UCL Université catholique de Louvain

LLSMS2112

2015-2016

Supply Chain Modelling and Management

5.0 credits	30.0 h	1q

Teacher(s) :	Agrell Per Joakim ;
Language :	Anglais
Place of the course	Louvain-la-Neuve
Main themes :	The supply chain can be viewed as a system consisting of the entire flow of information, materials, and services from raw materials suppliers through factories and warehouses to the end-customer. The management of the supply chain offers ample usage of quantitative modeling techniques for problems on strategic, tactic and operational level. Since the supply chain itself is deeply integrated in the enterprise activities, the problems are naturally interdisciplinary. This course focuses on the modeling of managerial coordination and control problems in the chain. By using in-depth knowledge from the fields of operations management, operations research and economics, valuable insight can be given for complex, integrated real-life problems. Specific issues that will be discussed include: facility location, logistic network planning and design, routing, inventory management, supplier contracting, sourcing strategies, quality assurance, information technology, flexibility, globalization, and performance measurement. The course format is interactive, theoretical sessions, readings and demonstrations intertwined with cases, computer simulations and company visits. A part of the class involves a CEMS corporate partner and their supply chain concepts.
Aims :	The major learning objectives of the course are to " Distinguish strategic, tactic and operational problems in SCM. " Understand the impact, feasibility and limitations of selected modeling techniques. " Understand formal microeconomic analysis of the supply chain relations. " Identify, formulate, solve and critically review some key coordination and control problems in the supply chain. *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 :	Résumé Lectures presenting the topics and methods, alternated with seminars for case studies, student presentations and computer laboratories. Guided site visits with instructor debriefing to illustrate topics. In-between sessions individual and group-work on assignments and cases. Contenu The course is divided into four modules: Strategy, Markets and Organization (A), Chain Planning (B), Chain Optimization (C) and Chain Coordination (D). The first module the studies supply chains from an economic and industrial organizational viewpoint, positioning the managerial parts of the course in a larger context. It also introduces a strategic framework that is applied throughout the class. The second module briefly reviews the classic inventory management problem that characterizes supply chains. The third module deals with the mathematical planning tools that are used in the planning and design of facilities in regional and international contexts. The fourth module deepens the discussion on challenges, models and solutions for coordination of supply chains through external contracts, partnerships and internal incentive systems. Finally, the course is closed with a study of electronic commerce in supply chains and disintermediation. Each module contains a mix of lectures, case studies, papers and assignments. Méthodes Activités en présentiel - Exposés magistraux - Séminaire interactif - Micro-enseignement (parties de cours présentées par les étudiants) - Apprentissage par problème - Jeu de rôle/simulation Activités hors présentiel - Lectures préparatoires - Préparation des exercices - Rédaction de travaux - Préparation de présentations

Other infos :	Pré-requis : Introductory courses in operations management, operations research and statistics. Evaluation : Each case is graded on a scale 0-20, including one presentation. Lateness is penalized with one point per day. The cases intervene in the final grade on if all cases are submitted with at least passing grade (10/20). For students that do not fulfill the requirements, the entire grade is assigned at the final exam. The final exam is an individual test of case analysis of the kind exposed in the cases. Assignments are corrected but not graded and do not influence the final grade. Credits for term papers or projects are only valid for the first exam session; the possible retake exams are only based on a final exam. Support : Slides provided through icampus Références : Provided during the class Internationalisation - CEMS course - international content (does the course tackle international issues related to the course content ?) - international guests - international case study Corporate features - conference - case study - corporate guest Skills - presentation skills - writing skills - team work - problem solving - decision making - critical thinking - assertiveness Techniques and tools for teaching and learning : - simulation - quantitative methods - qualitative methods
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	INGE2M	5	-	
Master [120] in Management	GESM2M	5	-	
Master [120] in Management	GEST2M	5	-	