

Master's Dissertation (1001508)

Course size *(nominal values; actual values may depend on programme)*

Credits 30.0 **Study time 900 h**

Course offerings and teaching methods in academic year 2024-2025

A (Year)	English	Gent	master's dissertation
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Lecturers in academic year 2024-2025

De Schamphelaere, Karel	LA22	lecturer-in-charge
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Offered in the following programmes in 2024-2025

Master of Science in Environmental Science and Technology	crdts	offering
	30	A

Teaching languages

English

Keywords

Scientific research, research techniques, scientific reporting, written manuscript, oral presentation

Position of the course

The master dissertation is an integration course that forms the final part of the master's program in which the scientific final competences are applied to the programme-specific knowledge competences. Students can choose the topic for their master' dissertation (thesis) in a broad range of disciplines in which the scientific staff of the master programs is active. In general, the students become involved in ongoing research within the research laboratories of their promoter(s). They can however also propose their own research topic. Students have to conduct research with the appropriate expertise in order to contribute to the development of a particular research domain. The ultimate goal is to initiate students into research at an academic level so that, upon completion of their master program, they are able to carry out scientific research in a proper way.

Contents

All information regarding the content and implementation of the master's dissertation and the rights and obligations of all those involved can be found on the portal (regulations, timetables,...): <https://www.ugent.be/bw/en/for-students/curriculum/master-dissertation/masterdissertation.htm>

A master's dissertation is the result of an extensive literature study based on scientific sources and independently conducted research. This research can be carried out in in-house laboratories or in collaboration with industry or in a scientific institution. The literature review and research deepen a domain-specific problem, map it and propose (partial) solutions. The results of the literature review and the independent research are written down in a thesis. This thesis consists at least of table of contents, abstract, introduction, literature review, materials and methods, results and a critical discussion of the results obtained. If possible, the conclusions should be based on statistical analysis. The bibliography shall refer to the international literature in the covered specific research area. The thesis and in particular the obtained results of the research are presented and defended orally before a jury.

Initial competences

A thorough scientific basic knowledge and knowledge of research techniques in the field of the master program.

Final competences

- 1 Establish a well-defined research problem
- 2 Formulate clear research questions and/or hypotheses
- 3 Establish a suitable methodology in accordance with the prevailing scientific standards of the research field
- 4 Systematically collect, search, critically interpret and integrate scientific literature
- 5 Collect data in an accurate way (existing and/or obtained through personal laboratory and/or fieldwork and/or surveys)
- 6 Process data in a correct way
- 7 Analyze data critically in a scientific context
- 8 Adjust independently the research process based on feedback from experts and critical self-assessment
- 9 Summarize and present data in a concise manner
- 10 Write a report on scientific and technical information, materials and methods, results and findings, critical interpretation and decision-making
- 11 Handle a problem critically, creatively, quantitatively with attention for ethical, social, international and sustainability aspects
- 12 Act according to the principles and good practices of scientific integrity
- 13 Show independence, motivation, commitment, a drive for innovativeness and creativity, initiative and perseverance to achieve learning outcomes 1 to 12
- 14 Present, defend and frame the research results vis-à-vis peers and experts

Conditions for credit contract

This course unit cannot be taken via a credit contract

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Master's dissertation

Study material

Type: Other

Name: Master's dissertation

Indicative price: Free or paid by faculty

Optional: no

Additional information: Costs depend on the supervisor and project, and sometimes students have to contribute themselves, for example, for travel expenses (both domestically and internationally).

References

Practical Research: Planning and Design by Paul D. Leedy & Jeanne Ellis Ormrod, 2009, Prentice Hall. ISBN 9780137152421

Course content-related study coaching

The master' dissertation is actively coached by the promoter(s) and tutor(s) during counseling meetings, during which the work as well as the ongoing learning process involved are reviewed.

Information is to be found on the portal: <https://www.ugent.be/bw/en/for-students/curriculum/master-dissertation/guidance-dissertation>

Assessment moments

end-of-term and continuous assessment

Examination methods in case of periodic assessment during the first examination period

Oral assessment, Assignment

Examination methods in case of periodic assessment during the second examination period

Oral assessment, Assignment

Examination methods in case of permanent assessment

Participation

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Extra information on the examination methods

See <https://www.ugent.be/bw/en/for-students/curriculum/master->

Calculation of the examination mark

30 % of the evaluation for the process: scientific approach, technical elaboration, commitment, problem approach, adjustment of the research process

40 % of the evaluation for the Master's dissertation report: scientific quality, technical quality, design, structure, use of language

30 % of the evaluation for the oral defence assessment: presentation (content, structure and design) (10 %) and the answers to the questions (20 %)

Note: following deliberation the jury can defer from the calculated score. This will always be motivated.

Students who eschew periodic and/or permanent evaluations may be failed by the examiner.