

16:220:549: Experimental Economics
Rutgers University-New Brunswick
Department of Economics
Fall Semester 2017
105 New Jersey Hall, 1:10-2:30 pm Tuesday and Thursday
Professor Barry Sopher

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Office Hours: 2:30-3:30 Tuesday, 11:00-12:00 Wed. and by arrangement.

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The purpose of this course is to help you begin doing actual research (i.e., writing and publishing papers) in experimental economics. There are two specific objectives that I have for the course. The first is to introduce you to the history, methodology and main research programs in the field of experimental economics through close reading of books and journal articles. The second is for you to design an original research project that applies the principles of experimental laboratory science to economics. You will be evaluated on both objectives in various ways over the course of the semester, but the main evaluation will be based upon an exam given in the regular final exam period (Dec. 18, 12 noon-3pm), for the first objective, and your write-up about your research project, which will be due on the last day of class (Dec. 12). Each of these will count for 40% of the final grade for the course. An in-class presentation on an article from the reading list and a presentation of your research project will each count for 10% of your final grade. It goes without saying that you will normally be in class, even if you are not scheduled for a presentation.

The field of experimental economics, as I conceive of it, is intimately connected to the field of economic theory, and we will be primarily concerned with the role that experimentation plays in the development and refinement of economic theory. The final exam will serve as, essentially, a field exam, and the expectation is that you will have read broadly and deeply in the field, guided by my lectures and the reading list, though not limited by these things. You will be expected to express knowledge and understanding of what has come before, but also to exhibit a point of view and some original thinking on what the field is about and where it might go.

The design of an original research project will require you to become a true expert on some subject. It is more important that you identify a research question that is worthy of the effort involved in running an experiment than that the question already have been addressed by experimental methods. This is not an assignment to be completed in a rush

at the last minute. A good paper could be the foundation for a thesis essay, a publishable paper, or both.

You will do two presentations in the course of the semester. The first will be from the reading list and will normally be on a topic of interest to you, but it need not be directly related to your research project (though it may be). Your second presentation, toward the end of the semester, will be an in-depth presentation about your research project. This will normally be much more a work-in-progress sort of presentation, as you will not be at the end of your work yet. This presentation will include discussion of background motivation, details of experimental design, data results (if there are any yet), expected findings, etc.

Regular class attendance is expected and is an important component of the course. We will be conducting a semester-long discussion, not just working in isolation on our own projects, and we can learn from each other.

Organization of Classes by Topic Area:

Weeks 1-3: Introduction, History and Methodology of Experimental Economics

Weeks 4-7: Individual Decision Making—Decision Making, Uncertainty, Ambiguity, Time, Planning

Weeks 8-11: Group or Interactive Decision Making

Weeks 12-14: Final project presentations

Dec. 12: Final Paper Due

Dec. 18: Final exam

The starting point for each major section of the course will be reading from a book that I have selected for the area of study. These are the books:

1. *The Social Epistemology of Experimental Economics*, by Ana Cordeiro dos Santos, Routledge, 2010.
2. *Rational Decisions*, by Ken Binmore, Princeton University Press, 2009.
3. *Evolutionary Games and Equilibrium Selection*, by Larry Samuelson, MIT Press, 1997.

I will also include specific readings of journal articles from the reading list. These articles are under Resources on the Sakai site for the class. The readings are organized by topic, and should be thought of as a starting point for reading in the area. Some folders have quite a few papers, others only

three or four. Typically the papers are foundational or influential papers, at some level, in the sense that other researchers have followed up on the paradigm or design introduced in the paper, and the papers are still being cited today. Especially for your own topic of research, you are going to have to search a good deal deeper and come up with a more comprehensive set of articles to read as “deep background” for your research project.

Your research project can be on any topic, whether on the reading list or not, but in any case should be approved by me in advance. If you already have ideas of what you would like to do for your project, great. Even if you have only the vaguest of notions of what you would like to do, that is a beginning. I would like to hear from everyone at an early stage of the semester so that, if possible, you can get an early start on your project. This is especially useful if you would like to have the option of using your class paper as the basis for a Second Year Research paper in economics or an MA thesis essay. It is possible, for a well-developed project, to conduct an actual experiment in the lab in the course of the semester, but it is a challenge. More typically, promising projects will be ready to run in the lab only in the spring semester, simply because it takes a long time to get everything worked out, to do the necessary bureaucratic paperwork (for human subjects approval), to have a program ready to run, etc. But it is possible. It is really up to you. But the basic requirement, for purposes of satisfactorily completing the course, is to have a well developed project with basically everything done except the actual data collection. Even then, you will ideally have some rough data from a “dry run” of the experiment, using the class members and your friends as the decision makers in the experiment. The final paper, with all your background literature discussion, motivation for your particular experimental design, the details of the design, and some suggestive results based on the dry run mentioned above, but possibly some hard data, will be due on the last day of class, which is Tuesday, December 12. Your work must be written up in standard scholarly format and presented as a paper (approximately 20 pages in length). Promising projects can be followed up on after the class is over. Modest funding is available for promising projects.

I will periodically ask for updates from you on your progress with your research project. Chronologically, they will be something like this:

- (i) An experimental economics research project proposal (brief—2 to 3 pages).
- (ii) Extensive list of references relevant to your project, with short summary of relevance of each to your project.
- (iii) Basic plan for an experimental design for your project, including hypotheses to be tested, and econometric plan for analyzing resulting data.
- (iv) A detailed experimental protocol for running the experiment (this will

be the basis for doing an application for research with human subjects to the Institutional Review Board).

(v) A full set (albeit in rough form) of experimental instruments for running the experiment (instructions, forms, program if you plan to do the experiment on computers (this may be a plan for a program).

(vi) Summary of dry run data. Econometric analysis, to the extent feasible. Having done all of the above, putting your paper together at the end will not be that difficult.

Learning Goals and Assessment

The Ph.D. Program in Economics has defined three broad and over-arching learning goals for students in the program:

1. Attain marked ability, scholarship, research, and leadership skills in economics, with specialization in selected sub-disciplines.
2. Engage in and conduct original research.
3. Prepare to be professionals in careers that require training at the highest levels in economics and selected sub-disciplines.

It should be evident from the foregoing that we are addressing all of these goals in this course, but particularly goals 2 and 3.