

Econ 742: Topics in Microeconomic Theory

Course Outline

SOE, SMU
2025-2026 Term 1
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Course Objectives

The first part of the course seeks to provide an introduction to Implementation Theory and Mechanism Design. The course will begin by focussing on the complete information model and study Nash Implementation. Subsequently, the course will focus on incomplete information environments and study Dominant strategy implementable social choice functions in various restricted domain settings which include models with quasi-linear utilities and auction settings. The course will summarize new developments in the study of deterministic and random social choice functions.

The second part of the course will provide an introduction to general equilibrium with complete and incomplete markets. The notions of Arrow Debreu equilibrium, Radner equilibria, Temporary equilibrium and their existence, determinacy and efficiency properites will be studied.

Course Requirements

The course grade will be determined by class participation (30%) and an in class presentations (70%) of some selected papers and exercises.

Course Readings

There is no text book for the course. Different papers will be referred to at various points and assigned as readings. Some of these are listed below.

1. "Notes on optimality of rational expectations equilibrium with incomplete markets", Bhattacharya, G., *Journal of Economic Theory*, 42 (1987), 191-208.
2. "Arrow on domain conditions: a fruitful road to travel", Barbera, Berga and Moreno, *Social Choice and Welfare*, 54, 237-258
3. "Rationalizable implementation", Bergemann, Morris and Tercieux, *Journal of Economic Theory*, 146, (2011), 1253-1274.
4. "Decentralizability of efficient allocations with heterogenous forecasts", Chatterji, S. and A. Kajii, *Working papers on Central bank communication*, 016, March 2021.
5. "Implementation in undominated strategies: a look at bounded mechanisms", Jackson, M., *Review of Economic Studies*, 59, (1992), 757-775.

6. “Social choice with non-quasi linear utilities”, Ma, Meir, Parkes, *arXiv:1804.02268v2*, April 2018.
7. “On strategy-space reduction in Maskin’s theorem: sufficient conditions for Nash implementation”, T. Saijo, *Econometrica*, 56, (1988), 693-700.