


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.

6 credits	30.0 h + 10.0 h	Q2
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Teacher(s)	Meskens Nadine ;
Language :	French
Place of the course	Mons
Main themes	<p>Introduction to Operational research</p> <p>Model formulation</p> <p>Linear programming :</p> <ul style="list-style-type: none"> <li>-Graphic resolution</li> <li>-simplex algorithm</li> <li>- sensitivity analysis</li> </ul> <p>Integer programming</p> <p>Use of solvers</p> <p>applications</p>
Aims	<ul style="list-style-type: none"> <li>- To model management problems such as work scheduling, blending problems, allocation of resources, implementation problems ...</li> <li>- to solve graphically a continuous linear problem with two decision variables</li> <li>- to Solve all types of continuous linear programs by the simplex algorithm</li> <li>1 - Explain and interpret the values of the simplex tableau</li> <li>- Analyze the final simplex table</li> <li>- Conduct sensitivity analysis</li> <li>- Construct and interpret the dual model</li> <li>- Solve linear integer programming</li> <li>- Use of solvers such as EXCEL, LINDO or CPLEX</li> </ul> <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><b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b></p> <p>Written examination with only exercices</p>
Bibliography	<p>- NOBERT Y., OUELLET R., PARENT R. (2002), La recherche opérationnelle, Gaëtan Morin.</p> <p>- WINSTON W. (2004), Operations Research:Applications and Algorithms, 4th ed., Duxbury.</p>
Faculty or entity in charge	CLSM

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Aims
Master [60] in Management (shift schedule)	GEHM2M1	6		
Master [120] in Management (shift schedule)	GEHM2M	6		