UCL Université catholique de Louvain

MQAHD2131

2015-2016

Recherche opérationnelle

6.0 credits	30.0 h + 10.0 h	2q

Teacher(s) :	Meskens Nadine ;
Language :	Français
Place of the course	Mons
Main themes :	Introduction to Operational research Model formulation Linear programming : -Graphic resolution -simplex algorithm - sensitivity analysis Integer programming Use of solvers applications
Aims :	- To model management problems such as work scheduling, blending problems, allocation of resources, implementation problems ... - to solve graphically a continuous linear problem with two decision variables - to Solve all types of continuous linear programs by the simplex algorithm - Explain and interpret the values of the simplex tableau - Analyze the final simplex table - Conduct sensitivity analysis - Construct and interpret the dual model - Solve linear integer programming - Use of solvers such as EXCEL, LINDO or CPLEX *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 :	Written examination with only exercices
Bibliography :	- NOBERT Y., OUELLET R., PARENT R. (2002), La recherche opérationnelle, Gaëtan Morin. - WINSTON W. (2004), Operations Research:Applications and Algorithms, 4th ed., Duxbury.
Faculty or entity in charge:	BLSM