Thesis rules and guidelines
|KUL Master Nanoscience and Nanotechnology

This document describes the rules for master thesis assignment and evaluation, as well as the guidelines for the master thesis within the KUL Master Nanoscience and Nanotechnology. It is an addition to the KUL Examination rules related to the Master thesis (Art. 63 of the KUL Special Examination rules) and to Master thesis rules of the Faculty of Engineering (see also the following websites:
http://eng.kuleuven.be/onderwijs/studenten/masterproef/index.html (Dutch master)
http://eng.kuleuven.be/english/education/Masterpaper/index.html) (English master)

1. Proposals for thesis topics

1.1 During the second semester of the first master year thesis topics are proposed to the students. Every thesis proposal should describe the title of the thesis, a short description, one or more promoters, and a daily supervisor. The thesis topics are announced to the students via the website or via Toledo.

1.2 Students from the graduating option Engineering select a thesis topic that is proposed by a promoter from the Faculty of Engineering Science. Students from the graduating option Natural Sciences select a thesis topic that is proposed by a promoter from the Faculty of Science. Students from the graduating option Bio-engineering select a thesis topic that is proposed by a promoter from the Faculty of Bio-engineering Science.

1.3 Students can select a thesis that is proposed by a promoter which does not belong to the chosen graduation option if the topic is also supported by a co-promoter from the Faculty of the student’s graduation option or if the POC agrees with the selected topic.

1.4 In principle only lecturers that are teaching a course from the Master program can act as promoter. Besides this also ZAP-members who are not a lecturer of the program can act as promoter after explicit approval by the POC.

1.5 Students can ask for more information on the topic with the respective promoters. They make their selection before the start of the June examination session, and inform both the promoter as well as the program director of their choice. In case one topic is selected by more then 1 student, the program director is assigning the topic, after hearing the students about their second choice topic.

1.6 Industry can also propose topics, provided that they find a K.U. Leuven promoter and that the POC agrees with the proposed topic.

1.7 Students can propose a topic themselves. In that case, they contact a promoter according to the rules of articles 1.2 and 1.3 and define the topic with this promoter. This submission is further treated as a regular thesis proposal.

1.8 The list of selected topics and promoters is submitted for approval to the POC who makes the final decisions.

2. Contents

2.1 The thesis has a value of 30 credits, i.e. 25% of the credits of the Master, which corresponds to a workload of maximum 900 hours, including study, experimental, writing, preparation of presentations, etc.

2.2 The thesis work and defense correspond to work of 1 semester but can be carried out throughout the year, starting at the deliberation date of the first Master year.

2.3 The master thesis should report on independent and original research work of the student.

3. Reporting

3.1 The reporting consists of 4 parts:
1. a mid-term presentation
2. a final thesis report
3. a publishable summary
4. a final thesis defense

3.2 The mid-term presentation is intended to give feedback to the work. It should be attended at least by the daily supervisor and the promoter, and the assessors are invited as well. It should explain the purpose of the research, the approach and the status of the results. The mid-term presentation should take place in the first few weeks of the second semester.

3.3 The final thesis report has to contain the following parts (see also guidelines of the Faculty at websites above):
* Objectives of the thesis, problem statement
* State of the art with proper references.
* Description of experiments, work done, findings, discussion, etc… (articulated in chapters)
* Conclusions and suggestions for future work.

The language of the thesis is that of the course program (English for Erasmus Mundus and the K.U. Leuven Master Nanoscience and Nanotechnology, Dutch for the Master Nanowetenschappen en nanotechnologie). For the Dutch program the students can also write the thesis in English, but in that case a Dutch summary should be added as an integral part of the thesis.

3.4 The structure, content and format of the report is according to the faculty rules, given on the websites above.

3.5 The publishable summary has to be written in the format of a 2 to 3 pages paper or letter. This is not intended to be a summary of all findings, but only of the most important or useful research results. This paper has to be written as a scientific publication, with sections “abstract”, “introduction”, “experimental” (eventually “discussion”) and “conclusions”. The language is English. The title can be chosen by the student and can be different from the title of the thesis.

