UE Transport Logistics and Operations Research

Niveau d'étude
Bac +5

ECTS
6 crédits

Crédits ECTS Echange
6.0

Composante
UFR Informatique, mathématiques et mathématiques appliquées (IM2AG)

Période de l'année
Automne (sept. à dec./janv.)

Diplômes intégrant cet élément

- Master Informatique

Langue(s) d'enseignement: Anglais
Méthodes d'enseignement: En présence
Forme d'enseignement : Cours magistral
Ouvert aux étudiants en échange: Oui
Crédits ECTS Echange: 6.0
Code d'export Apogée: GBX9CO10

Présentation

Description

Presenting models and tools for solving problems of company location and transport management in a supply chain.

Description:

This course presents two aspects: strategic design of a distribution network in a supply chain and tactical-operational aspects of network management.

For each aspect the course develops two key points:

- in network design, the choice of location and the establishment of services (production site, warehouse, logistics platform) and the synthesis of the transport network (connections / roads between production sites, warehouses, logistics centres)
- in network management, planning and modes of distribution transport (planning delivery rounds, number and types of vehicles).

For each of the three problem areas: location, delivery rounds and network design, students will study both modelling and techniques for accurate resolution (Branch-and-Bound) plus techniques for approximate resolutions (Lagrangian relaxation , metaheuristics) and how they are set up in commercial software (OPL-CPLEX Studio, Excel solver), or free software (COIN, lp-solve) or ad-hoc.

Evaluation :

Individual written exam (1/2 of the final mark) and group project (1/2 of the final mark).

Heures d'enseignement

CMTD	Cours magistral - Travaux dirigés	54h

Période : Semestre 9

Infos pratiques

Contacts

Responsable d'UE

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Lieu(x) ville

Grenoble

Campus

Grenoble - Domaine universitaire