

# Master Dissertation Guidelines

Academic Year 2017 - 2018

The document entitled 'Master Dissertation Guidelines' describes the scope of the Master Dissertation in an academic context. It gives useful information, advice and tips for the completing of this graduation project.

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# 1. Viewpoint

## *The Master Dissertation*

The Master Dissertation is the final stage of a degree program but can also be viewed as the start of a professional and/or academic career. With the completing of the Master Dissertation, you demonstrate to be able to explore complex problems in depth, to acquire knowledge and insight thereto and to respond in a critical and original scientific/artistic manner. Critical reflection is with this of great importance. You also demonstrate that you can systematically report both the process as well as the outcome and can communicate with colleagues and laypersons in English.

## *The architecture*

You formulate a project which is elaborated on a rigorous design and research-based manner. You adopt with this a critical stance within the own discipline and the related practice and situate your work in the current international discourse of the field of specialization. In view of the implicit character of the discipline, the Master Dissertation is or can be transdisciplinary. Cross-links between theory and design in the different facets are important. Research-based substantiation is essential even though research is seen as a parallel process to the design, not a merely initial phase. This substantiating demonstrates that the design decisions were not taken arbitrarily but are incorporated in a broader study of the different facets of the research/design question and the discipline. You research your proposition through means of the design and select resources with which the design task is elaborated.

A critical design reflection is built up, parallel to the development of the project. It is required to be able to deal with complex problems within a contemporary changing sociocultural context. This academic reflection about the design is tested and based upon a study of a series of reference projects, a review or interpretation of existing conceptual or theoretical discourses and includes a coherent description of the design method(s), leading all to a framework for the proposed project.

## *The preparation*

The Master Dissertation forms part of the program that spans the entire Master of Architecture Program. The development of the project will in time be limited to two semesters but is anchored within the followed personal program of the student during the previous semesters. In a suchlike personal program, design-based and theoretical facets converge trans-disciplinarity. The student is given the time and the possibility to formulate and elaborate a strong concept and a personal view. The Master candidates can consult specialists who assist them in order to attain the requisite conceptual foundations and scientific profundity. The assisting and evaluating team of the Master Dissertation Project is of an trans-disciplinary and international composition.

During the course of study, you are prepared for the Master Dissertation both substantively as well as methodologically. The Master Dissertation assignments are tasked and elaborated from the main angle of approach defined by the curriculum frameworks (Architecture: Resilient and Sustainable Strategies in Ghent and Architecture: Urban Projects, Urban Cultures in Brussels) and are developed in interaction with research and design groups. The Master Dissertation contributes to the knowledge domain of architecture and urban design, specifically tinted through an individual formulated project. The exact interaction between the theoretical framework and the design is indicated on the assignment sheet and studio briefs, provided as an academic framework to you by your promotor. The Master Dissertation results in a design project.

### *The tutoring*

During the course of your study program, your development will be intensively supervised and educationally organized. Through this you will ultimately act with a greater autonomy and coherence. You will have, in principle, all lecturers at their disposal to gain information and enter into discussion and it lies with the student to organize the necessary appointments.

The academic promotors will provide individual angles of approach, for possible adjustment, reflection, testing, a sounding board etc. These are all possible contributions to the concretizing of the own design thesis and the elaboration thereof.

There are various actors involved with the Master Dissertation:

- Academic Promotor.
- Design Studio coordinator (OPO-C)
- Consultants in Building Technology
- Additional researchers, practitioners, lecturers and external personnel who are occasionally addressed.

To develop the Master Dissertation, you are offered various possibilities within a pool of academic promotors, being researchers and practitioners that each guide a rather limited group of students (5 to 10) during the whole process. At the end of the semester before enrolling in the master dissertation studio, each academic promotor presents a research and design framework: a theme and a site (or broader area), related to their research or practice expertise, for you to choose 2 (equally important) possible academic promotors for the Master Dissertation with a written brief motivation (1 A4 of motivation, 1 A4 with CV, 5 A4 portfolio). The following days, you will be each assigned an academic promotor, based on the portfolio, the motivation and CV. The final decision of assigning the academic promotors is the responsibility of the Program Director and the studio coordinator, after consulting students and the pool of academic promotors. The assignation is subject to availability and capacity of the academic promotor.

