

# AREC 815: Experimental and Behavioral Economics

Department of Agricultural and Resource Economics  
University of Maryland, College Park  
Fall 2016

## Course Information

### Professor: Pamela Jakiela

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Office Hours: Mondays and Wednesdays from 9:30–10:30 AM

### Lectures

Times: Mondays and Wednesdays<sup>1</sup> from 2:00 to 3:15 PM

Location: 0115 Symons Hall

### Course Website

<http://www.pamjakiela.com/arec815.htm>

## Course Description

An overview of the design, implementation, and analysis of experiments motivated by behavioral economics, with a particular focus on experiments in various field settings. Topics covered include social preferences, risk aversion, prospect theory, present bias, overconfidence, and limited attention.

## Course Objectives

1. To provide an overview of research in behavioral economics, with a particular focus on those areas in which behavioral economic models of individual decision-making are the most well-developed (specifically, social, risk, and time preferences); and to provide a comprehensive introduction to the empirical experimental literature focused on testing behavioral economic theories of individual choice.
2. To familiarize students with a range of tools and strategies useful for conducting experiments and collecting individual decision data in lab and field settings.
3. To equip students with the econometric tools needed to analyze data from experiments, including the estimation of both experimental treatment effects and individual preference parameters.
4. To provide students with opportunities to share and improve their research ideas.
5. To help students improve their presentation and pedagogical skills.

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<sup>1</sup>There is no class on September 5 (Labor Day), October 10 (Columbus Day), or November 23 (the day before Thanksgiving). I will not be holding office hours on October 10 or October 12.

## Prerequisites

This course is intended for PhD students in the AREC department. PhD students from other departments are welcome to enroll provided they have adequate training in economics and math. Specifically, the following are required: a one-year PhD-level sequence in microeconomics which covers consumer theory, game theory, and mechanism design; and a PhD-level course in econometrics introducing linear regression and maximum likelihood estimation. If you do not have this preparation, you cannot take the course.

Problem Set 0 is available in the `Arec815_2016` folder on the AREC shared (R) drive. It is due on September 6. It should either be a review of what you already know, or that plus a gentle introduction to L<sup>A</sup>T<sub>E</sub>X and MATLAB. If you have trouble completing Problem Set 0, you will have a hard time making it through the semester.

## Readings & Lecture Notes

Most readings are academic articles and working papers which are available online (either through JSTOR or via the authors' websites). A number of chapters from *Handbook of Experimental Economics*, edited by John Kagel and Al Roth, and from Colin Camerer's *Behavioral Game Theory* are very highly recommended. Slides associated with the lectures will be posted on the course website.

The following econometric references are not required, but will prove useful (both in this class and in life):

- Angrist, Joshua, and Jörn-Steffen Pischke. (2008) *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton University Press.
- Gerber, Alan and Donald Green. (2012) *Field Experiments*. W. W. Norton & Company.
- Train, Kenneth. (2009) *Discrete Choice Methods with Simulation*. Cambridge University Press. *Available for free on Train's website.*

## Assignments & Grading

Your course grade is based on: two exams, five problem sets, two in-class presentations, and class participation. Assignments will typically be handed out or announced during lecture. Supporting documents will be made available online and in the shared folder.

- **Exams:** two in-class exams are tentatively scheduled for October 17 and December 12. Each of these exams counts for 30 points.
- **Problem sets:** you will complete five problem sets (not including Problem Set 0), each worth 12 points. Each problem set will include both a theoretical component and an applied component. You are encouraged to work in groups, but each student must turn in his or her own write-up of the solutions. Any evidence of academic dishonesty will be punished.

- **Class presentations:** you will make two in-class presentations over the course of the semester. Each of these presentations counts for 10 points.
- **Class participation:** you are expected to come to class (prepared) and to participate in our discussions of the required readings and other course content. Class participation counts for 9 points.

Final grades will be determined as follows. No extra credit will be made available, and the course will not be graded on a curve.

Minimum Score	Maximum Score	Letter Grade
132	$\infty$	A <sup>+</sup>
127	131.999	A
123	126.999	A <sup>-</sup>
119	122.999	B <sup>+</sup>
113	118.999	B
109	112.999	B <sup>-</sup>
105	108.999	C <sup>+</sup>
100	104.999	C
95	99.999	C <sup>-</sup>
91	94.999	D <sup>+</sup>
0	90.999	Infamy

## Office Hours

Office hours are on Mondays and Wednesdays from 9:30–10:30 AM. I encourage you to come by my office during office hours to introduce yourself or discuss any topic related to the course material or economics more broadly. If you cannot attend my drop-in office hours, please email me to set up an appointment.

## Tentative Schedule

The schedule below is approximate.

1. What is behavioral economics? What is an experiment? (1 class)
2. Distributional preferences (10 classes)
  - (a) Simple distributional preference experiments
  - (b) Are distributional preferences rational?
  - (c) Individual effort and fairness
  - (d) Reciprocity and conditional cooperation
  - (e) Applications: labor markets, charitable giving, sharing in networks, etc.
3. Risk preferences and loss aversion (6 classes)

- (a) Experiments measuring risk aversion
  - (b) Prospect theory and loss aversion
  - (c) Incentives, mistakes, and stochastic choice in experiments
  - (d) Applications: driving a taxi
4. Present bias (6 classes)
- (a) Now vs. later: the quasi-hyperbolic model
  - (b) Contract design when agents are present-biased
  - (c) Applications: commitment devices, habits, and self-control
  - (d) Time Preferences, Episode V: Exponential Discounting Strikes Back
  - (e) Time Preferences, Episode VI: The Return of the  $\beta$
5. Gender, overconfidence, and competitiveness (1 class)
6. Salience and limited attention (1 class)
7. Persuasion (1 class)