Taking a course in experimental economics is a little like going to dinner at a cannibal's house. Sometimes you will be the diner, sometimes you will be part of the dinner, sometimes both.

If you take a laboratory course in the physical sciences, you get to mix smelly chemicals, or monkey with pulleys, or dissect a frog, but you are always the experimenter and never the subject of the experiment. In the market experiments conducted in this class, you and your classmates will be the participants in the markets as well as the scientific observers who try to understand the results.

It is hard to imagine that a chemist can put herself in the place of a hydrogen molecule. A biologist who studies animal behavior is not likely to know what it feels like to be a duck. You are more fortunate. You are studying the behavior and interactions of people in economically interesting situations. And as one of these interacting economic agents, you will be able to experience the problems faced by such an agent first hand. We suspect that you will learn nearly as much about economic principles from your experience as a participant as you will from your analysis as an observer.

---Bergstrom and Miller’s 1999 preface.

**Course Description:** This course will provide the student with the necessary tools to be an avid consumer of the experimental literature and eventually a producer of the literature. Thus, it will provide a summary of recent experimental findings and detail how to gather and analyze data using experimental methods. There is no official text, but students are encouraged to look at the excellent books of Douglas Davis and Charles Holt [Experimental Economics, 1993] as well as John Kagel and Alvin Roth [Handbook of Experimental Economics, 1995].

**Office Hours (Rosenwald 205c):** W 8pm-8:45pm

**TAs Office Hours:**
Amalia Di Girolamo: Th 3:30-5pm Booth - Room 370
Anya Savikhin TBA
James Edwards F 1pm-2:30pm in Stuart Café
Alec Brandon Tu 9:30am-11am in Harper Library Café

**Class Participation:** After the initial instructor seminars and methodological discussions, each week will include actual participation in a select experiment and a discussion of relevant papers. The course will be conducted as both a teaching and research opportunity for all involved. The major emphasis will be an introduction to the tools of the trade as well as an emphasis on new questions and new experiments that could be conducted to address them.
Course Outline: One caveat is that this is merely a sampling of work that has been done in a few areas of study. The field is growing fast and I desire to give you a glimpse of some of the manuscripts that have been published and a brief look at some working papers. I am sure that we will add to this list along the way. A more complete list can be found at Charlie Holt’s (U. Virginia) website. My website contains a list of field experiments: www.fieldexperiments.com

Grading: You are required to fulfill the following assignments, with grading weights in parentheses. There is no mid-term or final exam, but take-home questions will be given occasionally.

(50) Quizzes and take-home questions: Roughly 3 or so quizzes will be given during the lab hour. I reserve the right to give announced—or surprise—quizzes during scheduled class time as well. We will throw out your worst performance and average the remaining quizzes.

Every few weeks or so I will give take-home questions; each of you will be responsible for answering these questions and turning them in at the required time. Handing these in late will be punished severely with point deductions of 5 points per hour late.

(35) Research Presentation: Each of you is expected to assemble a research proposal by the end of the quarter—since the class is so large I would prefer if people would do these in groups of up to 5. This proposal begins by providing a literature survey of a series of experimental studies. Experimentalists typically take stock in making steady, incremental progress to speak to theorists and policymakers, and to find facts. This follows from the belief that a series of experiments provides a more reliable conclusion than any sporadic group of studies. I subscribe to this belief as well. Accordingly, you need to be an expert in your chosen area of research.

The proposal then describes a new research question(s) and why it is important, and also includes relevant theory, experimental instructions, and an experimental design. To facilitate feedback, each group is required to present his/her research proposal near the end of the quarter in a 20-minute time slot. The written proposal is due 48 hours after your presentation and you should take account of the comments given during your seminar.

Some guidelines questions that we will discuss:

1. What is the question you would like to have answered after the experiment? (Your answer should be a single sentence with a question mark at the end.)
2. What do you know already about the possible answers to the question you have stated above?
3. What are the various possible ways of finding an answer to the question you have stated above? Include both experimental as well as any other methods you know about.
4. What are the advantages and disadvantages of using an experiment to find an answer?

5. What are the chances that the answer you get from the experiment will surprise you or others? What are the chances that it will change someone’s mind?

6. How would you conduct the experiment? (Write down a design and instructions.)

7. Is your experimental design the simplest possible design to help answer the question you have stated?

8. What are the possible outcomes of the experiment? Do the possible outcomes include at least one outcome that will answer the question you stated above? What is the chance that you will observe this outcome?

(15) Class participation: asking questions, reading the assigned papers, etc., all lead to good scholarship. I am demanding that you are prepared and participate in class.

The following schedule represents a rough guess of the topics we will cover. Those in bold are required readings; those readings not bolded are recommended. I reserve the right to draw lecture materials from all of these studies.

1. Introduction to experiments/first steps to reading an experimental paper

   A. Experimental terminology, some common statistical methods, etc.

      • See introductory chapters in Davis and Holt and Kagel and Roth.

   B. Optimal Design Choice
      • Sample size, power tests, etc.

   C. Graduate Student 15-minute discussions (Angus, Bayesian, within vs. between designs, etc.)

2. Market Experiments

Two-Sided


**One-Sided**

- Summaries: Kagel, John, "Auctions." Chapter 7 in KR. Parts of Chapter 5 in DH.
3. Public Good Provision

A. Public Goods Games

- Summary: Chapter 6 DH; Ledyard, John, "Public Goods: A Survey of Experimental Research." Chapter 2 in KR.

**B. Economics of Charity**


**4. “Behavioral” Economics**

**A. Prospect Theory**

B. Social Preferences


5. Field Experiments on the Economics of Education

• Fryer, Roland Financial Incentives and Student Achievement: Evidence from Randomized Trials, working paper, (2010).
6. Field Experiments on the Economics of Discrimination


7. Field Experiments in the Workplace


8. Field Experiments in Developing Countries


9. Experimental Economics in the Tube—Neuroeconomics

- Camerer, Colin; George Loewenstein; and Drazen Prelec. *Neuroeconomics: How neuroscience can inform economics.* Journal of Economic Literature, 2005, XLIII, 9-64.

Others, if we have time:

1. Risk and Uncertainty

- Summaries: Camerer, Colin, "Individual Decision Making" Chapter 8 in KR. Ch. 8 in DH.
2. Trade/Macro/Market Issues


3. Behavioral Finance


4. Tournaments