During the **fall semester** (semester 3: 5 ECTS credits), the initial research of the Master Dissertation will happen: this semester, the students (with supervision of the academic promotor) will conduct the initial research of the master dissertation:

- literature study
- relevant case studies
- on site research and data mining (week 7 of semester 3)
- develop the conceptual framework of the master dissertation
- mapping of spatial qualities of site and broader context
- initial lay out of programme and general approach

The chosen theme and site for developing the Master Dissertation allows a profound and critical analysis to prepare for the final and essential part of this project. In week 7 of semester 3, the on site research week will take place, during which the students do specific research about the site and chosen topics. Students abroad (exchange programs) can do this research from abroad as they will work on a site in the city where they spend the abroad program, but within the conceptual, theoretical, methodological framework one of the academic promotors provides.

The workload of this semester is defined by a one week in situ research (5 days) and a few additional half-day working sessions at the end of this semester, with supervision of the academic promotor.

During the **spring semester** (semester 4: 25 ECTS credits), the students are part of the Master Dissertation Design Studio (MAIb42 and MAIg42) that has a one day/week rhythm during 17 weeks where all students and academic promotors meet. At the beginning of this semester, the student is required to publicly present the results and outcomes of the first phase (fall semester).

As part of this studio, individual discussions and reviews will complement student peer reviews of the projects. Within this design studio, theoretical inputs will be given by each academic promotor, some of them shared by the whole group of students. It is mandatory for all students to be present during the full session and actively interact with other students and academic promotors.

The studio coordinator (OPO-coordinator) will guard coherence in contents and calendar for the different students groups within the studio pool, to assure equal quality of the presented Master Dissertations.

### **Milestones:**

sem 2, week 14+: presentation of the themes, methods and sites by academic promotors, assigning academic promotor (for students abroad, this happens before departure)

sem 3, week 7: in situ research week

sem 3, weeks 10, 11, 12 and 13: working sessions (half day a week)

sem 4, week 1: initial presentation by students of first result (ppt and poster format, jury=academic promotors)

sem 4, week 6,7: midterm presentations (ppt and poster format, jury=academic promotors)

sem 4, week 12: delivery final draft reflection paper (paper format)

sem 4, week 14: internal jury (ppt format, jury=academic promotors)

sem 4, week 17: final delivery and external jury

### *The final result*

The Master Dissertation forms a coherent whole, in which all the data which are essential for the project, are garnered. The project itself is underpinned by design research and/or theoretical research and references, with mention of the consulted sources.

The design and the reflection paper form a substantive whole.

The Master Dissertation consists of:

#### **-An Architectural Project:**

You formulate an individual design project on the assigned theme, coherently relating to the conducted research about the site and theme that is provided by the academic promotor. Depending on the specificity of the course and the program, a highly specific form of reporting can be required. Specific parts can be effectuated as group work, even though the evaluation will be always individual. You will be given strict guidelines by the academic promotor related to the material to be presented.

#### **-A Reflection Paper:**

The actual design or project which is broadly and graphically proposed, is supplemented with a Reflection Paper in which the conceptual perspective is elucidated and a critical approach is given of the assignment and design project. In a Reflection Paper there is an explanation given regarding the assignment and the scope wherein one has worked: it will prove that the project fits within the general Master Program theme: Architecture: Resilient and Sustainable Strategies (campus Ghent) or Architecture: Urban Projects, Urban Cultures (campus Brussels). The Reflection Paper is developed from an interaction between image and text and refers to the framework used to develop the project and includes a critical reflection on the theme, design method and final architectural result. The Reflection Paper is an essential part of the project and refers to the research methodology, the used strategies, the critical reflection, together with a description of the conceptual and theoretical framework.

-You explicate your view and standpoint with respect to the assignment such both theoretically as well design-based as well as on a technical level. Which objectives are given primary emphasis? What are the observed basic concepts? Also a clear delineated design and research question is addressed. Here there is referred to the study material and the basic information concerning the handled problems and themes. There is further a description of the final insights and the result. In this text there is also clarified the position you take such with respect to the own discipline and practice. (How do you position your design/research within the discipline and

theoretical discourse?) It will be evident that this viewpoint text is a combination of image and word as one coherent whole. One can view this as if it were an extensive article from an international professional journal.

