UCLouvain

llsms2032

2019

Advanced Operations Management : Models and Applications (in English)

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.

5 credits	30.0 h	Q2

Teacher(s)	Chevalier Philippe ;Corluy Olivier (compensates Chevalier Philippe) ;Mishra Nishant ;
Language :	English
Place of the course	Louvain-la-Neuve
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.
Aims	**Having regard to the LO of the programme, this activity contributes to the development and acquisition of the following LO:** • 2. Knowledge and reasoning • 2.1. Master the core knowledge of each area of management. • 2.2. Master highly specific knowledge • 2.4. Activate and apply the acquired knowledge • 3. A scientific and systematif approach • 3.1. Conduct a clear, structured, analytical reasoning • 3.2. Collect, select and analyze relevant information • 3.3.Consider problems using a systemic and holistic approach • 3.4. Perceptively synthesize emonstrating a certain conceptual distance • 3.5.Produce, through analysis and diagnosis, implementable solutions • 7. Project management • 7.1.Analyse a project within its environment and define the expected outcomes • 7.2. Organize, manage and control the process • 7.3.Make decisions and take responsibility for them in an uncertain world 1 **At the end of this course, the student will be able to :** 1. Model operations management decisions 2. Understand the influence of variability and uncertainty for operations management 3. Analyze and solve real life operations management problems 4. Model congestion for operations and supply chain management - - - - *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".*
Evaluation methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** **Continuous evaluation** • Type of evaluation: *Group work on a real case (groups of 4) + homeworks (groups of 2)* • Comments: *participation in the course and presentation of the progress of the work* **Evaluation week** • Oral: *Yes* • Written: *No* • comments: *Presentation of group work.* **Examination session** • Oral: *No* • Written: *3 hours* • comments: *Individual Open Book Examination* • Unavailability or comments: *September examination: written 3h, replaces only the written exam. The part of the evaluation related to the continuous evaluation will that of the semester.*

Teaching methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** 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 • Variability basics • Push and Pull production systems • Total quality • Development of simulation models for production systems MANAGING OPERATIONS IN A PLANT • Pull models • Shop floor controls and scheduling MANAGING OPERATIONS FOR SERVICES • Queueing models • Non-stationary systems MANAGING OPERATIONS IN A SUPPLY CHAIN • Managing inventory • Managing capacity Managing time
Faculty or entity in charge	CLSM

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Aims
Master [120] : Business Engineering	INGM2M	5		
Master [120] : Business Engineering	INGE2M	5		