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| 27.00 credits |  | Q1 and Q2 |
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| Language :                  | French                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Place of the course         | Louvain-la-Neuve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Main themes                 | <p>The master thesis is a personal work that each student must complete during his master cycle. This thesis is an initiation to scientific research that allows the future engineer to study a topic of his own preference. As a future engineer, the student must identify and address a specific question by respecting the following general approach :</p> <ol style="list-style-type: none"> <li>(1) Summarize the current knowledge about the chosen topic ;</li> <li>(2) Set an experimental protocol (in a wide meaning of the term) ;</li> <li>(3) Do observations (in the field or in a laboratory) ;</li> <li>(4) Analyze and interpret these observations ;</li> <li>(5) Draw appropriate conclusions ;</li> <li>(6) Present this material in a scientific document ;</li> <li>(7) Publicly defend his work</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Learning outcomes           | <p><b>At the end of this learning unit, the student is able to :</b></p> <p>At the end of the master thesis, the student is able to :</p> <ul style="list-style-type: none"> <li>· analyze scientific publications that are related to his master thesis topic, master and discuss the corresponding content and present this content in a summarized way ;</li> <li>· design a consistent and sound approach in order to answer a scientific question by using a state-of-the-art knowledge about the question ;</li> </ul> <p>1 · set up an experimental protocol (in a wide meaning of the term), analyze and interpret the corresponding results by the light of the scientific literature at hand and by taking into account the corresponding limitations ;</p> <ul style="list-style-type: none"> <li>· communicate the results and justify them using a rigorous scientific language, both in a printed document and during a public oral presentation in front of a jury.</li> </ul> <p>M.1.3, M1.4., M.1.5., M.2.3., M.2.4, M.3.1. - M.3.9., M.6.1 - M.6.8.</p>                                                                                                                                                                                                                                                                                                                                                                                            |
| Evaluation methods          | <p>The master thesis must be presented during one of the examination sessions that take place during the master cycle. A student that registers for the master thesis examination but who does not present it before or during the last September session will fail for the year.</p> <p>The master thesis will be defended in English.</p> <p>The work that has been made by the student during the year and in the framework of the master thesis will be evaluated by the promoter (possibly co-promoters) of the master thesis. A jury evaluates both the quality for the printed document, for the oral presentation and for the public defense. The jury takes a final decision about the score for the master thesis using a weighted average that accounts for the work during the year (30%), the printed document (50%) and the public defense (20%). The score for the oral presentation is reported as the score for the "Master thesis' accompanying seminar".</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Content                     | <p>Typically, possible topics for the master thesis are proposed by promoters. A student can however suggest a new topic and thus can look for a potential promoter that would accept to supervise him.</p> <p>Upon acceptance by the Faculty, a part of the master thesis can be done outside of the university, in Belgium or abroad. This applies for example to Erasmus master theses and internships master theses. The master thesis supervision is under the responsibility of a promoter (possible two copromoters). The (co)promoter(s) is in charge of supervising the quality and the timing of the work that must be done by the student. These aspects are evaluated as a specific item, i.e. the 'Evaluation of the personal work made the student', which is part of the final score.</p> <p>It is advised that students choose both the topic and the promoter for their master thesis during the second semester of the first year in the master cycle. All the way long during their master thesis, students must fulfill the master thesis regulation as described in the document that can be found at <a href="https://intranet.uclouvain.be/fr/myucl/facultes/agro/memoire-fin-etudes-masters-bioingenieur.html">https://intranet.uclouvain.be/fr/myucl/facultes/agro/memoire-fin-etudes-masters-bioingenieur.html</a>. This document also specifies the specific rules that apply for students that are registered to the CPME programme.</p> |
| Faculty or entity in charge | AGRO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| <b>Programmes containing this learning unit (UE)</b> |         |         |              |                                                                                     |
|------------------------------------------------------|---------|---------|--------------|-------------------------------------------------------------------------------------|
| Program title                                        | Acronym | Credits | Prerequisite | Learning outcomes                                                                   |
| Master [120] in Agricultural Bioengineering          | BIRA2M  | 27      |              |  |