-The process is also illustrated in this document (it will include a process bundle (“logboek”). This Reflection Paper which illustrates the evolution of the draft and describes the result. Attention is paid to the methodological aspects of the Master Dissertation. The research and design process is elucidated. Which different strategies were developed? Which choices were made? Which analyses were effectuated in substantiation of the proposed design? What were the tilting moments or breakthroughs during the process? Which concepts were tested and why were certain concepts finally selected. It will be obvious that attention will be paid to the interaction between the theoretical component and the design thesis. The parts of the logbook, or the blog that is used, will perhaps be included.

### Evaluation

The Master Dissertation has a weighting of **25+5 study credits**. All work is individually elaborated, presented and assessed. Dependent on the assignment and the effect of the program, group work can be an added value in a preparatory phase. You are assessed individually both for the process as well as the final result.

**40% of the study credits** will be assessed by an **external final jury of researchers or professionals** that will be selected taking into account their expertise related to the theme and site of the different project. This independent jury assesses the **final result** of the Master Dissertation. (see the assigned learning outcomes following in this document) The jury members are informed in advance, either orally or in writing, as to the content of the theoretical framework, theme and site. As well, they will receive information about the assessment criteria and general requirements. The jury members will not receive the projects in advance.

The jury is comprised of not less than 4 members who have no ties with the department. The members of the final jury are held to loyally observe the prescribed exit qualifications of the Master Dissertation as the point of departure for assessment and quotas. Each jury will be assisted by a lecturer from the own staff. This lecturer represents the institute, takes note of the equivalent quota whilst taking into account all the assessment criteria and the fairness of the process. This lecturer is briefed a couple of weeks in advance and makes sure the assessment is coherent. He/she takes a neutral and objective stance and does not actively participate in the substantive discussion, but only, where necessary, in the formal discussion. This representative has participated in the Master Dissertation pre-jury of the students who are required to present their work before this jury. The global equivalence over the juries is verified by the program director who may also be assisted in this.

**60% of the study credits** will be assessed by the **academic promotor** (after consulting with the design studio coordinator) during the course of the process.

This assessment refers to **the whole research and design process, the positive progress of the project, the interaction and coherence with the theoretical framework, the final architectural project, together with the Reflection Paper**. A formal initial and midterm review (internal or external) is organized to orient you in the further development of the Master Dissertation.

During the whole process, attention is given to the Reflection Paper and its relation to the project.

There are 30 minutes provided for each student for the public defense of the Master Dissertation. You have 15 minutes to hold your presentation. The rest of the time is for the jury to ask questions or give comments.

At the jury you will focus on the assignment, the research question, the project and the interaction with the theoretical component. You illustrate the various aspects (view, strategy, methodology, partial results, result etc.) which you have set out in your viewpoint text, and the elaborated design.

In view of the complex organization, the timing as given is required to be strictly adhered to.

By the presentation to the jury, it is expected you can orally explicate and defend the Master Dissertation on the basis of the relevant graphical, spatial and written documents.

You use a series of project posters to explain and defend the project, next to a digital slide presentation. The use of a slide presentation is complementary to the other required documents, and is only a visual carrier by the oral explanation. It is therefore obvious to use clear and strong images, conceptual diagrams, atmospheric images and illustrations which support your explanation and not with extensive texts and legends.

The posters used for the jury defense will be used to set up a simultaneous exhibition of all projects, for the jury members to allow to compare and evaluate the projects better, as well of different programs or design studio tracks.

The Reflection Paper (that includes the process bundle or “logboek”) is required to be submitted to the jury members for inspection, such in function of, amongst other things, the subsequent discussion. The members of the jury do not receive this document beforehand (it is evaluated mainly by the academic promotors during the whole process), which demands a coherent referring to its contents in the presentation.

During the presentation of the jury, academic promotors are kindly invited to be present, even though they can not participate in the discussion or evaluation (before, during or after the defense). Neither are they allowed to introduce or defend an individual student.

At the end of the jury session, the jury members will give a group feedback to all students, individually or in general, about the quality of the projects and presentations and share some comparative reflections or guidelines for future careers to the students. This happens after handing in the final evaluation to the Program Director.

### Competences and learning outcomes

The competences indicated in **bold** will be the focus of assessment by the external jury (the whole list of competences will be assessed by the academic promotor).

#### *Campus Brussels: Architecture: Urban Projects, Urban Cultures Program*

*In the field of Architecture and Urban Design, a global awareness is growing, questioning established development and settlement patterns regarding future societal needs and ensuing planning strategies and architectural interventions. The current fast-forward global development increasingly strains the Western and European model, inducing a whole range of urban planning and architectural challenges to update the academic and professional practice.*

*Facing the consequences of a changing society and a post-industrial and knowledge-based economy, Western developments stand in stark contrast with rapidly developing economies and a still expanding population worldwide. Instigating important and uncharted societal shifts, our conception of urbanity and the city is fundamentally affected. Traditional urban planning methods and architectural strategies might not offer the necessary tools to recognize and address these future challenges and therefore need to be reconsidered.*

*Within these changing context and transition processes, the Urban Projects, Urban Cultures Program seeks to research, develop and teach alternative architectural and urban design tools, not so much aimed at reinventing urban landscapes, but as it were to edit the given condition from within.*

*A critical and coherent attitude towards recent urban phenomena is considered the base for research and design at different levels.*

#### **Course specific competences Master Dissertation:**

- 4A1 The student is able to act methodologically throughout the designing process in an independent way.
- **3A1 The student is able to develop a critical argumentation on the position of his/her design project within the international architectural debate.**
- 4A3 The student is able to establish his/her own research or project strategy.
- **5C1 The student is able to develop a relevant design, based on an complex cultural / societal context analysis.**
- **3C1 The student is able to critically frame and place a complex architectural design.**
- **3C2 The student is able to reflect on contemporary and innovative architectural-theoretical perspectives.**
- **5A2 The student is able to develop a research based design project.**
- **5A1 The student is able to develop a relevant design project out of various spatial scale levels and the dimension of time.**
- 7.4 The student is able to develop his/her own research or project strategy.

#### **Contribution to the generic competences Master Dissertation:**

The student is able to assimilate and integrate in critical way information through research and study in a way to act in a methodological, explorative and creative way in his architectural design in the urban architectural design studio.

The student can interpret his personal frame of references in relation to architecture through the specific field of urban architectural design and specifically in the field of cities in transition. He/she is able to describe, to evaluate and to apply key concepts on this field.

### *Campus Ghent: Architecture: Resilient and Sustainable Strategies*

*The Brundtland report (United Nations, 1987) defines sustainable development as 'development which meets the needs of the present without compromising the ability of future generations to meet their own needs'. The United Nations in 2005 referred to the 'interdependent and mutually reinforcing pillars' of sustainable development as economic development, social development and environmental protection.*

*Translating these three pillars for sustainable architecture, they would entail: providing access to high quality and healthy living and working environments for all, finding ways to create socially sustainable environments at different scales and a wise use of natural resources. Technical considerations, together with more conceptual or strategic issues, are dealt with in this two-year program about architecture and sustainability.*

*Based on a highly interdisciplinary learning process of integrated research, students are expected to elaborate a theoretical stance on current issues with particular emphasis on how aspects of sustainability, universal design, urban ecology and energy-efficient technologies may contribute to the development of more sustainable architecture for human settlements. Critical reflection about architecture and its social, cultural and environmental role for society is central to the program.*

#### **Course specific competences Master Dissertation:**

- 4A1 The student is able to act methodologically throughout the designing process in an independent way.
- **3A1 The student is able to develop a critical argumentation on the position of his/her design project within the international architectural debate.**
- 4A3 The student is able to establish his/her own research or project strategy.
- **3C1 The student is able to critically frame and place a complex architectural design.**
- **3C2 The student is able to reflect on contemporary and innovative architectural-theoretical perspectives**
- **5A2 The student is able to develop a research based design project.**
- 7.4 The student is able to develop his/her own research or project strategy.
- 4B2 The student is able to develop a relevant design, taking into account quality of comfort and sustainability.

#### **Contribution to generic competences Master Dissertation Project:**

The student is able to critically assimilate and integrate information through research and study in order to proceed methodically, exploratively and creatively in his/her architectural design.

The student can reinterpret his/her personal frame of references in relation to architecture and specifically in the field of sustainability. He/she is able to develop an architecture project in which he/she integrates the different aspects of sustainable development.

#### **Exhibition / further dissemination**

It is the intention that a selection of the works is presented at the exhibition(s) or shown in blogs or web sites. The lecturers or academic promoters make a selection of the projects. The students give permission to the Faculty of Architecture to reproduce the contents of the projects, of which the Faculty has full copyright.

We encourage both tutors and students to think together about further dissemination of the output of the Master Dissertation.