3.6 The publishable summary and the final report are handed over to the evaluation committee members at least 2 weeks before the final defense.

3.7 The final defense is in the form of an oral presentation. In principle, this presentation is done during the examination period in a public session where all students of the Master are defending their thesis. The language is that of the course program (English for Erasmus Mundus and the K.U. Leuven Master Nanoscience and Nanotechnology, Dutch for the Master Nanowetenschappen en nanotechnologie). For the Dutch program the students can also defend the thesis in English.

All examination committee members from all students as well as all lecturers from the program are invited.

4. Evaluation committee

4.1 Every thesis is evaluated by an evaluation commission which is composed as follows:
   a) promoter(s)
   b) daily supervisor
   c) 2 assessors of which at least 1 from outside the research group where the thesis takes place.

4.2 Assessors can be ZAP-members or AAP/BAP members with at least 2 years of research experience, linked to the research Group of a lecturer of the KUL Master.

4.3 The members of the evaluation commission can be proposed by the promoter(s) of the thesis or by the POC, and are formally approved by the POC.

4.4 Every member of the evaluation commission gives a score on a total of 20 and some justifying comments, using the Master thesis evaluation form in appendix, and submits it to the Program Director. The meaning of the scores is as follows:
   o below 10/20: unacceptable
   o 10/20: minimally acceptable
   o 12/20: acceptable result
   o 14/20: good result
   o 16/20: excellent result
   o 18/20: outstanding result

4.5 The program director makes a weighted average of the scores received, according to the following weighting coefficients:
   Promoter(s): 25%
   Daily supervisor: 25%
   KUL Assessor 1: 25%
   KUL Assessor 2: 25%

In case the promoter is acting as the daily supervisor the weight of the promoter will be 40%, and the weight of the assessors is equally divided over the remaining 60% (40-30-30)

4.6 Additional assessors can be allowed, e.g. from the location where the thesis was made (in case it was not or not completely made at the university). Their score is included in the total score of the assessors.

4.7 The score of an assessor who does not attend the final defense is not taken into account in the final score, unless he/she has examined the student on his thesis in a separate session. This rules does not apply to the external assessor for the Erasmus Mundus students.

5. Evaluation criteria

5.1 The thesis is evaluated based on 3 criteria: quality of the work, quality of the written reporting (thesis text and publishable summary), quality of the final presentation.

5.2 The members of the Evaluation Committee fill in a preformatted document (appendix 2) for rating the thesis based on the criteria mentioned in article 5.1. The filled-out forms are handed over to the program director at the final defense.

5.3 The presence of the promoter and the assessors is required at the final defense. The presence of the external assessor for EMM is not required at the final defense, if this assessor has submitted a written report on the thesis including a proposed rating.

Appendix 1: Template cover page
Appendix 2: Master thesis evaluation form
Master Nanoscience and Nanotechnology

Master thesis evaluation form

Title of the thesis: will be filled out by the secretariat beforehand.
Name of the student: will be filled out by the secretariat beforehand.
Evaluation by: the member of the jury will fill out his/her name here.

Criteria for the evaluation

1. Content of the thesis
   - performed work (effort, person.hours)
   - originality and creativity of the general approach
   - critical sense regarding the advises of the promoter and the daily supervisor
   - achieved results
   - solving of problems in an independent manner (software, hardware, design ...).
   - results versus objectives, in the sense of how good it has been demonstrated that certain objectives could not be reached.

2. Written reporting
   - clarity of the structure
   - depth of the content
   - clear and concise writing style
   - correct language and spelling
   - quality of lay-out and figures
   - quality of the publishable summary

3. The oral presentation
   - conciseness and clarity of the presentation
   - correct language
   - quality of the slides
   - answering of the questions
   - use of time

Combination of the separate evaluations (give a score on a total of 20)

Your evaluation .........../20

Comments/motivation: