Econ 7050: Ph.D. Advanced Economic Theory

FALL 2007

Syllabus

Anna Rubinchik

Assistant Professor
Office location: Econ 121
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Class time: Monday, Wednesday 1:30 -- 2:45 pm
Location: Econ 5

Course description.
This is the third course in Microeconomic Theory for Ph.D. students in a three semester sequence. The goal is to understand core results in general equilibrium theory and the theory of incentives and to be able to apply them.

Reading	Grading	Course Outline

HW Assignments

Homework assignment	Due date	Solutions
Please, click here to download #1	Monday, September 17	Here they are
Please, click here to download #2	Wednesday, October 3	To the first two questions
Please, click here to download #3	Monday, October 22	Are ready
Please, click here to download #4	Monday, November 5	#4
Please, click here to download #5	Wednesday, November 28	#5

Reading

Required texts

1. Patrick Bolton and Mathias Dewatripont *Contract Theory,* The MIT PRESS, 2005. (BD)
2. Gerard Debreu *Theory of value–an axiomatic analysis of economic equilibrium*, New Haven: Yale University Press, 1959 .
3. Geoffrey A. Jehle and Philip Reny "Advanced Microeconomic Theory", Addison Wesley, 2001 (JR)
4. Andreu Mas-Colell, Michael D. Whinston and Jerry R.Green *Microeconomic Theory* , Oxford University Press, 1995. (MWG)

Strongly Recommended Texts

1. A. N. Kolmogorov, S. V. Fomin *Introductory Real Analysis,* Dover, New York, 1975. (KF)
2. Ross M. Starr *General Equilibrium Theory, An Introduction,* Cambridge University Press, 1997 (S)

Optional Texts

1. D. M. Kreps *Notes of the Theory of Choice,* Underground Classics in Economics, Westveiw Press, Boulder and London, 1988 (K)

2. T. Parthasarathy, *On Global Univalence Theorems: Lecture Notes in Mathematics* , Springer Verlag, 1983

Papers

1. Kenneth J. Arrow; Gerard Debreu Existence of an Equilibrium for a Competitive Economy, *Econometrica*, Vol. 22, No. 3. (Jul., 1954), pp. 265-290.
2. Philip Reny " ***Arrow's Theorem and the Gibbard-Satterthwaite Theorem: A Unified Approach***"
3. Jean-Jacques Laffont and Eric Maskin *"The Theory of Incentives: An Overview,"* in W. Hildenbrand (ed.), Advances in Economic Theory, Cambridge University Press, 1982, pp.31-94.
4. Matthew Rabin "Risk Aversion and Expected-Utility Theory: A Calibration Theorem " *Econometrica*, Vol. 68, No. 5 (Sep., 2000), pp. 1281-1292
5. James C. Cox and Vjollca Sadiraj "*Risk Aversion and Expected Utility Theory: Coherence for Small- and Large-Stakes Gambles*" 2002
6. Jerry Green "Making Book Against Oneself The Independence Axiom, and Nonlinear Utility Theory," *The Quarterly Journal of Economics*, Vol. 102, No. 4 (Nov., 1987), pp. 785-796
7. Abraham Wald On Some Systems of Equations of Mathematical Economics, *Econometrica*, Vol. 19, No. 4. (Oct., 1951), pp. 368-403.

Grading Policy

Homework assignments 10%
Midterm 40%
Final exam 50%

Students are encouraged to form study groups and discuss homework assignments, but they should write and submit their own (original) work.
As for the exams, any form of collaboration is prohibited.
The midterm will be conducted in class.

Students with documented disabilities who may need academic accommodations should speak with the professor during first two weeks of the class (no later than September 7). Please, see also the Coordinator of Services to students with disabilities in the Disability Services Office, Willard 322 (phone 303-492-8671), so that such accommodations may be arranged.

Course Outline

Part 1: General Equilibrium Theory

Weeks 1, 2	Pure Exchange Economy. Welfare Theorems. Existence of Equilibria.	MWG 15.B, 17.B, 17.C. Our notes from Sept 10.
Weeks 3,4	Competitive Equilibrium and the Fundamental Theorems of Welfare Economics	MWG 16
Weeks 5,6	Expected Utility Theory (EUT). Risk Aversion.	MWG 6.B., 6.C., K

Midterm: Monday, October 8.

Part 2: Decision Making under Uncertainty and its Applications

Weeks 7, 8	General Equilibrium Under Uncertainty. The Arrow-Debreu Economy.	MWG 19.A.-D.
Week 9	Exchange Under Asymmetric Information. Introduction to the theory of Contracts	BD 1
Weeks 10-12	Principal-Agent problems. Static Bilateral Contracting. Hidden Information Hidden Action	Notes BD 2,3; MWG 14.C BD 4; MWG 14.B

Week 13	Multilateral Contracting. Auctions.	BD 7.2, 7.3.
Weeks 14-16	Incentives and Mechanism Design The Gibbard-Satterthwaite Theorem	MWG 23.B, 23.C [PPT slides (introduction)](#) [Notes](#)

FINAL EXAM is on Monday, December 17, 1:30 a.m. -4 p.m.