “APA-manual” or the “Concise rules of APA-style”.

¹ In case a student would like to deviate from this rule, he/she has to submit a written request to the Examination Board

In addition, our Faculty prescribes that the thesis needs to embody the following standard settings:

- Tables and figures have to be included in the text
- Single line spacing (the draft versions of the thesis may, upon agreement with the supervisor, have a double line spacing);
- Font (of the regular body text): Times New Roman 11" (or equivalent, e.g. Arial 10")
- Margins: Top, bottom, left, right: 2.5 cm
- Standard tabs: 1.25 cm
- Justify the whole document (i.e. also the marginal line at the right-hand side is aligned)

4. Final colloquium

The student may only set a date for his/her final colloquium (i.e. oral presentation) upon approval of his/her supervisor (in consultation with all members of the *Graduation Committee* and the *Educational Affairs Office EST*)! (See: Appendix B). This is the so-called **Green Light**.

This is normally the case when the Graduation Committee, except for some minor textual changes, approves the thesis.

The final colloquium is a public event².

A student may invite friends, colleagues, relatives, etc.

During the colloquium, the UT supervisor acts as host. He/she will introduce the student, after which the student presents his/her Final Project (duration approx. 25 minutes). After that, there are 20 minutes available for discussion. The Graduation Committee will then retreat in order to formulate the result (i.e. to determine the grade) of the Final Project as a whole. The student will be told the result, including getting feedback, (either in a personal discussion of 15 minutes maximum, or in public).

The student and the Graduation Committee agree prior to the final colloquium on the way they will announce the grade.

The following guidelines are important for the colloquium:

- Since the colloquium is a public event, the student has to prepare his/her presentation in English!

Note: Dutch students may (after having consulted the Graduation Committee and upon their approval) switch to a presentation in Dutch in case it turns out that there is no non-Dutch audience present.

- The student should have a clear picture of the audience in the room. He/she should bear in mind that listeners are not necessarily specialists and probably do not know anything about the topic.
- The student is advised to use tools (e.g. PowerPoint) to clarify the presentation. However, the student has to take care that the colloquium does not become merely a duplication of the pictures and texts presented on the screen. He/she should not use too many slides and he/she should ensure that each slide contains a limited amount of easily legible information.
- At the beginning of the presentation, the student has to outline the various sections of the discourse, and he/she needs to make sure that the audience knows which part is dealt with at each stage.

² In case a student completes his/her final project and thesis writing from a distance, then alternative modes for the final colloquium may be arranged, upon approval of the Examination Board.

- Although the total colloquium session takes 45 minutes, the presentation itself only will take 25 minutes. It is very difficult to time a speech accurately. Once '*in full flow*' time passes rapidly. A student should be aware of this. Therefore, it is strongly recommended to give the presentation a 'dry run' and time it to check how long it will take.
- Look at the audience. Do not keep looking at notes or overhead sheets, talk to the board, or screen.
- Once the presentation is finished, there is an opportunity for the audience to ask questions. The colloquium is not yet quite over. Therefore, the student has to listen carefully to the questioners.

The colloquium itself will be evaluated also. This evaluation will weigh in the total assessment of the Final Project (see chapter 6 of this guide).

The student may wish to invite his/her guests at the colloquium for a drink and a snack afterwards, at his/her own costs.

5. Graduation procedure

5.1 General procedures

- In the *Final Project Contract* (see: Appendix A), the student's *Graduation Committee*, mandated by the Examination Board, represents the Faculty. The *Graduation Committee* should approve the *Final Project Contract* and has to provide the necessary guidance for the project's execution. The *Graduation Committee* also assesses the Final Project and the thesis (where the UT members of the committee hold responsibility for the final grade).
- As soon as the *Graduation Committee* and the student have approved and have signed the *Final Project Contract*, the student has to submit the contract at the *Educational Affairs Office EST*.
- The *Educational Affairs Office* will check whether the student fulfilled all stipulated requirements (see the *EST Programme Guide* and *Education and Examination Regulations*) to start with the Final Project, and the office will inform the student on the outcomes of this check in case the student does not fully meet the requirements.
- The student may only set a date for his/her final colloquium (i.e. oral presentation) upon approval of his/her supervisor via completing (and having signed by the supervisor) the Registration and Approval for Graduation form (See: Appendix B). This is called: the **Green Light** form.
This is normally the case when the Graduation Committee, except for some minor textual changes, approves the thesis.
This Green Light form has to be submitted at least 15 working days prior to the envisaged date of the final colloquium to the Educational Affairs Office EST

Note:

During summer period most of the staff will be on summer leave. This means that if a student plans to graduate in July or August, then he/she has to inform the Educational Affairs Office timely, preferably already in June.

