

2016-2017

Operational Research

5.0 credits

30.0 h + 10.0 h

1q

Teacher(s) :	Madani Mehdi (compensates Keymolen Guy) ; Keymolen Guy ;				
Language :	Français				
Place of the course	Louvain-la-Neuve				
Prerequisites :	Basic course in mathematics, probability and statistics				
Main themes :	This course is an introductory course in Operations Management. Problems occurring in an operations management setting are studied using mathematical models and techniques, or more generally a formal approach.				
Aims :	At the end of the class, students should be able o to specify the reference framework and the elements playing a part in the decision making process in the field of operations and production management; to analyze these elements, in particular using mathematical models and techniques (without neglecting human factors), in order to help in the decision-making process. 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 :	Closed book written exam composed of problems to solve using the techniques studied in the course; group work.				
Teaching methods :	The lectures are illustrated by examples and provide an overview of the concepts and basic techniques. Exercise sessions emphasize the assimilation of the techniques and provide additional information where applicable, depending on the case studies at hand.				
Content :	The course starts with an introduction to the basics of operations management and production of goods and services. Next, two topics are studied: the design of a production system and the mid to short-term planning of operations.				
	 Elementary decision making under uncertainty or risk				
	Elementary demand forecast methods				
	Inventory management				
	Introduction to linear programming				
	Planning Capacity				
	Planning and scheduling operations				
	Planning resources				
Bibliography :	 Lee J. Krajewski, Manoj K. Malhotra, Larry P. Ritzman, Operations Management: Processes and Supply Chains, Global Edition Pearson, 2015 				
	Dilip Chhajed and Timothy J. Lowe (editors), Building Intuition: Insights from Basic Operations Management Models and Principles, Springer, 2010				
Faculty or entity in charge:	CLSM				

Programmes / formations proposant cette unité d'enseignement (UE)						
Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage		
Master [60] in Management	GEST2M1	5	-	٩		