LLSMS2033

2016-2017

Transportation and Logistics (in English)

5.0 credits	30.0 h	2q

Teacher(s) :	Jourquin Bart ; Agrell Per Joakim ;
Language :	Anglais
Place of the course	Louvain-la-Neuve
Main themes :	This advanced course describes the logistics systems, their managerial objectives and the current trends in the development of advanced decision support systems. In particular, emphasis is put on modeling and solving logistics problems using state-of-the-art approaches. The transportation, distribution and warehousing functions will be studied indetails through lectures and case studies.
Aims :	Having regard to the LO of the programme X, this activity contributes to the development and acquisition of the following LO: -- 1. Corporate citizenship 1.1. 'Demonstrate independent reasoning, look critically ' 1.3. Decide and act responsibly ' 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 'demonstrating a certain conceptual distance ' 3.5.Produce, through analysis and diagnosis, implementable solutions' 4. Innovation and entrepreneurship 4.4.Reflect on and improve .... professional practices. 5. Work effectively in an international and multicultural environment 5.2.Position ... the functioning of an organization, in its ...socio-economic dimensions' 6. Teamwork and leadership 6.1. Work in a team... 7.1.Analyse a project within its environment and define the expected outcomes' 7.2. Organize, manage and control the process, ' 8. Communication and interpersonal skills 8.1. Express a clear and structured message' 8.2. Interact and discuss effectively ' 9. Personal and professional development 9.1. Independent self-starter ' 9.2. Self-awareness and self-control ' *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".*
Content :	The class mixes - lectures with additional individual readings and exercises, - solution of cases in groups: design and implementation of solutions . Content : 1. Introduction to logistics systems: - Logistics systems - Managerial issues and trends - Decision support systems 2. Models and methods - Network Optimisation models and methods, - Mixed Integer Programming and decomposition methods, - Heuristic optimisation methods. 3. Design of Logistics Network 4. Design and Operation of Warehouses 5. Planning and Scheduling for Long-Haul Freight Transportation 6. Planning and Scheduling for Short-Haul Freight Transportation Methods : In-class activities 1 Lectures 1 Exercices/PT 1 Project based learning At home activities 1 Readings to prepare the lecture

	1 Exercices to prepare the lecture 1 Paper work 1 Students presentation
Bibliography :	: No TEXTBOOK. and available on line . No book protected by copyright. . READING FILE compulsory and available on line Supports available on line are on ICAMPUS.
Other infos :	Evaluation : - Case solutions including class presentations, - Written exam (open book) with open questions and exercises. References : - Stadtler H., C. Kilger (Eds), Supply chain management and advanced planning : concepts, models, software and case studies , 2d edition, Springer, 2002. - Y. Pochet, L.A.Wolsey: Production Planning by Mixed Integer Programming , Springer, 2006. - Introduction to Logistics Systems Planning & Control, Ghiani, Laporte, Musmanne, Wiley 2004. Additional and more specialized references will be provided during the class Internationalisation : 1 international content (does the course tackle international issues related to the course content ?) 1 international case study Corporate features : 1 case study 1 corporate guest Skills : 1 presentation skills 1 writing skills 1 team work 1 problem solving 1 decision making 1 critical thinking Techniques and tools for teaching and learning : 1 IT tools 1 modelling 1 quantitative methods 1 mathematics
Faculty or entity in charge:	CLSM

Programmes / formations proposant cette unité d'enseignement (UE)				
Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Master [120] in Business Engineering	INGM2M	5	-	
Master [120] in Business Engineering	INGE2M	5	-	