

In view of the health context linked to the spread of the coronavirus, the methods of organisation and evaluation of the learning units could be adapted in different situations; these possible new methods have been - or will be - communicated by the teachers to the students.

28 credits	
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Language :	English
Place of the course	Louvain-la-Neuve
Main themes	<p>The Master thesis is</p> <ul style="list-style-type: none"> - the opportunity to acquire transversal competencies not yet or only partially developed previously, - a project aiming at solving a complex engineering problem by applying competencies previously acquired. <p>The Master thesis may have a major 'research' or 'technological development' component. These components are however not exclusive; some theses may involve both dimensions.</p> <p>The transversal competencies (referring to LO's) developed during the Master thesis are mainly: writing, communication, planning and argumentation, openness to the societal aspects of the project.</p> <p>Information about master theses can be found on the dedicated Moodle web site https://moodleucl.uclouvain.be/course/view.php?id=11582</p>
Aims	<p>LO1' to demonstrate he/she masters a body of knowledge and basic skills in science and/or engineering sciences, bound about his/her thesis;</p> <p>LO2' to lead to completion a major, in amplitude and spent time, engineering approach applied to the development of a product, service or facility referred to the thesis (applies to theses with a major 'technological development' component) ;</p> <p>LO3' to lead to completion a major, in amplitude and spent time, research work aiming at the understanding and the contribution to the resolution of an original scientific question of theoretical or physical type (applies to theses with a major 'research' component. They are however not exclusive; some theses may involve both dimensions, 'research' and 'development') ;</p> <p>LO4' to organise and plan the master thesis work on the basis of allocated resources and time constraints, of security (if applicable) and of available competencies ;</p> <p>LO5' to efficiently communicate both orally and in writing (in French and/or in English) to realise the master thesis ;</p> <p>LO6' to take into account the societal impact of his/her master thesis (possible economical recovery and/or ethical impact and/or environmental and/or social impact).</p> <p>Specific learning outcomes are defined on the Moodle web site.</p> <p>-----</p> <p><i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i></p>
Evaluation methods	<p>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</p> <p>Three grids (referring to LO's) define criteria to evaluate the year's work, the manuscript and the oral defense.</p> <p>The program commission may eventually add additional criteria.</p> <p>The criteria are evaluated by a letter (A: excellent, B: very good, C: good, D: satisfactory, E: sufficient, F: failed, NA: not applicable).</p> <p>A final note is then attributed.</p>

Teaching methods	<p>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</p> <p>The student is responsible for the organisation of regular meetings with his/her director(s).</p> <p>The student first prepare and hand in a thesis plan (roadmap) to his/her director(s) (and to program commission if requested) (deadline : 1 or 2 months after the beginning of the project).</p> <p>The plan contains the following items (not necessarily all of them):</p> <ul style="list-style-type: none"> • clear statement of the objective(s), • list of targeted LO's (especially specific ones), • context (application domain, societal impacts, ...), • proposed methods (theory, experimental tools, developments, simulation, ...), • list of available technical (equipments, codes, ...) and human <p>(supervisors, and resource persons for technical aspects) resources,</p> <ul style="list-style-type: none"> • first bibliographical research, including technical manuals, • first schedule of tasks with deliverables.
Content	<p>The Master thesis may have a major “research” or “technological development” component. These components are however not exclusive; some theses may involve both dimensions, “research” and “technological development”.</p> <p>The Master thesis may also be done in collaboration with industry.</p>
Inline resources	<p>Rules and guidelines, important dates, templates and other information about master theses can be found on the dedicated Moodle web site https://moodleucl.uclouvain.be/course/view.php?id=11582</p>
Faculty or entity in charge	EPL

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Data Science Engineering	DATE2M	27		