

## Microeconomics

This course:

- 8 lectures (Wednesday 9h30 - 12h45, room A406 - building chênes 1),
- follows the previous course (by Jacques Potin),
- covers 2 main topics: general equilibrium theory, uncertainty (decision and equilibrium),
- relies on the textbook by Mas-Colell, Whinston and Green,
- the slides (together with the 2 problems sets, with solutions, the question set and the exams of previous years) are available on my website.

**Outline of the course.** (chapters and sections correspond to Mas-Colell *and alii* - the course does not cover the whole content of every section)

### General Equilibrium

- GE1 - Introductory Examples (ch 15): Edgeworth box (15B), an economy with one producer and one consumer (15C), an economy with  $N$  producers (the first part of 15D), partial equilibrium versus GE (15E).
- GE2 - The two Theorems of Welfare Economics (ch 16, except 16G): model (16B), 1st Theorem (16C, the role played by the "locally non satiated preferences" assumption), 2nd Theorem (16D in a simplified way, the role played by the convexity assumption), a short remark on Pareto Optimality and Social Welfare Optima (16E), first order conditions and the 2 theorems in the differentiable case (16F).
- GE3 - Existence and Uniqueness (ch 17, except 17G-H): model (17B), existence (17C, the role played by the convexity of preferences), local uniqueness (17D, regular economy, index theorem), the Sonnenschein Mantel Debreu Theorem (17E), examples of sufficient conditions for global uniqueness (17F gross substitutes, Pareto-optimal endowment, weak axiom of revealed preferences), existence with a large number of agents and non convex preferences (17I).

### Risk and Uncertainty

- RU1 - Decision under uncertainty (ch 6): a criterion of choice under uncertainty: expected utility theory (6B), risk aversion (6C), the difficult comparison of payoff distribution (6D), state-dependent utility (6E), subjective probability theory (6F).

- RU2 - GE under uncertainty (ch 19, except 19G-H): model (19B, contingent commodities), Arrow-Debreu Equilibrium (19C), a model with asset markets and the link with the Arrow-Debreu economy (19D-E), examples of incomplete markets (19F)

## References

The only reference you need for the course is:

- Microeconomic theory, A. Mas-Colell, M. Whinston and J. Green, 1995, Oxford University Press. Its scope is very general and mathematical. You may prefer to begin with other textbooks.<sup>1</sup>

Two other traditional microeconomics textbooks are:

- A Course in Microeconomic Theory, D. Kreps, 1990, Harvester Wheatsheaf.
- Microeconomic Analysis, H. Varian, 1992 (for the 3rd edition), Norton.

Other microeconomics textbooks are (these books do not cover all the material in this course):

- Lectures Notes in Microeconomic Theory, A. Rubinstein, 2006, Princeton University Press.
- Microeconomics: Behavior, Institutions, and Evolution, S. Bowles, 2006, Princeton University Press.

Some "historical" references on GE Theory ("historical" does not mean "obsolete"):

- *Éléments d'économie politique pure (ou théorie de la richesse sociale)*, L. Walras, 1874 (for the first edition). English translation by Jaffé (1954).
- *The Theory of Value: An axiomatic analysis of economic equilibrium*, G. Debreu, 1959, Yale University Press.
- *General Competitive Analysis*, K. Arrow and F. Hahn, 1971, North-Holland.

Additional (mathematical) references on GE Theory:

- *The Theory of General Economic Equilibrium: A differentiable approach*, A. Mas-Colell, 1985, Cambridge University Press.
- The appropriate chapters in the four volumes "Handbooks of Mathematical Economics" (the first three edited by K. Arrow and M. Intriligator, the fourth one by W. Hildenbrand and H. Sonnenschein), North Holland.

One reference specialized in the microeconomics of uncertainty and information is:

- *The analytics of uncertainty and information*, J. Hirshleifer and J. Riley, 1992, Cambridge University Press.

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<sup>1</sup>The mathematical Appendix in this textbook can be most useful as well.