

EXPERIMENTAL ECONOMICS (ECON3020) -- Spring 2010

Course Description

- This is a course for undergraduate students in economics. Given the recent growth of interest in behavioral considerations, experiments are increasingly used in economics to study human behavior. Students will learn how to design experiments and interpret their results and will also overview some of the most important existing results.
- Basic knowledge of microeconomics and game theory is expected.
- One of the focuses is on performing and engaging in experiments. Students will be expected to design their own experiments and prepare to run them. Specifically, students will be grouped into teams who will collaborate to design an experiment, write an instruction, and discuss design and instructions in some of tutorial classes.

Lectures and Tutorial Classes

- Lectures: 11 am ~ 1 pm every Monday, room 128. An office hour will be held by appointment.
- There will be four tutorial classes on Mondays (Jan.26, Feb. 9, Mar. 2 and Mar. 16), which will be run by our TA.

Contact Information

- Lecturer: Syngjoo Choi (room 111, syngjoo.choi@ucl.ac.uk)
- TA: Andrea Locatelli (loc.andrea@gmail.com)

Requirements

- In the first three tutorials, the class teacher will go over problem sets that will be handed out a week before. Students will need to work out each problem set and submit their homework to the class teacher before tutorials.
- Students will form groups of four people who work together to develop research questions and design experiments to answer them. Group formation will need to be reported to the TA by Feb. 12 (Friday). At the last tutorial class and lecture, each team will have 15 to 20 minutes of presentation of its experimental design. Each team will submit an essay of 5 – 10 pages about their own experimental design to the TA by March 15 (Monday).

Course Materials

Required Book

- Holt, Charles. *Markets, Games, & Strategic Behavior*. Pearson/Addison-Wesley, 2006.

Additional Books

- Kagel, John and Alvin Roth. *The Handbook of Experimental Economics*. Princeton University Press, 1995.
- Friedman, Daniel and Shyam Sunder. *Experimental Methods: A Primer for Economists*. Cambridge University Press, 1994.

- Camerer, Colin. *Behavioral Game Theory: Experiments in Strategic Interaction*. Princeton University Press, 2002.
 - Bardsley, Nicholas, Robin Cubitt, Graham Loomes, Peter Moffatt, Chris Starmer, and Robert Sugden. *Experimental Economics: Rethinking the Rules*. Princeton University Press, 2009.
- Relevant articles are listed below for each lecture and further readings may be provided later.
 - Lecture notes and exercises will be also available on the teaching webpage, <http://www.homepages.ucl.ac.uk/~uctpsc0/Teaching/ECON3020.html>.

Examination Format

Two-hour unseen exam with three compulsory questions and a choice of one out of three.

Course Outline

Week 1 – Introduction to experimental economics

Readings

1. Holt, Chapters 1, 2 and 8; Kagel and Roth, Chapter 1.I and 1.II; Friedman and Sunder, Chapters 1-3.
2. Smith, Vernon L. (1976), “Experimental Economics: Induced Value Theory,” *American Economic Review*, 66, 274-279.
3. Smith, Vernon L. (1994), “Economics in the Laboratory,” *Journal of Economic Perspectives*, 8, 113-131.
4. Smith, Vernon L. (1962), “An Experimental Study of Competitive Market Behavior,” *Journal of Political Economy*, 70, 111-137.

Week 2 – Individual preferences: uncertainty and time

Readings

1. Holt, Chapters 4 and 28; Kagel and Roth, Chapter 8.
2. Holt, C. and S. Laury (2002), “Risk Aversion and Incentive Effects,” *American Economic Review*, 92(5), 1644-1655.
3. Choi, S., R. Fisman, D. Gale and S. Kariv (2007), “Consistency and Heterogeneity of Individual Behavior under Uncertainty,” *American Economic Review*, 97(5), 1921-1938.
4. Frederick, S., G. Loewenstein, and T. O’Donoghue (2002), “Time Discounting and Time Preference: A Critical Review,” *Journal of Economic Literature*, XL, 351-401.

Week 3 – Introduction to experiments on game theory

Readings

1. Holt, Chapter 3; Camerer, Chapter 1.

- Cooper, R., D. DeJong, R. Forsythe and T. Ross, "Cooperation without Reputation: Experimental Evidence from Prisoner's Dilemma Games," *Games and Economic Behavior*, 12, 1996, 187-218
- Nagel, R. (1995), "Unraveling in Guessing Games: An Experimental Study," *American Economic Review*, 85, 1313-1326.

Week 4 – Bargaining and social preferences

Readings

- Holt, Chapters 12 and 13
- Forsythe, R., R. Myerson, T. Rietz and R. Weber (1988), "Fairness in Simple Bargaining Games," *Games and Economic Behavior*, 6, 347-369.
- Andreoni, J. and J. Miller (2002), "Giving According to GARP: An Experimental Test of the Consistency of Preferences and Altruism," *Econometrica*, 70, 737-753.
- Berg, J., J. Dickhaut and K. McCabe (1995), "Trust, Reciprocity, and Social History," *Games and Economic Behavior*, 10, 122-142.

Week 5 – Coordination and public goods

Readings

- Holt, Chapters 14, 15, and 26; Kagel and Roth, Chapter 2; Camerer, Chapter 7.
- Van Huyck, J., R. Battalio, and R. Beil (1990), "Tacit Coordination Games, Strategic Uncertainty, and Coordination Failure," *American Economic Review*, 80, 234-248.
- Choi, S., D. Gale, S. Kariv, and T. Palfrey (2008), "Network Architecture, Salience and Coordination," *Mimeo*.
- Crawford, V., U. Gneezy, and Y. Rottenstreich (2008), "[The Power of Focal Points in Limited: Even Minute Payoff Asymmetry May Yield Large Coordination Failures](#)," *American Economic Review*, in press.

Week 6 – More experiments on game theory

Readings

- Holt, Chapters 5, 23, 24, and 25; Camerer, Chapter 5.
- Goeree, J. and C. Holt (2001), "Ten Little Treasures of Game Theory, and Ten Intuitive Contradictions," *American Economic Review*, 90(5), 1402-1422.
- McKelvey, R. and T. Palfrey (1992), "An Experimental Study of the Centipede Game," *Econometrica*, 60, 803-836.
- Crawford, V., M. Costa-Gomes, and B. Broseta (2001), "Cognition and Behavior in Normal-Form Games: An Experimental Study," *Econometrica*, 69, 1193-1235.

Week 7 – Auctions

Readings

- Holt, Chapters 19 and 21; Kagel and Roth, Chapter 7.

Week 8 – Information and Learning

Readings

1. Holt, Chapters 30 and 31.
2. Anderson, L. and C. Holt, “Information Cascades in the Laboratory,” *American Economic Review*, 87, 847-862.

Week 9 – Field Experiments

Week 10 – Student Presentations