Please be aware that one academic year spans the period 1 September until 31 August. This implies that in case a student plans to graduate after 31 August, he/she has to **re-register** to the university. Subsequently he/she has to pay an additional tuition fee. The *Educational Affairs Office EST* provides more information on this issue.

- Based on the Green Light Form, the *Educational Affairs Office* will evaluate whether all coursework has been completed successfully and whether all grades have been registered officially. The *Educational Affairs Office* will inform the Examination Board on this evaluation. Based on the evaluation, the Examination Board will decide whether the student is entitled to graduate.

- A student has to send a written request to the *Educational Affairs Office* in case he/she, in addition to the required units of study, successfully completed additional courses, and he/she would like to have these additional courses been listed on the supplement to the certificate (i.e. Diploma Supplement).
- However, these additional courses are not taken into account when it comes to an optional “Cum Laude” (i.e. With Honours) award.
- The student has to send the thesis to all members of the *Graduation Committee*. Furthermore the student uploads the thesis to the UT Student Theses and UT Archive online <http://essay.utwente.nl/>. (for limitations in this regard, see: paragraph 1.6)
Besides the *Educational Affairs Office EST* receives two (2) digital copies: 1 in MS-Word and 1 in ‘*.pdf’ format ultimately 3 days before the colloquium takes place.
- The Examination Board is entitled to grant the distinction “graduating Cum Laude”. The Examination Board will take the following conditions in consideration in the decision for graduating Cum Laude:
 - no graded work was redone
 - no graded work had a result of less than a 7
 - the average of the grades is not less than an 8, and
 - the Final Project is graded a 9 or more.

Despite not fulfilling these conditions, a member of the Examination Board or the student’s *Graduation Committee* is entitled to propose a “Cum Laude” award to the Examination Board. Besides, the Examination Board will only award a “Cum Laude” designation in case the Final Project has been completed under the supervision of and has been assessed by a faculty’s examiner.

5.2 Mobility Online

As soon as students are at the stage of having completed the Final Project contract (see: Appendix A), they are required to register their Final Project in the UT system *Mobility Online*.

Please note that the registration process consists of several steps which you all have to complete before you can actually graduate.

(A) When you do your Final Project in an **UT (internal) topic** you need to register in the so-called “**Graduation – internal pipeline**” via this web link:

- First/initial registration:
https://www.service4mobility.com/europe/BewerbungServlet?identifier=ENSCHED01&kz_bew_pers=S&kz_bew_art=OUT&aust_prog=INT_GRAD&sprache=en

or

(B) When you do your Final Project **externally** in an organisation/company you need to register in the so-called “**Graduation pipeline**” via this web link:

- First/initial registration:
https://www.service4mobility.com/europe/LoginServlet?identifier=ENSCHED01&sprache=en&kz_bew_art=OUT&kz_bew_pers=S&aust_prog=grad&trans_roll_id=8&fromApplication=1

Upon having initially registered, you need to **login** via:

- https://www.service4mobility.com/europe/LoginServlet?org_id=102&sprache=en&identifier=ENSCHED01

Option (A): Steps to complete in the Mobility Online’s “Graduation – internal pipeline”:

At the start of your Final Project:

Step 1: Fill in the application form and print it.

The application form needs to be completed as soon as your research proposal has been approved by your first supervisor (Final Project contract). Despite the fact that this Mobility Online form requires the signature of your supervisor, for EST students this is not mandatory (since the Final Project contract has already been signed). The Educational Affairs Office staff will sign this Mobility Online form upon having checked the Final Project contract.

Please submit this application form simultaneously with the Final Project contract in printed form at the Educational Affairs Office (EAO) (Citadel, room H-436).

At the end of your Final Project:

Step 2: Mark your Final Project as *finished*

As soon as you have completed your Registration and Approval for Graduation form (see: Appendix B), and you received the Green Light for your colloquium, login to the Mobility Online system to **mark your project as finished**.

Option (B): Steps to complete in the Mobility Online’s “Graduation – pipeline (extended)”:

At the start of your Final Project

Step 1: Fill in the application form

- The application form needs to be completed as soon as you are **starting to work on your Final Project**.

Step 2: Answer question regarding type of thesis

- Answer the question whether you have an internal Final Project (at the UT) or an external Final Project (in a company or organisation).

