

- Faculté des sciences économiques
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Business Strategy and Games (5ER2037)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en développement international des affaires	Cours: 2 ph	écrit: 2 h	3
Master en sciences économiques, orientation politique économique	Cours: 2 ph	écrit: 2 h	3
Master en statistique (avant 2015)	Cours: 2 ph	écrit: 2 h	3

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

Période d'enseignement:

- Semestre Automne

Equipe enseignante:

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Objectifs:

This course is an introduction to game theory and its applications in business strategy. The main objective is to provide the students with the required concepts and analytical tools to recognize strategic situations in business interactions, to model them as non-cooperative games and to analyze how one firm can exploit other players' strategic behavior for its own benefits. An equal emphasis will be given to formal modeling as well as description of real cases. These examples will enable the students to think strategically and to assess different tactics and strategies in various competition and negotiation contexts. While focusing on non-cooperative game theory's conceptual framework, the course highlights contracting possibilities as well as the potentials for coordination and cooperation.

Contenu:

The course combines an introductory game theory course with topics and cases from competitive business analysis. The following themes will be included:

- Industry analysis
- Business complementarities and added values
- Representations of games and assumptions
- Firm strategies and tactics
- Dominance and best response
- Nash equilibrium in pure and mixed strategies
- Extensive form and sequential rationality
- Business negotiations and bargaining problems
- Games with joint decisions
- Repeated games
- Information games: signaling and auctions
- Contracting and cooperation

Forme de l'évaluation:

2-hour written exam during the exam session at the end of the semester (100%).
Retake (August-September): 2-hour written exam (100%).

Documentation:

Main textbooks:

- Strategy: An Introduction to Game Theory, 3rd ed., Watson, J., 2013. W. W. Norton.
- Competitive Solutions, McAfee, R.P., 2002. Princeton University Press.

Background readings:

- Games, Strategies, and Managers. McMillan, J., 1992. Oxford University Press.
- Co-Operation, Brandenburger, A.M. & Nalebuff, B.J., 1996. Doubleday Business.
- The Art of Strategy, Dixit, A.K. & Nalebuff, B.J., 2010. W. W. Norton.

Other references:

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- Games of Strategy, 3rd ed., Dixit, A., Skeath, S. & Reiley, D.H. 2010. W W Norton.
- Modern Competitive Analysis, 3rd ed., Oster, S.M., 1999. Oxford University Press.
- Economics of strategy, 6th ed., Besanko, D. et al., 2013. John Wiley & Sons.
- A Primer in Game Theory, Gibbons, R. 1992. Prentice Hall.

Forme de l'enseignement:

Lectures: 2 hours per week
Office hours: on request by e-mail