ECON 463/663: Experimental Economics

Spring 2027

Course logistics

Professor: Remy Beauregard
Professor email: rbeauregard@usfca.edu
Credit: 2 units · Lecture
Lectures: Tuesday · 2:40-4:25 PM · ED 309
Term: January 25 to May 20, 2027
Office hours: Tuesday · 4:30-6:30 PM · McLaren 108

Virtual meetings outside of scheduled office hours can be arranged through my office hours sign-up calendar.

Course description

This course introduces modern laboratory experimental methods to students with well-developed interests in economics and with an intermediate-level knowledge of microeconomics and statistics. The course examines experimental techniques in detail and surveys recent applications in fields such as markets, development, choice under certainty and games. Students use the lessons to conduct original research and set up their own experiment.

This course is an introduction to experimental economics for first-year master's students and advanced undergraduates with the goal for every student to leave the course able to design a credible economic experiment from start to finish. We begin with the logic of the experimental method: why randomization identifies causal effects, how laboratory and field experiments differ, and how induced values and salient incentives give the experimenter control over the economic environment. We then turn to the practical work of design: writing instructions, choosing a sample size, randomizing, deciding between within-subject and between-subject comparisons, and meeting our ethical and institutional obligations to participants. Finally, we survey what experiments have taught us about markets, individual choice, strategic interaction, and development, and close by asking when experimental results replicate and generalize beyond the setting that produced them.

We will explore:

- What can an experiment tell us that observational data cannot, and what can it not tell us?
- How do we give laboratory participants preferences we can control, and when does that control break down?
- How many participants does an experiment need, and how should we assign them to treatments?
- What do we owe the people who take part in our experiments?
- When do laboratory findings carry over to markets and households outside the laboratory?

A given week combines chapters from List's *Experimental Economics* with a published experiment that we discuss together as a class. Students should read these materials thoroughly and come to class prepared to discuss the week's topic. Additional recommended materials are provided most weeks for further reading, but are not expected to be discussed in class.

Course learning outcomes

By the end of this course, students will be able to:

- Explain the logic of causal inference in experiments using the potential outcomes framework, and identify the assumptions under which random assignment identifies a treatment effect.
- Compare laboratory, online, and field experiments, and choose an experimental approach suited to a research question by weighing control, measurement, replicability, and generalizability.
- Construct a laboratory economic environment using induced values and salient incentives, write clear subject instructions, and anticipate how payment schemes, subject pools, and experimenter demand shape behavior.
- Choose a sample size from a power calculation, select a randomization procedure, and explain how treatment effects are estimated and tested, including why multiple hypotheses require correction.
- Recognize threats to internal validity, including spillovers and noncompliance, and design experiments that limit them.
- Apply the ethical principles and institutional requirements that govern human subjects research, including informed consent, the use of deception, institutional review, and pre-registration.
- Read, interpret, and evaluate published experiments in economics, identifying their research question, whether and how randomization is used, identification strategy, threats to internal and external validity, and contribution to the literature.
- Design an original economic experiment, document it in a pre-registration and a review-board-style protocol, and present it clearly to an audience of peers.

Assignments

The assignments in this course are designed to support you in working toward the learning outcomes above and to provide an opportunity for you to develop an experiment on a question of your choosing.

Class participation

Attend weekly class sessions and participate in class discussions and activities.

Weekly reading responses

Submit a response to the week's required article on Canvas by the beginning of class each Tuesday at 2:40pm. Each response answers five questions about the paper: (1) What is the research question? (2) Is randomization conducted, and if so, how? (3) How is causal identification achieved? (4) How are internal and external validity addressed? (5) How does this paper fit into the literature? For more details, see the Weekly Reading Response Guidelines page on Canvas. Each week's article is linked in the response assignment on Canvas.

