COURSE SYLLABUS FOR ECONOMICS 9340
EXPERIMENTAL ECONOMICS
PROFESSOR JAMES C. COX
Fall 2019

This course is a research class in experimental and behavioral economics that is intended to:

- expose you to a varied set of experimental economics research papers
- guide you to think about economics from the perspective of an empirical science
- provide you with a working knowledge of techniques for conducting experiments in economics
- help you to design your own experiment(s)
- support work on your dissertation

Prerequisite

The prerequisite for this course is Econ 9030 or equivalent microeconomics class or permission of the instructor.

Course Requirements

There are three graded course requirements, each worth 1/3 of the grade:

1. a midterm exam
2. a research paper due on the last class day of the semester
3. a final exam

A fourth, ungraded requirement is presentation of your research paper to the class.

Class Scheduling

The class will meet on Tuesdays and Thursdays 11:00a.m. – 12:15 p.m. On days when we are conducting in-class experiments, we will meet in the Experimental Economics Laboratory, room 447 of the Andrew Young School of Policy Studies building.

No student is required to participate in the learning experiments. Any student not wishing to participate in an experiment can request an alternative assignment consisting of reading professional journal articles on relevant topics.

Office Hours and Contact Information

The instructor's office is room 456 of the AYSPS building, 14 Marietta Street. His office hours are 1:00 p.m. – 3:00 p.m. on Tuesdays and Thursdays and other times by appointment made in class or by sending e-mail to jccox@gsu.edu.

Introductory Reading List

Adobe (pdf) files for the following assigned readings will be available on the instructor's home page: http://excen.gsu.edu/jccox. You will need Adobe Reader to print the files. If your computer does not already have Adobe Reader, you can download it for free from the Internet. Additional readings will be assigned, based on students' topic interests.

1. V. Smith, "Markets as Economizers of Information: Experimental Examination of the Hayek Hypothesis," *Economic Inquiry*, vol. 20, 1982, pp. 165-179.

2. J. Cox, M. Rider, and A. Sen, "Tax Incidence: Do Institutions Matter? Experimental Evidence," *Public Finance Review*, vol. 46, 2018, pp. 899-925.

3. V. Smith, "An Empirical Study of Decentralized Institutions of Monopoly Restraint," pp. 83-106 in G. Horwich and J. Quirk (eds.), *Essays in Contemporary Fields of Economics*. West Lafayette: Purdue University Press, 1981.

4. V. Smith, "Theory, Experiment, and Economics," *Journal of Economic Perspectives*, vol. 3, 1989, pp. 151-169.

5. J. Cox and V. Sadiraj, "Incentives," Chapter 1 in *Handbook of Research Methods and Applications in Experimental Economics*, Arthur Schram and Aljaž Ule (eds.), Edward Elgar Publishing, 2019.

6. J. Cox, B. Roberson, and V. Smith, "Theory and Behavior of Single Object Auctions," pp. 1- 43 in V. Smith (ed.), *Research in Experimental Economics*, vol. 2. Greenwich: JAI Press, 1982.

7. J. Cox and D. James, "Clocks and Trees: Isomorphic Dutch Auctions and Centipede Games," *Econometrica*, vol. 80, 2012, pp. 883–903.

8. R. Forsythe, T. Palfrey, and C. Plott, "Asset Valuation in an Experimental Market," *Econometrica*, vol. 50, 1982, pp. 537-567.

9. J. Cox and R. Oaxaca, "Laboratory Experiments with a Finite Horizon Job Search Model," *Journal of Risk and Uncertainty*, vol. 2, 1989, pp. 301-350.

10. J. Cox, "How to Identify Trust and Reciprocity," *Games and Economic Behavior*, vol. 46, 2004, pp. 260-281.

11. J. Cox and C. Deck, "On the Nature of Reciprocal Motives," *Economic Inquiry*, vol. 43, 2005, pp. 623-635.

12. J. Cox and W. Orman, "Trust and Trustworthiness of Immigrants and Native-Born Americans," *Journal of Behavioral and Experimental Economics*, 57, August 2015, 1-8.

13. J. Cox, V. Sadiraj and U. Sen, "Cultural Identities and Resolution of Social Dilemmas," *Economic Inquiry*, forthcoming (in press).

14. J. Cox, D. Friedman, and V. Sadiraj, "Revealed Altruism," *Econometrica*, vol. 76, 2008, pp. 31–69.

15. R. M. Isaac and J. Walker, "Group Size Effects in Public Goods Provision: The Voluntary Contributions Mechanism," *Quarterly Journal of Economics*, vol. 103, 1988, pp. 179-199.

16. J. Cox, E. Ostrom, V. Sadiraj, and J. Walker, "Provision versus Appropriation in Symmetric and Asymmetric Social Dilemmas," *Southern Economic Journal*, vol. 79, 2013, 496-512.

