



Faculté des sciences appliquées

FSA

INMA2473 **OPERATIONS RESEARCH : STOCHASTIC AND DYNAMIC MODELS**

[30h+22.5h exercises] 5 credits

This two-yearly course is taught in 2005-2006, 2007-2008,...

This course is taught in the 1st semester

Teacher(s): Yves Smeers
Language: french
Level: 2nd cycle course

Aims

Introduce the student to the particular problems raised by the treatment of multitemporal decisions when some of the relevant parameters of the problems are uncertain

Main themes

The course concentrates on stochastic and dynamic programming and their application

Content and teaching methods

Linear stochastic dynamic programming problems : formulation and interpretation
Methods of scenario aggregation for stochastic dynamic programming
Decomposition methods for stochastic dynamic programming
Approximation of stochastic programs and methods of scenario reductions
Lagrangian relaxation of stochastic problems with integer variables