Humanitarian Logistics

ECTS : 3

Description du contenu de l'enseignement :

Decision making process in disaster management is extremely difficult due to the multiple actors (decision-makers) involved and the complexity of the tasks addressed. This course covers the challenges and solutions associated with humanitarian logistics and healthcare supply chains in emergency mitigation, preparedness, disaster response, and recovery. Part I: Humanitarian logistic - Definition, specificities, differences with conventional logistics - Pre-positioning logistics, disaster preparedness, procurement, donor rules - Case studies Part II: Graph and mathematical modelling - Model: graph model, Mixed integer linear programming - Classical problems: inventory problem, shortest path, maximum flow problem, scheduling - Applications: commodity transport and delivery, emergency evacuation, facility location, task scheduling and planning - Tools: graph algorithms, Excel optimisation solver

Compétence à acquérir :

- Analysis and evaluation in humanitarian logistics
- Certain approaches of decision making and operational research

Mode de contrôle des connaissances :

Projects

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