Step 3: Send an e-mail to the Educational Affairs Office (BOZ-EST-CES@utwente.nl) and inform them about your Mobility Online registration

Step 4: (upon having received a confirmation of your application via Mobility Online), fill in the proposal form

- The proposal form needs to be completed as soon as your Final Project has been approved by your first supervisor (Final Project contract / Appendix A). Despite the fact that this Mobility Online form requires the signature of your supervisor, for EST students this is not mandatory (since the Final Project contract has already been signed). The Educational Affairs Office staff will sign this Mobility Online form upon having checked the contract / Appendix A.

Please submit this proposal form simultaneously with the Final Project contract in printed form at the Educational Affairs Office (EAO) (Citadel, room H-436).

Step 5: Answer the scholarship question

- If you are working on your Final Project at the UT, or in a company/an organisation within the Netherlands, or in a company/an organisation in your home country, **indicate ‘No’**.
- If you are working on your Final Project in a company/an organisation outside of the Netherlands or your home country, **indicate ‘Yes’**.

Step 6: Fill in your address

- Fill in your residential address where you will stay during the Final Project.

At the end of your Final Project

Step 7: Optional: in case of changes to the duration or content of your thesis project.

- In case the content of your Final Project has changed (title or thesis description), please alter the information during this step.
- In case the duration of your Final Project changes (project takes longer than expected), you can change the expected end date during this step.

Step 8: Mark the ‘Deliverables as submitted’

- Hand in the Evaluation Form at the Educational Affairs Office (EAO) (RA3284).
- Upload your thesis in the UT repository, and send it to the EAO.
- After you have completed these actions, you can mark the deliverables as submitted in Mobility Online.

Step 9: Project finished, end of Mobility Online registration

- The EAO office will check the deliverables and will register your grade for the Final Project in Osiris.
Afterwards the Mobility Online registration will be marked as ‘finished’. This is the end of the registration.

5.3 *Graduation and awarding of certificates*

Immediately after the final colloquium, authorised by and on behalf of the Examination Board, a member of the *Graduation Committee* will hand over the certificate to the student.

The certificate states that the student has satisfied all the master’s programme requirements. The student and the Chair of the Examination Board sign the certificate. Handing over the certificate is a public event.

The *Educational Affairs Office* will send the supplement to the certificate (listing all units of study reviewed / transcript of records) to the student at a later stage.

6. Assessment and Grading of the Final Project

The following aspects are taken into account in the evaluation of the Final Project:

- the quality of the thesis
- the quality of the colloquium
- the student's professional attitude and skills

More specifically, the following assessment aspects apply (see also: Appendix C):

1. Problem statement and theoretical framework

Criteria in this regard:

- Various (core) concepts, theories, models and working methods of the discipline are appropriately chosen and used (in combination) and show a thorough understanding of the meaning and interrelationships as well as good knowledge of the domain and area of specialization.
- An extensive and in-depth literature review has been performed as a theoretical framework for the problem statement.
- The problem statement and/or the research question are explicit, carefully developed and formulated (including preconditions, limitations, sub-questions etc.), and researchable (providing direction to the research strategy).
- The problem statement is justified and embedded in a theoretical framework; the choices and suppositions made are clearly indicated and the scientific and social relevance of this research is clearly and adequately substantiated.
- In the case of an external (design) assignment: needs, wishes and demands of the client are adequately translated into a specific problem statement, a characteristic which is expressed in the description and the justification.

2. Research plan and analysis

Criteria in this regard:

- A well-founded choice of research method(s) and instruments and/or design plan has been made, corresponding to the statement of the problem and partly based on the theoretical framework.
- The acquisition of the data has taken place in an adequate and transparent manner, making the data valid and reliable.
- The choice for the method of processing and the processing of the data has taken place in a comprehensible and transparent manner; the results are valid and reliable.
- The student has performed a correct, advanced analysis, which logically arose from the problem statement and results.
- In the case of an external (design) assignment: the design approach has been applied adequately, including the implementation and evaluation, and has resulted in a high-quality design of intervention(s) or instrument(s).

3. Conclusion, reflection, discussion

Criteria in this regard:

- In the conclusion, the initial problem statement / research question is answered.
- The student has managed to lift the conclusions to a higher level (abstraction, generalization) and an interpretation and consideration are given concerning the practical, social and/or scientific relevance of the research (related to the theoretical framework, recent research), while attention is paid to ethical aspects.
- The student has critically assessed and discussed the research and the results (reflection, good argument and argumentation, recognition of strong/weak point, putting the research into perspective). The student has reflected on the implications of strong/weak points of the research and on possible solutions.
- The thesis has contributed to the development of new knowledge and ideas and to the formation of theories, models and instruments (this could also be: valid replica with expansion of existing research).
- The student has made a proposal for follow-up research based on practical and theoretical considerations.

