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:	Second cycle

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
Decompositon methods for stochastic dynamic programming
Approximation of stocahstic programs and methods of scenario reductions
Lagrangian relaxation of stochastic problems with integer variables

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

no special information

Programmes in which this activity is taught

ECGE3DS/SC	Diplôme d'études spécialisées en économie et gestion (Master in business administration) (Supply Chain Management)

Other credits in programs

MAP22	Deuxième année du programme conduisant au grade d'ingénieur civil en mathématiques appliquées	(5 credits)