

3.0 credits	10.0 h + 20.0 h	1q
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Teacher(s) :	Baret Philippe (coordinator) ; Hanert Emmanuel ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	<p>1) Introduction to the theory of the analysis of systems (10 hrs)</p> <ul style="list-style-type: none"> <li>- definition of systems</li> <li>- terminology of modeling (glossary / vocabulary)</li> <li>- typology of models</li> <li>- steps of modeling (conception, resolution procedures, verification/benchmarking, validation and analysis of scenarios)</li> <li>- introduction to some analysis techniques (stability of models, simulation, optimization)</li> </ul> <p>2) Accomplishing a project of modeling in the field of biological, agronomic or environmental engineering (20hrs)</p>
Aims :	<p>Bio-engineers are more and more confronted to management problems of complex natural and living systems. Among the methodologies that can be used, the systemic approach and its associated tools (modeling, simulation and optimization) occupy an increasing place owing to / thanks to, among others, the development of the micro-information. This course aims to apply the systemic approach to a system based on the realization of a project.</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>
Cycle and year of study :	<ul style="list-style-type: none"> <li>&gt; <a href="#">Bachelor in Bioengineering</a></li> <li>&gt; <a href="#">Master [120] in Philosophy</a></li> <li>&gt; <a href="#">Master [120] in Ethics</a></li> <li>&gt; <a href="#">Master [120] in Environmental Science and Management</a></li> <li>&gt; <a href="#">Master [120] in Geography : General</a></li> <li>&gt; <a href="#">Master [120] in Geography : Climatology</a></li> <li>&gt; <a href="#">Bachelor in Information and Communication</a></li> <li>&gt; <a href="#">Bachelor in Philosophy</a></li> <li>&gt; <a href="#">Bachelor in Pharmacy</a></li> <li>&gt; <a href="#">Bachelor in Engineering : Architecture</a></li> <li>&gt; <a href="#">Bachelor in Computer Science</a></li> <li>&gt; <a href="#">Bachelor in Psychology and Education: General</a></li> <li>&gt; <a href="#">Bachelor in Economics and Management</a></li> <li>&gt; <a href="#">Bachelor in Motor skills : General</a></li> <li>&gt; <a href="#">Bachelor in Human and Social Sciences</a></li> <li>&gt; <a href="#">Bachelor in Chemistry</a></li> <li>&gt; <a href="#">Bachelor in Sociology and Anthropology</a></li> <li>&gt; <a href="#">Bachelor in Political Sciences: General</a></li> <li>&gt; <a href="#">Bachelor in History of Art and Archaeology : General</a></li> <li>&gt; <a href="#">Bachelor in Mathematics</a></li> <li>&gt; <a href="#">Bachelor in History</a></li> <li>&gt; <a href="#">Bachelor in Biomedicine</a></li> <li>&gt; <a href="#">Bachelor in Engineering</a></li> <li>&gt; <a href="#">Bachelor in Religious Studies</a></li> </ul>
Faculty or entity in charge:	AGRO