4. Written report

Criteria in this regard:

- A logical, consistent design and structure. A concise representation of the total research.
- Correct language use.
- Good readability, an academic style of writing (concise, according to the conventions for publications in the discipline).
- A correct presentation and lay-out of data in tables, figures etc. and correct references to literary sources, other information sources etc. (according to conventions, APA style).
- In the case of an external (design) assignment: audience-oriented justification of the design process and results for the client and other parties involved; solutions in the form of advice tailored to the client.

5. Process, functioning of the student

Criteria in this regard:

- A high level of independence; limited need for help and supervision.
- Dedication and initiative.
- The ability to reflect and deal with feedback (learning capacity).
- A project-based methodical and goal-oriented method of working.
- Completion within the scheduled time.
- Good contact, coordination and communication and a pleasant and fruitful collaboration with the parties involved, such as the internal supervisor(s) and, if applicable, the external client and other external involved parties.

- If ethical values played a role when acting within the framework of the assignment (professional ethics), the student has shown to know these values and to apply them adequately.

6. Oral Presentation and defence

Criteria in this regard:

- Good argument, good argumentation and justification.
- The presentation is concise, relevant and informative. Good distinction between major and minor issues.
- The presentation is appealing, has an appropriate and clear structure, is understandable and comprehensibly structured.
- Adequate use of media technology.
- Adequate answers to critical questions about research and to theoretically-oriented questions about the subject of the research.
- In the case of an external (design) assignment: a presentation about the design process and the results, tailored to the client and other parties involved; the solution is given in the form of clear and convincing advice.

With regard to these assessment factors above, the following weighing factors apply:

1-3	Assessment on content	50%
4:	Written report	20%
5.	Process, functioning of the student	20%
6.	Oral Presentation and defence	10%

7. Checklist of Final Project steps and procedures

The scheme below can be helpful in fulfilling the Final Project correctly and timely.

Nr.	Activity	Done?
1	Read the Graduation Guide	
2	Select a topic that attracts your interest (check: dedicated websites) and contact the appropriate EST Graduation Coordinator about it.	
3	(Via one of the EST Graduation Coordinators) Find a supervisor for the project	
4	Discuss with supervisor(s) about the project.	
5	Fill in the Final Project contract (Appendix A) and hand it in at the Educational Affairs Office. Please check if all signatures have been placed on the document.	
6	Register the Final Project in Mobility Online, and follow all concerned steps (see: paragraph 5.2 of the Graduation Guide). Hand in the Mobility Online proposal form (together with the Final Project contract) at the Educational Affairs Office.	
7	According to standard procedure the thesis will be posted publicly after graduation. In case the organisation where you conduct your final project insists on deviating from this public archiving of the thesis, or when you/your supervisor aim at publication of an article on the topic, you must submit a request (with – in writing – support from your supervisor and (if applicable) company/organisation) for changing this confidentiality to the Examination Board.	
8	Submit the research proposal for assessment to the teacher of the Research Proposal course (see Blackboard for deadlines).	
9	If applicable to your research assignment, you need to ask for approval of the Ethics Committee. Submit the ethical approval form, always in accordance with your supervisor. Only after ethical approval, data collection can be started.	
10	Stay in touch with the supervisor(s) frequently. The student takes the initiative.	
11	Be sure that you and your supervisor are aware of the assessment criteria (https://www.utwente.nl/est/en/masterest/graduation/rubric/).	
12	Make sure that your thesis does not exceed the max. 60 pages. This requirement may obstruct setting a date for your colloquium	
13	Plan the “ <i>Green Light Meeting</i> ” with the graduation committee timely. In the green light meeting, the student submits the thesis for approval.	
14	If you receive “green light” from the supervisor(s) you can plan the final colloquium. Fill in the registration form Appendix B and hand it in at the Educational Affairs Office <u>timely</u> (at least 15 working days before the envisaged date of the colloquium). Please Check if all signatures have been placed on the document.	
15	Prepare the presentation (do a “dry run” (!) and make arrangements with the Education Affairs officer to reserve a lecture room for your colloquium).	
16	Submit your thesis to the UT Student Theses and UT Archive through: http://essay.utwente.nl/	