Experimental design project

Working individually, you will design an original experiment incrementally across the semester through five assignments. Each assignment applies material from the preceding weeks of lecture to your own project and revises earlier components in response to feedback. The project ends with a finalized design, which you will present to the class on the last day of class or during the final exam period. For more details, see the Experimental Design Project Guidelines page on Canvas.

Project outputs are due on Canvas by 6:00pm on the date listed. Late submissions less than 24 hours after the deadline are accepted for half credit; late submissions more than 24 hours after the deadline are not eligible for credit. Please contact me *before the submission deadline* if you need to request an extension. The project is worth 100 points.

Due	Deliverable	Points
Friday 2/12 (week 3)	Assignment 1: Research question	10
Friday 3/5 (week 6)	Assignment 2: Environment and instructions	15
Saturday 3/27 (week 9)	Assignment 3: Power and randomization	15
Friday 4/16 (week 12)	Assignment 4: Pre-registration	10
Friday 5/7 (week 15)	Assignment 5: Review-board protocol and final design	25
Sunday 5/9 (week 15)	Final presentation slides	5
Tuesday 5/11 (week 16) or final exam period	Final presentation, delivered in class	20

1. **Research question.** State your research question and the economic theory that generates a testable prediction. Describe your treatments and outcomes, identify the treatment effect you intend to estimate, explain why an experiment (and which type of experiment) is the right tool, and summarize three related published experiments.
2. **Environment and instructions.** Specify the economic environment of your experiment: the payoff function, induced values and parameter choices, and the payment procedure. Submit a complete draft of your subject instructions, comprehension questions, and a session timeline.
3. **Power and randomization.** State your primary hypothesis and the comparison that tests it. Choose your sample size from a power calculation with clearly stated assumptions, justify a within-subject or between-subject design, describe your randomization procedure, and budget your participant payments (for example, using the cost calculator on Prolific).
4. **Pre-registration.** Draft a registration for your experiment following the fields of the AEA RCT Registry: your hypotheses, primary and secondary outcomes, treatments, unit of randomization, planned sample size, and the main comparison you will report. A full pre-analysis plan is not required.
5. **Review-board protocol and final design.** Prepare a protocol modeled on an institutional review board application, including recruitment, a consent form, a statement on any deception, an assessment of risks and benefits to participants, compensation, and a data management plan. Submit it with your final design, revised from Assignments 1-4 in response to feedback. Building a working version of your experiment in oTree, Qualtrics, or another platform is optional and not required for full credit.

Grading

Your overall grade in this course is calculated as a weighted sum of the assignments below. No other assignments are eligible for credit in this course.

Assignment category	Weight
Participation in class discussion	10%
Weekly written reading responses	40%
Experimental design project and final presentation	50%
Total	**100%**

Class grades will be assigned according to the following scale:

Letter grade	Score range
A	Above 93%
A-	90 to 93%
B+	87 to 90%
B	83 to 87%
B-	80 to 83%
C+	77 to 80%
C	70 to 77%
D	60 to 70%
F	Below 60%

Please contact Professor Beauregard with any concerns about class grades.

Attendance

You are expected to attend every class meeting. Because we meet once a week, missing a single class means missing a full week of the course. Your attendance and engagement in discussion make up the class participation portion of your grade.

If you must miss class, please contact me in advance. Absence on the day of your final presentation without prior permission will result in a presentation grade of zero. Absences on that day with professor permission due to extenuating circumstances may be excused in rare cases.

Course schedule

Weekly topics, textbook chapters, required journal articles, and project due dates are listed below. A reading response is due at the start of every class with a required article except the first. Full citations for every required, recommended, and supplemental reading appear under Text and supplies below.

