

**Course size** (nominal values; actual values may depend on programme)  
**Credits** 30.0      **Study time** 900 h      **Contact hrs** 75.0 h

**Course offerings and teaching methods in academic year 2017-2018**

C (year)	master's dissertation	75.0 h
B (semester 2)	master's dissertation	75.0 h
A (year)	master's dissertation	75.0 h

**Lecturers in academic year 2017-2018**

Offered in the following programmes in 2017-2018	crdts	offering
<a href="#">International Master of Science in Biomedical Engineering</a>	30	B
<a href="#">International Master of Science in Fire Safety Engineering</a>	30	B
<a href="#">European Master of Science in Nuclear Fusion and Engineering Physics</a>	30	A
<a href="#">European Master of Science in Nuclear Fusion and Engineering Physics</a>	30	A
<a href="#">Master of Science in Textile Engineering</a>	30	A

**Teaching languages**

Dutch, English

**Keywords**

Research report, research methods and techniques

**Position of the course**

The master's programme is completed with the master's dissertation. The master's dissertation is a project in which the student employs his/her ability to analyse and synthesize information, to independently solve problems at an academic level, or to create art. The result reflects the student's general critical and reflective attitude or his/her disposition towards research. The master's dissertation contributes to the realisation of a number of desired programme competences (cf. <http://www.ugent.be/ea/nl/onderwijs/administratie/Opleidingscompetenties/overzicht.htm>).

**Contents**

The master's dissertation is a research project, consisting of the execution of a subject (literature search, topical study, research and the reflection on the research, experiments, experimentations, designs, simulations, results, conclusions,...) and a presentation with oral defence. One interim report is also expected. While executing the master's dissertation, the student will regularly meet with his/her supervisors. The subject and contents of the master's dissertation can be determined in two ways. Supervisors can determine and announce possible subjects via the electronic platform. Possible subjects include the definition of the problem and goal. Students can choose such a subject. Students are also free to propose their own master's dissertation's subject, by formulating a subject and finding a supervisor. Either way, the subject of the master's dissertation is always only determined after joint consultation between the student and the dissertation supervisor(s). The supervisor will concretize the desired final competences.

**Initial competences**

At the start of the master's dissertation, a basic knowledge is expected in the field of research. The student has an advanced knowledge of and an insight into the field in

general, and in the specialization in particular. Next to this, the student can independently look up and process information, can formulate research questions, can report and discuss on scientific findings etc. The student will further develop these competences during the execution of the master's dissertation.

### **Final competences**

After the execution of the master's dissertation, the student must at least meet the following final competences:

1. Define, study and analyse the research problem
2. Find an appropriate methodology, in accordance with the applicable scientific norms
3. Critically analyse, formulate, study, execute and/or process different aspects in the execution of research (literature search, topical study, research and the reflection on the research, experiments, experimentations, designs, simulations, results, conclusions,...)
4. Render and synthesise the results concisely
5. Communicate adequately on the research, the results and problems, present and found them, both to colleagues as to laypeople
6. Self-assessment with adequate and critical self-correction and objectivity
7. Give proof of independency, motivation, dedication, drive to innovation and creativity, initiative and perseverance

### **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

### **Learning materials and price**

More information on the outline of the master's dissertation can be found on the faculty's website: <http://www.ugent.be/ea/nl/onderwijs/administratie/masterproef/notavormmasterproef.pdf>

### **References**

### **Course content-related study coaching**

The responsibility for the supervision of the master's dissertation rests with one or several dissertation supervisors, including at least one active tenured academic staff member or a doctor-assistant at Ghent University or a visiting professor or a researcher who holds the doctor's title as a permanent or temporary member of staff at Ghent University or the Research Foundation Flanders (FWO). It is the supervisor who proposes the counselling committee, consisting of at least two persons, including the supervisor. This counselling committee will guide the student during the project. In addition to regular workshops, at least one interim evaluation is obligatory, in which the student gives an oral report on the progress of the work, in the presence of the counsellors. This interim evaluation has no effect on the final mark of the master's dissertation, but gives the counsellors the chance to adjust the student's approach if needed.

### **Evaluation methods**

continuous assessment

### **Examination methods in case of periodic evaluation during the first examination period**

### **Examination methods in case of periodic evaluation during the second examination period**

### **Examination methods in case of permanent evaluation**

Oral examination, assignment

### **Possibilities of retake in case of permanent evaluation**

examination during the second examination period is possible

### **Extra information on the examination methods**

The master's dissertation is evaluated on the basis of the written report as well as on the public defence and presentation of the dissertation. The master's dissertation is evaluated by the examination committee. This examination committee consists of at least three members, including one or two supervisors, and one to three commissioners. The examination committee differs in at least one member from the

counselling committee. At least one of the commissioners belongs to an academic research group other than the one that supervises the student.

### **Calculation of the examination mark**

The master's dissertation is evaluated by means of a standard assessment form (cf. <http://www.ugent.be/ea/nl/onderwijs/administratie/masterproef>). The calculation of the examination mark is to be determined by each supervisor and will be put in the electronic platform Plato, with default marks: • 30 % of the marks on practical and personal aspects • 50 % of the marks on scientific aspects • For the public oral defence, the percentage is determined on 20 %, of which 10 % for the presentation and 10 % for the answers on the questions.