

ECON6120Q

Topics in Economic Design

Overview

This is a seminar-style course dedicated to *economic design*, an area of research that has been actively generating important results that matter not only to economic theory but also to a wide range of applications. In addition to introducing the students to various topics of economic design, the course is also meant to be an opportunity for the student to hone their research skills. By completing the course, the students will have some training in reading and discussing academic papers, making presentations, finding research ideas, and developing ideas into viable projects.

Prerequisites

The students are expected to be familiar with game theory and have some basic understanding of mechanism design. Completion of the first-year PhD microeconomics sequence is sufficient.

Grading

Participation 25%

Presentation 25%

Project 50%

Topics

Market design overall

- “The Economist as Engineer: Game Theory, Experimentation, and Computation as Tools for Design Economics.” Roth (2002), *Econometrica*.

- “Matching Markets: Theory and Practice.” Abdulkadiroglu and Sonmez (2013), *Advances in Economics and Econometrics*.
- “Marketplaces, Markets, and Market Design.” Roth (2018), *American Economic Review*.
- “Recent Developments in Matching Theory and its Practical Applications.” Kojima (2017), *Advances in Economics and Econometrics*.

School choice and college admissions

- “School Choice: A Mechanism Design Approach.” Abdulkadiroglu and Sonmez (2003), *American Economic Review*.
- “Chinese College Admissions and School Choice Reforms: A Theoretical Analysis.” Chen and Kesten (2017), *Journal of Political Economy*.
- “Chinese College Admissions and School Choice Reforms: An Experimental Study.” Chen and Kesten (2019), *Games and Economic Behavior*.
- “Gaming the Boston School Mechanism in Beijing.” He (2017), manuscript.

Job markets

- “The Evolution of the Labor Market for Medical Interns and Residents: A Case Study in Game Theory.” Roth (1984), *Journal of Political Economy*.
- “The Job Market for New Economists: A Market Design Perspective.” Coles et al. (2010), *Journal of Economic Perspectives*.
- “Can the Job Market for Economists be Improved?” Bandyopadhyay et al. (2011), *Handbook of Market Design*.

Kidney exchange

- “Kidney Exchange.” Roth, Sonmez and Unver (2004), *Quarterly Journal of Economics*.
- “Efficient Kidney Exchange: Coincidence of Wants in Markets with Compatibility-Based Preferences.” Roth, Sonmez and Unver (2007), *American Economic Review*.

“New” markets

- “Peer-to-peer Markets.” Einav, Farronato, and Levin (2015), manuscript.
- “Bitcoin: a Peer-to-peer Cash System.” Nakamoto (2008), manuscript.
- “Thickness and Information in Dynamic Matching Markets.” Akbarpour, Li and Gharan, *Journal of Political Economy*.
- “The Efficiency of A Dynamic Decentralized Two-sided Matching Market.” Liu, Wan and Yang (2019), manuscript.

- “Carpooling and the Economics of Self-Driving Cars.” Ostrovsky and Schwarz (2018), manuscript.

Ethics and markets

- “Repugnance as a Constraint on Markets.” Roth (2007), *Journal of Economic Perspectives*.
- “Ethics and Market Design.” Li (2017), manuscript.
- “The Normative Gap: Mechanism Design and Ideal Theories of Justice.” Hitzig (2020), *Economics and Philosophy*.

References

Some useful books for reference include:

Who Gets What, and Why, Roth

Two-Sided Matching, Roth and Sotomayor

An Introduction to the Theory of Mechanism Design, Börgers