ADVANCED MICROECONOMICS I

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Rome Economics Doctoral (RED): Fall 2024

Content

This is an advanced course in microeconomic theory. It provides a extensive introduction to the major topics of microeconomics from consumer and producer theory to general equilibrium under uncertainty, passing through the theory of rational choice under risk and uncertainty.

Objectives

Students will acquire foundational methods and theories in microeconomics, learning the essential tools and concepts to understand advanced research papers at the forefront of microeconomic theory. While the course may not cover all topics at the cutting edge of microeconomic theory, it will provide students with the necessary knowledge to read frontier papers, enabling them to gain insights into most areas of microeconomics.

Program

1. Consumer theory: Preference and choice. Budget constraint and optimal consumption. Demand and comparative statics. The weak axion of revealed preferences. The utility maximization program. The expenditure minimization program. Demand, indirect utility and expenditure. Welfare evaluation of economic changes. **2. Production theory:** Production sets. Profit maximization and cost minimization. The geometry of costs. Efficient production. A digression on the linear activity model. **3. Choice under uncertainty:** Risk and preferences. Expected Utility Theorem. Money lotteries and risk aversion. Comparison of payoff distributions in terms of returns and risk. Subjective probabilities. An introduction to ambiguity aversion. **4. Competitive equilibrium and its basic welfare properties:** Markets and prices. Welfare Theorems. Pareto optima and social welfare optima. First-order conditions for Pareto optimality. An elementary proof of existence. Applications. **5. Competitive equilibrium under uncertainty:** Markets for contingent commodities. Arrow-Debreu equilibrium. Sequential trade. Asset markets and the no arbitrage theorem. Sequential trade and incomplete markets. Imperfect information.

References

A. Mas-Colell, M.D. Whinston and J.R. Green, *Microeconomic Theory*, Oxford University Press, 1995 (Chapters 1, 2, 3, 5, 6, 16, 19, Mathematical Appendix).
Additional material will be provided during classes.

Teaching method

Conventional lectures (36 hours).

Exam

Weekly assignments (40%).
Final written (closed-book) exam (60%).