Wk	Date	Topic	List chapters	Required article	Due
1	Tue 1/26	Why experiment? The laboratory and the field	Ch 1; Ch 2	Smith (1962), *JPE*	
2	Tue 2/2	Causal inference and internal validity	Ch 3	Kahneman, Knetsch, & Thaler (1990), *JPE*	
3	Tue 2/9	Induced values and incentives	Ch 19, 19.1-19.4; Appendix 19.1	Gneezy & Rustichini (2000), *QJE*	**Assignment 1** due Fri 2/12
4	Tue 2/16	Running a laboratory session: instructions, software, and subject pools	Ch 19, Appendix 19.2	de Quidt, Haushofer, & Roth (2018), *AER*	
5	Tue 2/23	Estimation and inference	Ch 4	Fehr & Gächter (2000), *AER*	

Wk	Date	Topic	List chapters	Required article	Due
6	Tue 3/2	Statistical power and optimal design	Ch 5, 5.1-5.5 and 5.7	Karlan & List (2007), *AER*	**Assignment 2** due Fri 3/5
7	Tue 3/9	Randomization techniques	Ch 6	Ashraf, Karlan, & Yin (2006), *QJE*	
8	Tue 3/16	Spring break (no classes)			
9	Tue 3/23	Within-subject designs and heterogeneity	Ch 10; Ch 7, 7.1-7.2	Niederle & Vesterlund (2007), *QJE*	**Assignment 3** due Sat 3/27
10	Tue 3/30	Ethics, review boards, and pre-registration	Ch 17; Ch 18	Bertrand & Mullainathan (2004), *AER*	
11	Tue 4/6	Spillovers and noncompliance	Ch 11, 11.1-11.2; Ch 13, 13.1-13.3 and 13.5	Duflo & Saez (2003), *QJE*	
12	Tue 4/13	Applications: markets	Supplement S1	List (2003), *QJE*	**Assignment 4** due Fri 4/16
13	Tue 4/20	Applications: measuring preferences and beliefs	Supplement S4	Holt & Laury (2002), *AER*	
14	Tue 4/27	Applications: games and social preferences	Ch 16, 16.1-16.3	Gneezy & List (2006), *Econometrica*	
15	Tue 5/4	Applications: development and lab-in-the-field experiments	Ch 16, 16.4-16.5	Henrich et al. (2001), *AER*	**Assignment 5** due Fri 5/7; slides due Sun 5/9
16	Tue 5/11	Replication; student final presentations	Ch 15	None	Final presentations
	TBD by registrar	**Final presentations (finals period)**	None	None	Final presentations

Text and supplies

List, John A. 2026. *Experimental Economics: Theory and Practice*. Chicago: University of Chicago Press. ISBN 9780226820675. Required.

Journal articles

Full citations for all required journal articles, plus any recommended or supplemental readings, are listed below by week. Every article is linked by its DOI; please access articles through the USF library portal, and contact Professor Beauregard with any problems accessing course materials. I do not expect you to pay for any article access.

Week 1, 1/26. Why experiment? The laboratory and the field

Required

Smith, Vernon L. 1962. "An Experimental Study of Competitive Market Behavior." *Journal of Political Economy* 70 (2): 111-137.

Recommended

Harrison, Glenn W., and John A. List. 2004. "Field Experiments." *Journal of Economic Literature* 42 (4): 1009-1055.

Week 2, 2/2. Causal inference and internal validity

Required

Kahneman, Daniel, Jack L. Knetsch, and Richard H. Thaler. 1990. "Experimental Tests of the Endowment Effect and the Coase Theorem." *Journal of Political Economy* 98 (6): 1325-1348.

Recommended

Plott, Charles R., and Kathryn Zeiler. 2005. "The Willingness to Pay-Willingness to Accept Gap, the 'Endowment Effect,' Subject Misconceptions, and Experimental Procedures for Eliciting Valuations." *American Economic Review* 95 (3): 530-545.

Week 3, 2/9. Induced values and incentives

Required

Gneezy, Uri, and Aldo Rustichini. 2000. "Pay Enough or Don't Pay at All." *Quarterly Journal of Economics* 115 (3): 791-810.