## 2. Practical

### *Formal requirements*

The Master Dissertation Project is a coherent whole and consists of:

- **An Architectural Project:** the **Design**, that the studio teachers, teachers of theoretical components or academic promoters will specify in advance.
- the **Reflection Paper**, including the process of the project (“logboek”)

The following elements are however required to be specified in the Reflection Paper:

### *Title page*

- o Project title (with mention of ‘Master Dissertation Project’)
- o Name of the student
- o Name of the academic promotor
- o Academic year and date of publication
- o Name of the study program:  
‘International Master of Science in Architecture’ and Campus: Brussels or Ghent
- o Name and logo of the Faculty and University and of the  
International Master of Science in Architecture (as specified below)

We refer to the faculty and her campuses as:

KU Leuven, Faculty of Architecture, Campus Sint-Lucas Ghent, or  
KU Leuven, Faculty of Architecture, Campus Sint-Lucas Brussels

You use the standard logo of the KU Leuven, **without** the indication of LUCA

On each other page: page number, name of the student and of the project (for identification purposes when copying)

### *Foreword*

Possibly supplemented with a personal angle of approach, such as a word of thanks

### *Table of contents*

The table of contents gives the general structure of the document

### *Citations and bibliography*

A correct citation of texts and images is of great importance. It concerns both the intellectual honesty (respect for the intellectual property of others), as well as an indication of the efforts which solaced the author to document his/her argumentation/design. Finally, the citing of a source gives the reader numerous reference points to consult other literature. The KU Leuven (University of Leuven) attaches a high priority to combating plagiarism.

A Master Dissertation at an academic level is required to be underpinned with the study of (professional) literature and other information sources. An accurate reference to these sources (text, design, book, magazine, website, blog etc.) forms an important part of the professional approach. The sources are at all times required to be stated in the bibliography (usually at the end of the bundle). The entries are required to contain all relevant information so that this can be re-consulted.

- **Summary:** This A3 document can be given to the jury as a folder and serve as a visual memory of your project. It might also be used as a summary for a publication. See it as a short press-release of your Master Dissertation.

Handing in/sizes:

**The Architectural Project:** The academic promotor will specify the needed formats and contents of the documents to present the Master Dissertation. You hand in all the documents for the jury on the day before this jury and prepare them according to the made agreements. In the case of printed documents, one copy can be used for the internal and external presentation.

**Reflection Paper:** 3 hard copies on the day of the delivery of the Master Dissertation, a template will be used - the format should be 20x25cm.

**Summary:** The essence of the project is presented on one A3 page – if necessary front and back (landscape orientation, in printed and pdf format).

**For the archive:** the entire project has to be handed in digitally. Every student puts all the final files on one dvd that will be handed in in two copies. This dvd contains the entire project (Project, Reflection Paper (one pdf-file of max. 100MB and the Summary, all in a printable pdf formats). Also, all students are required to copy the complete project on a hard disk the Faculty provides to the group.

If requested, you will be required to submit extra hard copy documents for the exhibition.

### Important dates

**Timing Master Dissertation Project INT MA AR**  
**studio hours Ghent: Wednesday 9h-13h & 14h-18h30**  
**studio hours Brussels: Tuesday 9h-13h & 14h-18h30**

semester 2, Week 14+: announcement of frameworks by academic promotors

semester 3, Week 7: **in situ research week**

semester 3, Weeks 10, 11, 12 and 14: research and design sessions (half day a week)

semester 4, Week 1: **presentations by each student of initial outcomes:** results relevant case studies, literature review, data mining, context analysis, concept and thematical approach and first proposal for architectural intervention

semester 4, Week 2: urban strategy and linked architectural intervention

semester 4, Week 3: urban strategy and linked architectural intervention

semester 4, Week 4: urban strategy and linked architectural intervention

semester 4, Week 5: development of architectural intervention

semester 4, Week 6: **midterm presentation (internal jury)**

semester 4, Week 7: working session (no theoretical courses or electives that week)

semester 4, Week 8: development of architectural intervention

semester 4, Week 9: development of architectural intervention

semester 4, Week 10: development of architectural intervention

semester 4, Week 11: development of architectural intervention

semester 4, Week 12: **delivery draft reflection paper**

semester 4, Week 13: architectural intervention and review urban strategy

semester 4, Week 14: **pre-jury** (intern)

semester 4, Week 15: final development of architectural intervention

semester 4, Week 16: final development of architectural intervention, presentation

semester 4, Week 17: **final jury** (extern)

(to be detailed during semester)

