Course description

Experimental economics is a grown, yet growing, field in economics and business administration. It provides a method to test theoretical predictions, to explore human behavior and biological data (like brain data, eye movement data) in specific economic, psychological, anthropological environments, to search for patterns and regularities, design institutions, to advice on policy and in economic wheeling and dealing. The range of experimental test beds can be from lab experiments, field experiments, surveys etc. We present a series of experiments, parsimonious descriptive models, and some ideas about policy advice, all guided through classic experiments.

Organization of the course:

In 5 independent lectures we will discuss experimental economic topics of the front of current research.

Before the start of the course, or alternatively before each lecture, students will be invited to participate in a series of experiments via a webpage by Ariel Rubinstein, and write short ½-1 page comments about the different classical experiments to stimulate discussion in the lectures. During the course students will also participate in one lab experiment.

Each day there will be time for developing an original experimental design in groups of 2-4 students. Students may come with their own ideas (based on their own theoretical papers, models they have seen in a course, general questions which ask for empirical testing etc). Through this way of ‘learning by doing’ students are introduced to the methods of experimental economics. Students will be guided by the lecturer and by other more advanced graduate students and professors familiar with the field of experimental economics.

At the end of the course there will be group presentations on the projects.

Prerequisite for the course: curiosity for creating (lab) data to help to answer economic, psychological etc questions. Basic knowledge of game theory is helpful but not necessary to follow the course, since most game theoretic models will be introduced through experiments. 1-3 experimental papers (see references) should be read before the start of the course to come up with questions, which can be as general as “How about the behavior of experts?” What if we pay $100 instead of $10?; etc. Students can also contact me in advance by email to ask for experimental economics papers related to their own research interest.

If you want to see the (full) richness of experimental economics and related issues see the webpage by Al Roth, who in 2012 won the Nobel Memorial Prize in Economic Sciences jointly with Lloyd Shapley "for the theory of stable allocations and the practice of market design”. [http://kuznets.fas.harvard.edu/~aroth/aroth.html](http://kuznets.fas.harvard.edu/~aroth/aroth.html)

See also more webpages related to experimental economics at the end of this document.
1. **Introduction: A mini tour through the methods of experimental economics via the Beauty contest game (BCG)**
   a. What is experimental economics and reasons for the need of experimental economics
   b. Discussion of a series of lab experiments by changing the parameters of the basic BCG
   c. A bounded rational model about hierarchies of beliefs: from zero intelligence to rational expectations
   d. How to implement a field experiment
   e. A look into the brain with fMRI
   f. Survey methods: make a guess and a guess of a guess to induce policy changes in a professional association
   g. A new class of BCGs with shocks and signals: macro foundation of micro

2. **Markets and bubbles**
   a. Double oral auctions: the magic of the Walras equilibrium
   b. Zero intelligence is all we need?
   c. Creating bubbles in the lab
   d. Policy advise: How to prevent unraveling in medical labor markets

3. **Coordination games: the problem of multiple solutions and how to get out of it**
   a. Equilibrium selection through subjects
   b. Equilibrium selection through payoff perturbation (global game theory)
   c. Paying for information to enhance coordination

4. **Bargaining and Public Goods**
   a. The ultimatum game
   b. Free riding and how to prevent it
   c. Experiments and field studies in different cultures
   d. Some parsimonious models: social preference and learning.

5. **Gender studies**
   a. Women don’t ask, women and competition, etc.
   b. Affirmative actions: a curse or a blessing?
<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Event</th>
<th>Other comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9:00-11:00pm</td>
<td>Lecture 1: Introduction with the BCG</td>
<td>Students participate in an internet experiment and a survey*</td>
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<td></td>
<td>11:00-11:30</td>
<td>coffee break</td>
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<td></td>
<td>11:30-13:00</td>
<td>Lab Experiment</td>
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<td>13:00-14:00</td>
<td>Lunch</td>
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<td>14:00-16:00</td>
<td>Lecture 4 Markets and bubbles</td>
<td>The Lab experiment at 11.30 will be the base for discussion.</td>
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<td>16:00-16:30</td>
<td>Coffee break</td>
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<td>16:30-18:00</td>
<td>Group formation, Group Project</td>
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<td>2</td>
<td>9:00-11:00pm</td>
<td>Lecture 2: Coordination</td>
<td>Students participate in a series of internet experiments*</td>
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<td>11:00-11:30</td>
<td>coffee break</td>
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<td>11:30-13:00</td>
<td>Group project</td>
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<td>14:00-16:30</td>
<td>Lecture 3: bargaining and public goods</td>
<td>Students participate in a series of internet experiments*</td>
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<td>16:30-18:00</td>
<td>Group Project</td>
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<td>3</td>
<td>9:00-11:00pm</td>
<td>Lecture 5: Gender Studies</td>
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<td>11:00-11:30</td>
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<td></td>
<td>14:00-16:00</td>
<td>Group presentations</td>
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</tbody>
</table>

*These experiments are done via the internet prior to the course or lecture.
References:

General Literature:


Roth, Alvin E., "The Economist as Engineer: Game Theory, Experimentation, and Computation as Tools for Design Economics," Fisher-Schultz Lecture, Econometrica, 70,4, July 2002, 1341-1378. (Or see Hal Varian's much briefer NY Times column on this paper http://www.sims.berkeley.edu/~hal/people/hal/NYTimes/2002-08-29.html.)

References related to the lectures

Lecture 1: Introduction to experimental economics with the beauty contest game


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


Lecture 2: Markets and Bubbles


Lecture 3: Bargaining and Public Goods


Lecture 4: Coordination


Lecture 5: Gender studies


Instructions http://www.stanford.edu/~niederle/AA.Instructions.pdf


Other:

Summer schools in experimental economics

There are lots of summer schools in experimental economics

e.g.

Summer schools on macro experiments and workshop on macro experiments and theory, see

http://www.upf.edu/leex/events/events_2013.html

Other experimental websites:

Ariel Rubinstein: http://arielrubinstein.tau.ac.il/ the most critical mind of all shown in numerous articles,, free on-line books, creative experimental and theoretical papers and a great list of online experiments.

Charles Holt: http://people.virginia.edu/~cah2k/with interesting software for experiments (ideal for teaching)

Al Roth: http://kuznets.fas.harvard.edu/~aroth/alroth.html