Recommended

Smith, Vernon L. 1976. "Experimental Economics: Induced Value Theory." *American Economic Review* 66 (2): 274-279.

Camerer, Colin F., and Robin M. Hogarth. 1999. "The Effects of Financial Incentives in Experiments: A Review and Capital-Labor-Production Framework." *Journal of Risk and Uncertainty* 19 (1-3): 7-42.

Supplemental

Azrieli, Yaron, Christopher P. Chambers, and Paul J. Healy. 2018. "Incentives in Experiments: A Theoretical Analysis." *Journal of Political Economy* 126 (4): 1472-1503.

Güth, Werner, Rolf Schmittberger, and Bernd Schwarze. 1982. "An Experimental Analysis of Ultimatum Bargaining." *Journal of Economic Behavior & Organization* 3 (4): 367-388.

Week 4, 2/16. Running a laboratory session: instructions, software, and subject pools

Required

de Quidt, Jonathan, Johannes Haushofer, and Christopher Roth. 2018. "Measuring and Bounding Experimenter Demand." *American Economic Review* 108 (11): 3266-3302.

Recommended

Zizzo, Daniel John. 2010. "Experimenter Demand Effects in Economic Experiments." *Experimental Economics* 13 (1): 75-98.

Snowberg, Erik, and Leeat Yariv. 2021. "Testing the Waters: Behavior across Participant Pools." *American Economic Review* 111 (2): 687-719.

Supplemental

Chen, Daniel L., Martin Schonger, and Chris Wickens. 2016. "oTree—An Open-Source Platform for Laboratory, Online, and Field Experiments." *Journal of Behavioral and Experimental Finance* 9: 88-97.

Fischbacher, Urs. 2007. "z-Tree: Zurich Toolbox for Ready-Made Economic Experiments." *Experimental Economics* 10 (2): 171-178.

Week 5, 2/23. Estimation and inference

Required

Fehr, Ernst, and Simon Gächter. 2000. "Cooperation and Punishment in Public Goods Experiments." *American Economic Review* 90 (4): 980-994.

Recommended

List, John A., Azeem M. Shaikh, and Yang Xu. 2019. "Multiple Hypothesis Testing in Experimental Economics." *Experimental Economics* 22 (4): 773-793.

Week 6, 3/2. Statistical power and optimal design

Required

Karlan, Dean, and John A. List. 2007. "Does Price Matter in Charitable Giving? Evidence from a Large-Scale Natural Field Experiment." *American Economic Review* 97 (5): 1774-1793.

Recommended

List, John A., Sally Sadoff, and Mathis Wagner. 2011. "So You Want to Run an Experiment, Now What? Some Simple Rules of Thumb for Optimal Experimental Design." *Experimental Economics* 14 (4): 439-457.

Week 7, 3/9. Randomization techniques

Required

Ashraf, Nava, Dean Karlan, and Wesley Yin. 2006. "Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines." *Quarterly Journal of Economics* 121 (2): 635-672.

Recommended

Bruhn, Miriam, and David McKenzie. 2009. "In Pursuit of Balance: Randomization in Practice in Development Field Experiments." *American Economic Journal: Applied Economics* 1 (4): 200-232.

Supplemental

Berg, Joyce, John Dickhaut, and Kevin McCabe. 1995. "Trust, Reciprocity, and Social History." *Games and Economic Behavior* 10 (1): 122-142.

Week 8, 3/16. Spring break, no class

Week 9, 3/23. Within-subject designs and heterogeneity

Required

Niederle, Muriel, and Lise Vesterlund. 2007. "Do Women Shy Away from Competition? Do Men Compete Too Much?" *Quarterly Journal of Economics* 122 (3): 1067-1101.

Recommended

Charness, Gary, Uri Gneezy, and Michael A. Kuhn. 2012. "Experimental Methods: Between-Subject and Within-Subject Design." *Journal of Economic Behavior & Organization* 81 (1): 1-8.

