Economics 816: Topics in Advanced Microeconomic Theory

Overview. This is an advanced course in microeconomic theory, with a main focus on mechanism design/auction theory and advanced decision theory. This course is intended for students who are interested in theory or who want a good theory background to do applied work. The course will cover a combination of standard results on mechanism design, auctions, decision making under uncertainty, and some other research topics in microeconomic theory.

Textbooks:


Grading. Your course grade will be based on several homework assignments (50%) and presentations (50%).

Outline of Topics (tentative)

1. Introduction to Market Design and Auction Theory

   Milgrom (2004), Ch. 1

2. Mechanism Design Basics, Vickrey Auction and VCG Mechanism

   Mas-Colell, A., M. Whinston, and J. Green, Microeconomic Theory, Oxford University Press, Ch. 23

   Milgrom (2004), Ch. 2


3. The Envelope Theorem and Payoff Equivalence

Milgrom (2004), Ch. 3


4. The Constraint Simplification Theorem and Revenue Differences

Milgrom (2004), Ch. 4
Avery, Christopher (1998): “Strategic Jump Bidding in English Auctions,”


Griesmer, Levitan and Shubik (1967): “Toward a Study of Bidding Processes,
Part IV: Games with Unknown Costs,” *Naval Research Logistics Quarterly* 14(4):
415-443.


Maskin, Eric and John Riley (2000): “Asymmetric Auctions,” *Review of


5. Auctions with Interdependent Valuations

Milgrom (2004), Ch. 5


Strategy Equilibria in Games of Incomplete Information,” *Econometrica* 69(4):
861-890.

Bulow, Jeremy, Ming Huang, and Paul Klemperer (2002): “Toeholds and


6. Auctions in Context:

Milgrom (2004), Ch. 6


7. Multi-Unit Auctions
Milgrom (2004), Ch. 7, 8


8. Uncertainty in Economic Theory -- Applications