	Also hand in the thesis digitally (= MS-Word and *.pdf) at the Education Affairs Office before the colloquium presentation.	
17	Upon having submitted your thesis at the Educational Affairs Office, Finalise your Mobility Online registration	

8. Contact information

Graduation Coordinators:

Dr. Mireille Hubers
m.d.hubers@utwente.nl
Cubicus, room B-217
053-489 1115

Dr. Hans van der Meij
h.vandermeij@utwente.nl
Cubicus, room B-224
053-489 3556

Dr. Marieke van Geel
m.j.m.vangeel@utwente.nl
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053 – 489 1117

Jan Nelissen
j.m.j.nelissen@utwente.nl
Cubicus, room C-104
Phone: 053 – 489 3588

Educational Affairs Office EST

Huub Engbers
BOZ-OWK-CES@utwente.nl
Citadel, Room H-436
053 – 489 4122

Office hours: Monday, Tuesday, Thursday, Friday: 10:00-14:00h

Fill in at the start of your Final Project

APPENDIX A: Final Project contract

Family name: _____

Given name(s): _____

Student number: S _____

Title Final Project: _____

Short description: _____

(*what, why, where*) _____

External assignment (if applicable):

Name company/institution: _____

Address: _____

External supervisor: _____

Phone number (external): _____

Graduation Committee

1st Supervisor: _____

2nd Reader: _____

External supervisor (if applicable): _____

Period (If applicable, please mention the period when you will be abroad for Final Project work also)

Start (month – year): _____

Expected duration (in months): _____ (plannend) date of completion _____

Study plan (only if you still have to complete courses, please fill in this scheme)

Code	Course	Credits (EC's)	(Planned) date of completion

Note: According to standard procedure you will upload your thesis for non-confidential publication after graduation. In case the organisation where you conduct your final project insists on deviating from this public archiving of the thesis, you must submit a request for changing this public status into “confidential” to the Examination Board.

The thesis must be handled confidential:

No Yes, and I will submit a request to the Examination Board

Signatures

1st Supervisor: _____

Date: _____

2nd Supervisor: _____

Date: _____

Student: _____

Date: _____

Note: After signing the contract, the student has to submit the original copy of this contract to the Educational Affairs Office EST (Citadel, Room H-436). Keep a copy for yourself and supervisor.

APPENDIX B: Registration and approval for graduation

Family name: _____
 Given name(s): _____
 Date of birth: _____
 Place of birth: _____
 Address: _____

 Phone number: _____
 Student number: S _____

Master's student in the MSc programme Educational Science and Technology (EST) would like to register for graduation on _____ **(exact date!!!)**

Time: _____ (**select:** 9:00, 11:00, 14:00 or 16:00 hours)

Expected number of people attending the colloquium : _____

As the supervisor of the Final Project and master's thesis I declare that it is feasible for the candidate to present his/her work during a public colloquium on _____ *(date)* and that he/she then will graduate from the EST Programme of the Faculty of Behavioural, Management and Social Sciences at the University of Twente.

In this regard, as a supervisor I checked that the presented (draft) version of the thesis does not exceed the max. 60 pages

Name supervisor: _____
 Signature: _____
 Date: _____

The following units of study have **NOT** been completed yet

Code	Course	Planned date of completion

Signature student: _____
 Date: _____

APPENDIX C: Assessment forms

Assessment master's thesis EST (1 - 5)

(Page 1 / 2)

Name student: _____ Student number.: _____
Course code: _____ Date: _____
Course name: _____
Title master's thesis: _____

1-3 Assessment on content [(1+2+3)/3] (50%)

Assessment (55-100):

x 5
Points

1. Problem statement and theoretical framework

Assessment (55-100):

Criteria

- Various (core) concepts, theories, models and working methods of the discipline are appropriately chosen and used (in combination) and show a thorough understanding of the meaning and interrelationships as well as good knowledge of the domain and area of specialization.
- An extensive and in-depth literature review has been performed as a theoretical framework for the problem statement.
- The problem statement and/or the research question are explicit, carefully developed and formulated (including preconditions, limitations, sub-questions etc.), and researchable (providing direction to the research strategy).
- The problem statement is justified and embedded in a theoretical framework; the choices and suppositions made are clearly indicated and the scientific and social relevance of this research is clearly and adequately substantiated.
- In the case of an external (design) assignment: needs, wishes and demands of the client are adequately translated into a specific problem statement, a characteristic which is expressed in the description and the justification.

