

# **7Z45M0 Graduation project USRE**

**Academic year 2023-2024**

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Unit Urban Systems & Real Estate  
Department of the Built Environment  
Eindhoven University of Technology

An extended version of this guide can be found on Canvas (subscribe to 7Z45M0). Students starting the USRE graduation project are strongly recommended to read the extended graduation guide and additional information on Canvas. Links to relevant sites and forms can be found on Canvas as well.

For double diploma graduation projects, check [here](#).

For the combined graduation project USRE and CME, you have to subscribe to the corresponding graduation projects: 7Z45M0 and 7CC40.

## **Graduation at Urban Systems and Real Estate**

This guide provides information regarding the USRE graduation project:

1. Registration and choice of the graduation subject
2. Preparation of the graduation plan and Intermediate Colloquium
3. Execution of the graduation plan and Final Colloquium
4. Ethics review

### **1. Registration and choice of the graduation subject**

The graduation phase starts four times a year, at the beginning of each quartile. Students must register for the **7Z45M0 Graduation project USRE** before the start of the quartile (via Osiris). To be entitled to register according to the Master Program and Examination Regulations ABP, the student's personal study plan must have been approved by the Examination Committee and the student has at least accumulated 55 ects and no more than 20 ects remain (the graduation project excluded). In addition, the graduation project marks the conclusion of the program.

After registration, students can find a list of graduation topics with accompanying supervisors on Canvas ('Graduation Topics and Supervisors'). These supervisors may act as the main supervisor during the graduation project. In addition to the list of graduation topics, supervisors may promote specific graduation projects by means of Project Descriptions on Canvas. A Project Description provides more detailed information about the background, contents, and approach of a particular graduation project. Students are free to ask supervisors for more information about a particular project or topic.

For each **first Tuesday of the quartile** a kick-off meeting will be scheduled, 12.40-13.20h. Starting graduation students will be invited to join this optional meeting. Not later than the **first Wednesday of the quartile**, students have to choose at least three graduation topics/projects with different main supervisors and upload their selection to Canvas. The order of topics/projects will be considered the order of preference. So, the first topic/project is assumed to be the most preferred and the third will be assumed the least preferred topic/project. Optionally a brief motivation can be added. Proposals with less than three different supervisors are not accepted. During the first week of the quartile, supervisors will be appointed to the students; both students and supervisors will receive an e-mail to confirm this.

### **2. Preparation of the graduation plan and Intermediate Colloquium**

#### **Supervisors**

At the beginning of the graduation project, student and main supervisor decide about a second supervisor. Before finishing the graduation plan, a third supervisor should be invited. At least one of the supervisors has to be a full or associate USRE professor (see appendix 1) who will be the chair of the supervision team. Under certain conditions, an external supervisor can be part of the supervision team.

## **Graduation Plan**

Students, meet with the (main) supervisor to discuss the subject of the project and the method of working in more detail. The student starts writing a graduation plan. A literature study is performed to get familiar with the state-of-the-art regarding the graduation subject. The graduation plan contains amongst others an introduction to the problem, the research questions, the academic and societal/managerial relevance, literature review, a draft research design/approach (methodology), and a time plan.

The graduation plan must be written according to academic standards. Use of company logos is not allowed. Note that a substantial part of the graduation plan may constitute a main part of the first chapters (Introduction, Literature, Methodology) of the final report.

The assessment of the final project is based on three main criteria: the quality of the research (product), the process and the presentation (final colloquium and report). These criteria are weighted equally unless otherwise stated in the graduation plan.

## **Intermediate Colloquium**

The student discusses the draft graduation plan with the entire supervisory team and refines the plan in order to get approval from the supervisors. The graduation plan must meet academic standards, to be judged by the team of supervisors. When all supervisors agree, the draft graduation plan becomes final, and the student uploads the plan to Canvas.

The student presents the graduation plan at the intermediate colloquium in 10-15 minutes (incl. discussion). The presentation may give rise to a discussion and suggestions for improvements.

