

## LECON2111

2013-2014

## Advanced Microeconomics I: Decision and Game Theory

5.0 credits	30.0 h + 6.0 h

Teacher(s) :	Maniquet François ;
Language :	Anglais
Place of the course	Louvain-la-Neuve
Main themes :	This course, like the second compulsory course in microeconomics, is intended to teach the basics of modeling techniques in microeconomics. The modeling techniques that are covered here are individual decision theory and game theory. In individual decision theory, the emphasis will be on the equivalence between the choice approach and the preference approach to individual decision-making and on the axiomatic derivation of the consequences of rationality assumptions. In game theory, the emphasis will be on modeling interaction situa-tions like games, and on the basic techniques of analyzing games to deduce the equilibrium strategies.
Aims:	Students are expected to know the basics of individual decision theory and game theory, and to be able to solve middle level problems in those two fields, which includes mastering the appropriate mathematical techniques. As a result, students are expected to be able to use decision and game theory to model situations of social inter-actions.  The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".
Content :	The course is composed of 14 three-hour lectures and four tutorials.  The contents will be: 1) abstract individual decision theory and the axioms of revealed preferences, economic decision theory and the law of demand, classical demand theory and the dual approaches to demand, rational decision under uncertainty and risk aversion. 2) definition of a game, a strategy, dominant, dominating, undo-minated and rationalizable strategies, Nash equilibrium and the existence theorem, subgame perfection and trembling hand perfection.
Other infos :	Background in economics and mathematics
	Written exam, about theory and exercizes
	A. Mas-Colell, M. D. Whinston and J. R. Green, 'Microeconomic theory', O.U.P.: New York - Oxford, 1995.
	One T. A. is in charge of the tutorials.
Cycle and year of study :	➤ Master [120] in Economics: Econometrics     ➤ Master [120] in Economics: General     ➤ Master [120] in Agricultural Bioengineering
Faculty or entity in charge:	ECON