17. J. List, "On the Interpretation of Giving in Dictator Games," *Journal of Political Economy*, vol. 115, 2007, 482-493.

18. J. Cox, J. List, M., Price, V. Sadiraj, and A. Samek, "Moral Costs and Rational Choice: Theory and Experimental Evidence," Experimental Economics Center Working Paper 2019-2.

19. D. Grether and C. Plott, "Economic Theory of Choice and the Preference Reversal Phenomenon," *American Economic Review*, vol. 69, 1979, pp. 623-638.

20. J. Cox and D. Grether, "The Preference Reversal Phenomenon: Response Mode, Markets and Incentives," *Economic Theory*, vol. 7, 1996, pp. 381-405.

21. C. Holt and S. Laury, "Risk Aversion and Incentive Effects," *American Economic Review*, vol. 92, 2002, pp. 1644-1655.

22. J. Cox, V. Sadiraj, and U. Schmidt, "Paradoxes and Mechanisms for Choice under Risk," *Experimental Economics*, 18(2), 2015, 215-250.

23. J. Cox, V. Sadiraj, B. Vogt, and U. Dasgupta, "Is There A Plausible Theory for Decision under Risk? A Dual Calibration Critique," *Economic Theory*, 54 (2), 2013, 305-333.

24. J. Cox, "On Testing the Utility Hypothesis," *Economic Journal*, vol. 107, 1997, pp. 1054-1078.

25. J. Cox, V. Sadiraj, K. Schnier, and J. Sweeney, "Higher Quality and Lower Cost from Improving Hospital Discharge Decision Making," *Journal of Economic Behavior and Organization*, 131, part B, 2016, 1-16.

26. J. Cox, D. Kreisman, and S. Dynarski, "Designed to Fail: Effects of the Default Option and Information Complexity on Student Loan Repayment," Experimental Economics Center Working Paper 2018-04.

Additional Readings

Additional journal articles that are germane to the students' chosen term paper topics may be assigned.

Learning Outcomes

By the end of the semester, a student should be able to:

A. Write a term paper containing an original experimental design; and

B. Be able to answer questions of the following type.

1. Identify the primary reasons for conducting economics experiments and provide illustrative examples from the literature.

2. Explain the features of a good experimental design and be able to identify strengths and weaknesses of specific designs.

3. Explain the Hayek hypothesis and alternative hypotheses about competitive markets that have been accepted (and taught to students) by many economists and explain what experiments tell us about the empirical validity of these hypotheses.

4. Explain what experiments tell us about the compatibility of textbook monopoly pricing with buying and selling through various market institutions, which market institution is most compatible with textbook monopoly pricing and why this market institution has this property. Explain the comparative efficiency properties of various market institutions when there is a single seller.

5. Define "market institution." Define "economic environment." Explain how to decide what to control and what not to control in designing an experiment and provide examples.

6. Explain "revenue equivalence" and "isomorphism" in auction theory. Explain how to design an experiment to test for revenue equivalence and isomorphism and what has been learned from such a test.

7. Explain the rational expectations hypothesis, how a simple experiment can be designed for testing the hypothesis and what has been learned from such a test.

8. Explain the preference reversal phenomenon, how experiments can be designed to test for preference reversals and what has been learned from such tests.

9. Explain the voluntary contributions mechanism (VCM) for public goods allocation. Explain the design of some experiments with VCM and what the experiments reveal about its properties.

10. Define (a) other–regarding preferences, (b) trust, and (c) reciprocity. Explain how an experiment can be designed to test for (a) – (c) and known results from such an experiment.

11. Explain "single blind" payoffs and "double blind" payoffs. Explain why an experimenter might use one type or the other. Provide examples.

12. Explain public good game and common pool game. Explain how they can be constructed in pairs that are payoff equivalent and what one can learn from experiments with such pairs of games.

13. Explain the revealed preference relation and what it means for a utility function to rationalize a set of price and quantity vectors for a consumer's purchases. Explain how one can conduct a simple test of the utility hypothesis, why most sources of consumer data are not usable for such a test, how a valid test can be conducted and what has been learned from such a test.

14. Explain what is known about incentive compatibility of payoff mechanisms and the behavioral properties of the mechanisms.

15. How does observed behavior in dictator game experiments compare when the feasible set includes: (a) opportunities to give or take; or (b) opportunities only to give or choose zero? What

are the implications of such behavior for convex preference theory and rational choice theory? Explain.

16. Explain the structure of theories of dynamic choice such as job search games. Explain how an experiment can be designed to test such theories and what has been learned from the results.

17. How does observed behavior in dynamic games such as Dutch auctions and centipede games depend on institutional format? What are implications of such dependence for theoretical modeling of play in the games?