Graduation plans will be presented at the USRE-seminar which are usually scheduled each third Thursday of the month. Students have to contact the USRE secretary, Mariëlle Kruizinga ([m.kruizinga@tue.nl](mailto:m.kruizinga@tue.nl)) to plan the intermediate colloquium. Mariëlle needs the following information: your name, the names of your supervisors, the title of your presentation, the preferred date.

## **3. Execution of the graduation plan**

The student carries out the graduation plan under supervision of the supervisory team. The organization of the supervision (role of supervisors, frequency of meetings, et cetera) has to be agreed upon by the supervisors. However, all supervisors are expected to attend the final colloquium and to contribute to the assessment of the project.

Once the student has completed a draft version of the final report, the team of supervisors has to decide whether the student will be able to complete the graduation project within a few weeks (this is called the 'green light meeting'). If yes, the student may plan the final colloquium and complete the report, taking into consideration the final directions from the supervisors. In addition (if the student completed all other elements of the personal study program), the student applies for the Final Exam in Osiris for the upcoming examination session; see the education guide (or Canvas).

## **Final Report**

The final report has to be completed before the final colloquium. In general, the final report contains the following chapters: Introduction, Literature Review, Methodology/Approach, Results/Findings, Conclusions and Recommendations. A summary ( $\pm$  2A4) and references

(according to the APA style) should be added as well. Note that the thesis may not contain a company logo.

Prior to the final colloquium, submit your final report (pdf) to Canvas. Your thesis will be checked by a plagiarism detector. In addition, hand over a digital and/or printed version of the thesis to each supervisor. The chair of the team of supervisors has to send a signed digital version of the thesis to the examination committee. The student has to sign the Declaration TU/e Code of Scientific Conduct and upload it to Canvas before giving the final presentation.

### **Final Colloquium**

The final colloquium concludes the graduation project. The student has to plan the final colloquium, taking into consideration that all supervisors should attend this event. The presentation room (preferably in or near Vertigo) and equipment is arranged by the student. The secretary must be informed about the colloquium, she will inform the study association *SERVICE* as well. The student presents publicly the graduation research in not more than 25 minutes. Afterwards, there is time for questions. Finally, the team of supervisors assesses the graduation project, and the final grade will be announced.

### **Assessment**

Immediately after the final colloquium the graduation project is assessed by the supervisory team. The aspects to be assessed are: the quality of the research (product), the process and the presentation (final colloquium and report); for more details see the assessment form. The final grade is the (weighted) average of these three aspects. The chair of the supervisory team fills out the form and will send it to the Examination Committee. Note that the chairperson has to send the Declaration TU/e Code of Scientific Conduct MSc thesis to the examination committee as well.

## **4. Ethics review**

All proposals for TU/e research with human participants or recognizable data of individuals will have to be ethically reviewed. The TU/e has appointed the Ethical Review Board (ERB) for this purpose. A portal is available on the intranet [intranet.tue.nl/ethics](https://intranet.tue.nl/ethics) for all information regarding the procedure and relevant forms.

Everybody must, before the start of a data collection that involves human participants, fill out the online form on the intranet, where the research is submitted for ethical review.

**Approval of the ethical board is required before the data collection can start.**

## **Appendix 1. USRE Staff**

### **Full professors**

Theo Arentze  
Soora Rasouli  
Bauke de Vries

### **Associate professors**

Rianne Appel – Meulenbroek  
Aloys Borgers  
Qi Han  
Astrid Kemperman  
Pieter Pauwels

### **Assistant professors/Lecturers**

Valeria Caiati  
Gamze Dane  
Mayke van Dinter  
Robert van Dongen  
Marieke Leussink  
Feixiong Liao  
Stefan Maussen  
Ioulia Ossokina  
Ekaterina Petrova  
Peter van der Waerden  
Melvin Wong  
Dajuan Yang