2. Research plan and analysis

Assessment (55-100):

Criteria

- A well-founded choice of research method(s) and instruments and/or design plan has been made, corresponding to the statement of the problem and partly based on the theoretical framework.
- The acquisition of the data has taken place in an adequate and transparent manner, making the data valid and reliable.
- The choice for the method of processing and the processing of the data has taken place in a comprehensible and transparent manner; the results are valid and reliable.
- The student has performed a correct, advanced analysis, which logically arose from the problem statement and results.
- In the case of an external (design) assignment: the design approach has been applied adequately, including the implementation and evaluation, and has resulted in a high-quality design of intervention(s) or instrument(s).

3. Conclusion, reflection, discussion

Assessment (55-100):

Criteria:

- In the conclusion, the initial problem statement / research question is answered.
- The student has managed to lift the conclusions to a higher level (abstraction, generalization) and an interpretation and consideration are given concerning the practical, social and/or scientific relevance of the research (related to the theoretical framework, recent research), while attention is paid to ethical aspects.
- The student has critically assessed and discussed the research and the results (reflection, good argument and argumentation, recognition of strong/weak point, putting the research into perspective). The student has reflected on the implications of strong/weak points of the research and on possible solutions.
- The thesis has contributed to the development of new knowledge and ideas and to the formation of theories, models and instruments (this could also be: valid replica with expansion of existing research).
- The student has made a proposal for follow-up research based on practical and theoretical considerations.

4. Written report (20%)

Assessment (55-100):

x 2
Points

Criteria:

- A logical, consistent design and structure. A concise representation of the total research.
- Correct language use.
- Good readability, an academic style of writing (concise, according to the conventions for publications in the discipline).
- A correct presentation and lay-out of data in tables, figures etc. and correct references to literary sources, other information sources etc. (according to conventions, APA style).
- In the case of an external (design) assignment: audience-oriented justification of the design process and results for the client and other parties involved; solutions in the form of advice tailored to the client.

5. Process, functioning of the student (20%)

Assessment (55-100):

x 2
Points

Criteria:

- A high level of independence; limited need for help and supervision.
- Dedication and initiative.
- The ability to reflect and deal with feedback (learning capacity).
- The ability to deal with setbacks or a decrease in motivation; being able to find solutions for problems.
- A project-based methodical and goal-oriented method of working.
- Completion within the scheduled time.
- Good contact, coordination and communication and a pleasant and fruitful collaboration with the parties involved, such as the internal supervisor(s) and, if applicable, the external client and other external involved parties.
- If ethical values played a role when acting within the framework of the assignment (professional ethics), the student has shown to know these values and to apply them adequately.

General remarks:

Signature assessment committee:

First assessor (name): Date:
 Signature

Second assessor (name): Date:
 Signature

Assessment Presentation (6) & Total Assessment

Name student: _____ Student number: _____
 Course name and code: _____ Date: _____
 Title master thesis: _____

6. Oral Presentation and defence (10%) Assessment (55-100): Points (x1):

- Criteria
- Good argument, good argumentation and justification.
 - The presentation is concise, relevant and informative. Good distinction between major and minor issues.
 - The presentation is appealing, has an appropriate and clear structure, is understandable and comprehensibly structured.
 - Adequate use of media technology.
 - Adequate answers to critical questions about research and to theoretically-oriented questions about the subject of the thesis.
 - In the case of an external (design) assignment: a presentation about the design process and the results, tailored to the client's needs and the student's own ideas.

Eventual remarks:

Assessment overview master's thesis EST

	Points	
1-3 Content (50%)	<input style="width: 60px; height: 20px; border: 1px solid black;" type="text"/>	
4 Written report (20%)	<input style="width: 60px; height: 20px; border: 1px solid black;" type="text"/>	
5 Process & functioning (20%)	<input style="width: 60px; height: 20px; border: 1px solid black;" type="text"/>	
6 Oral Presentation & defence (10%)	<input style="width: 60px; height: 20px; border: 1px solid black;" type="text"/>	
Total points:	<input style="width: 60px; height: 20px; border: 1px solid black;" type="text"/>	/ 100 Mark
	<input style="width: 60px; height: 20px; background-color: yellow; border: 2px solid black;" type="text"/>	<input style="width: 50px; height: 20px; background-color: yellow; border: 2px dashed black;" type="text"/>
	Rounded final mark	

Signature on behalf of the assessment committee:

Assessor (name): _____ Date: _____
 Signature: _____