Instructor:
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Dates: July 18 - 22, 2016, Monday-Friday, 3½ hour lectures every day

Course Description

The mini-course will provide an overview of some recent research and policy work on matching markets. The focus of the course is the evolution of the literature both from a theoretical and also practical perspective. Topics include two-sided matching, house allocation, school choice, kidney exchange, matching with contracts, and cadet branching.

Course Outline

1. House Allocation & Housing Markets

Sönmez and Ünver (2011), Matching, Allocation, and Exchange of Discrete Resources", J. Benhabib, A. Bisin, and M. Jackson (eds.) Handbook of Social Economics, Elsevier, 2011, Chapter 2 (background reading).

Shapley and Scarf (1974), On cores and indivisibility," Journal of Mathematical Economics 1, 23-28.

Roth and Postlewaite (1977), Weak versus strong domination in a market with indivisible goods, Journal of Mathematical Economics 4, 131-137.

Hylland and Zeckhauser (1977) The eficient allocation of individuals to positions." Journal of Political Economy 87, 293-314.

Roth (1982), Incentive compatibility in a market with indivisible goods," Economics Letters 9, 127-132.

Abdulkadiroğlu and Sönmez (1998), Random serial dictatorship and the core from random endowments in house allocation problems," Econometrica 66, 689-701.

Abdulkadiroğlu and Sönmez (1999), House allocation with existing tenants," Journal of Economic Theory 88, 233-260.1

Sönmez and Ünver (2005) House Allocation with Existing Tenants: An Equivalence," Games and Economic Behavior 52, 153-185.

Pycia and Ünver (2016) Incentive Compatible Allocation of Discrete Resources, Theoretical Economics, forthcoming

Bogomolnaia and Moulin (2001) A New Solution to the Assignment Problem, Journal of Economic Theory

2. Kidney Exchange

Sönmez and Ünver (2011), Matching, Allocation, and Exchange of Discrete Resources", J. Benhabib, A. Bisin, and M. Jackson (eds.) Handbook of Social Economics, Elsevier, 2011, Chapter 3,(background reading.)

Sönmez and Ünver (2014), Market Design for Kidney Exchange Mechanisms, Z. Neeman, A. Roth, N. Vurkan (eds), Handbook of Market Design, Oxford University Press

Roth, Sönmez and Ünver (2004), Kidney Exchange," Quarterly Journal of Economics 119, 457-488.

Roth, Sönmez and Ünver (2005), Pairwise Kidney Exchange,"Journal of Economic Theory, 125, 151-188.

Roth, Sönmez and Ünver (2007), Eficient Kidney Exchange: Coincidence of Wants in Markets with Compatibility-Based Preferences," American Economic Review, 97-3: 828-851.

Ünver (2010), Dynamic Kidney Exchange," Review of Economic Studies, 77 (1): 372-414.

Sönmez and Ünver (2011), Altruistically Unbalanced Kidney Exchange,"Boston College working paper.

3. School Matching

Two-Sided Matching: A Study in Game-Theoretic Modeling and Analysis, by A.E. Roth and M.A.O. Sotomayor, Cambridge University Press, 1990, Chapters 2, 3 and 5, (background reading.)

Sönmez and Ünver (2011), Matching, Allocation, and Exchange of Discrete Resources", J. Benhabib, A. Bisin, and M. Jackson (eds.) Handbook of Social Economics, Elsevier, 2011, Chapter 4, (background reading.)

Gale and Shapley (1962), College Admissions and the Stability of Marriage," American Mathematical Monthly, 69, 915.

Balinski and Sönmez (1999), A Tale of Two Mechanisms: Student Placement," Journal of Economic Theory 84, 73-94.

Abdulkadiroğlu and Sönmez (2003), School choice: A mechanism design approach, American Economic Review 93, 729-747.

Ergin and Sönmez (2006), Games of School Choice under the Boston Mechanism," Journal of Public Economics, 90, 215-237.

Pathak and Sönmez (2008), Leveling the Playing Field: Sincere and Strategic Players in the Boston Mechanism" American Economic Review, 98(4), 1636-52.

Kesten (2010), School Choice with Consent," Quarterly Journal of Economics, 125(3), 1297-1348.

Pathak and Sönmez (2011), School Admissions Reform in Chicago and England: Comparing Mechanisms by their Vulnerability to Manipulation," American Economic Review, forthcoming.

4. Cadet-Branch Matching

Kelso and Crawford (1982) Job Matching, Coalition Formation, and Gross Substitutes", Econometrica, 50, 1483-1504, (background reading.)

Hatfield and Milgrom (2005), Auctions, Matching and the Law of Aggregate Demand," American Economic Review, 95, 913-935, (background reading.)

Hatfield and Kojima (2010), Substitutes and Stability for Matching with Contracts," Journal of Economic Theory, 145, 1704-1723.

Echenique (2011), Contracts vs. Salaries in Matching," American Economic Review, 102 (1), 594-601.

Sönmez and Switzer (2011), Matching with (Branch-of-Choice) Contracts at United States Military Academy," Boston College working paper.

Sönmez (2011), Bidding for Priorities: Improving ROTC Branching Mechanism," Boston College working paper.