


5.00 credits

30.0 h

Q2

Teacher(s)	Chevalier Philippe ;Corluy Olivier (compensates Chevalier Philippe) ;
Language :	English
Place of the course	Louvain-la-Neuve
Prerequisites	<ul style="list-style-type: none"> <li>• An introductory course in operations management</li> <li>• A probability course</li> </ul> <p>In addition, this course is reserved for students with a bachelor's degree in business engineering or students with equivalent quantitative method skills</p>
Main themes	This course presents the key underlying principles that drive operations efficiency in a factory, in services or in a supply chain. These principles can be used to gain valuable insight for complex real-life problems.
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b></p> <p><b>Having regard to the LO of the programme, this activity contributes to the development and acquisition of the following LO:</b></p> <ul style="list-style-type: none"> <li>• 2. Knowledge and reasoning                         <ul style="list-style-type: none"> <li>• 2.1. Master the core knowledge of each area of management.</li> <li>• 2.2. Master highly specific knowledge</li> <li>• 2.4. Activate and apply the acquired knowledge</li> </ul> </li> <li>• 3. A scientific and systematif approach                         <ul style="list-style-type: none"> <li>• 3.1. Conduct a clear, structured, analytical reasoning</li> <li>• 3.2. Collect, select and analyze relevant information</li> <li>• 3.3. Consider problems using a systemic and holistic approach</li> <li>• 3.4. Perceptively synthesize demonstrating a certain conceptual distance</li> <li>• 3.5. Produce, through analysis and diagnosis, implementable solutions</li> </ul> </li> <li>• 7. Project management                         <ul style="list-style-type: none"> <li>• 7.1. Analyse a project within its environment and define the expected outcomes</li> <li>• 7.2. Organize, manage and control the process</li> <li>• 7.3. Make decisions and take responsibility for them in an uncertain world</li> </ul> </li> </ul> <p><b>At the end of this course, the student will be able to :</b></p> <ol style="list-style-type: none"> <li>1. Model operations management decisions</li> <li>2. Understand the influence of variability and uncertainty for operations management</li> <li>3. Analyze and solve real life operations management problems</li> <li>4. Model congestion for operations and supply chain management</li> </ol>
Evaluation methods	<p><b>Continuous evaluation</b></p> <ul style="list-style-type: none"> <li>• Type of evaluation: <i>Group work on a real case (groups of 4) + homeworks (groups of 2)</i></li> <li>• Comments: <i>participation in the course and presentation of the progress of the work</i></li> </ul> <p><b>Evaluation week</b></p> <ul style="list-style-type: none"> <li>• Oral: <i>Yes</i></li> <li>• Written: <i>No</i></li> <li>• comments: <i>Presentation of group work.</i></li> </ul> <p><b>Examination session</b></p> <ul style="list-style-type: none"> <li>• Oral: <i>No</i></li> <li>• Written: <i>3 hours</i></li> <li>• comments: <i>Individual Open Book Examination</i></li> <li>• Unavailability or comments: <i>September examination: written 3h, replaces only the written exam. The part of the evaluation related to the continuous evaluation will that of the semester.</i></li> </ul>

Teaching methods	Lectures Exercices Problem based learning Company visit Real life case study in a company
Content	ANALYZING AND UNDERSTANDING THE EFFECT OF VARIABILITY FOR OPERATIONS MANAGEMENT <ul style="list-style-type: none"> <li>• Variability basics</li> <li>• Push and Pull production systems</li> <li>• Total quality</li> <li>• Development of simulation models for production systems</li> </ul> MANAGING OPERATIONS IN A PLANT <ul style="list-style-type: none"> <li>• Pull models</li> <li>• Shop floor controls and scheduling</li> </ul> MANAGING OPERATIONS FOR SERVICES <ul style="list-style-type: none"> <li>• Queueing models</li> <li>• Non-stationary systems</li> </ul> MANAGING OPERATIONS IN A SUPPLY CHAIN <ul style="list-style-type: none"> <li>• Managing inventory</li> <li>• Managing capacity</li> </ul> Managing time
Faculty or entity in charge	CLSM

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] : Business Engineering	INGE2M	5		
Master [120] : Business Engineering	INGM2M	5		