

UE1 COMMON COURSES



ECTS
17,5 crédits



Composante
UFR de
mathématiques
et
informatique
(UFR27)



Période de
l'année
Printemps

Liste des enseignements

Obligatoire00Matière7.054.0Matière54.0Objectifs: Provide the basic concepts of game theory and acquire the methods to model and solve rigorously strategic situations. The course stresses the mathematics of the models. Every concept is illustrated by exercises. Contenu du cours: Strategic games, domination, dominant strategies, sophisticated equilibria, Pareto solutions Two-Player Zero-sum games: guaranteeing and defending, maxmin, minmax, value, prudent strategies, optimal strategies, saddle points Nash equilibrium, Best reply correspondence, fixed point, existence Extensive form games, Strategic associated games and subgames, sequential rationality, backward induction, subgame perfect equilibrium, relation to sophisticated equilibrium Mixed strategies, mixed extension of a game, characterisation of Nash equilibria, calculations of Nash equilibria. Références: books by:-Moulin,-Osborne and Rubinstein,-Myerson,Matière42.0