Week 10, 3/30. Ethics, review boards, and pre-registration

Required

Bertrand, Marianne, and Sendhil Mullainathan. 2004. "Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination." *American Economic Review* 94 (4): 991-1013.

Recommended

Olken, Benjamin A. 2015. "Promises and Perils of Pre-Analysis Plans." *Journal of Economic Perspectives* 29 (3): 61-80.

Hertwig, Ralph, and Andreas Ortmann. 2001. "Experimental Practices in Economics: A Methodological Challenge for Psychologists?" *Behavioral and Brain Sciences* 24 (3): 383-403.

Supplemental

Coffman, Lucas C., and Muriel Niederle. 2015. "Pre-Analysis Plans Have Limited Upside, Especially Where Replications Are Feasible." *Journal of Economic Perspectives* 29 (3): 81-98.

Week 11, 4/6. Spillovers and noncompliance

Required

Duflo, Esther, and Emmanuel Saez. 2003. "The Role of Information and Social Interactions in Retirement Plan Decisions: Evidence from a Randomized Experiment." *Quarterly Journal of Economics* 118 (3): 815-842.

Week 12, 4/13. Applications: markets

Required

List, John A. 2003. "Does Market Experience Eliminate Market Anomalies?" *Quarterly Journal of Economics* 118 (1): 41-71.

Recommended

Smith, Vernon L., Gerry L. Suchanek, and Arlington W. Williams. 1988. "Bubbles, Crashes, and Endogenous Expectations in Experimental Spot Asset Markets." *Econometrica* 56 (5): 1119-1151.

Week 13, 4/20. Applications: measuring preferences and beliefs

Required

Holt, Charles A., and Susan K. Laury. 2002. "Risk Aversion and Incentive Effects." *American Economic Review* 92 (5): 1644-1655.

Recommended

Charness, Gary, Uri Gneezy, and Alex Imas. 2013. "Experimental Methods: Eliciting Risk Preferences." *Journal of Economic Behavior & Organization* 87: 43-51.

Schotter, Andrew, and Isabel Trevino. 2014. "Belief Elicitation in the Laboratory." *Annual Review of Economics* 6: 103-128.

Supplemental

Andreoni, James, and Charles Sprenger. 2012. "Estimating Time Preferences from Convex Budgets." *American Economic Review* 102 (7): 3333-3356.

Week 14, 4/27. Applications: games and social preferences

Required

Gneezy, Uri, and John A. List. 2006. "Putting Behavioral Economics to Work: Testing for Gift Exchange in Labor Markets Using Field Experiments." *Econometrica* 74 (5): 1365-1384.

Recommended

Levitt, Steven D., and John A. List. 2007. "What Do Laboratory Experiments Measuring Social Preferences Reveal about the Real World?" *Journal of Economic Perspectives* 21 (2): 153-174.

Supplemental

Falk, Armin, and James J. Heckman. 2009. "Lab Experiments Are a Major Source of Knowledge in the Social Sciences." *Science* 326 (5952): 535-538.

Week 15, 5/4. Applications: development and lab-in-the-field experiments

Required

Henrich, Joseph, Robert Boyd, Samuel Bowles, Colin Camerer, Ernst Fehr, Herbert Gintis, and Richard McElreath. 2001. "In Search of Homo Economicus: Behavioral Experiments in 15 Small-Scale Societies." *American Economic Review* 91 (2): 73-78.

Recommended

Cardenas, Juan Camilo, and Jeffrey Carpenter. 2008. "Behavioural Development Economics: Lessons from Field Labs in the Developing World." *Journal of Development Studies* 44 (3): 311-338.

Week 16, 5/11. Replication; student final presentations

No new required article.

Recommended

Camerer, Colin F., Anna Dreber, Eskil Forsell, Teck-Hua Ho, Jürgen Huber, Magnus Johannesson, Michael Kirchler, Johan Almenberg, Adam Altmejd, Taizan Chan, Emma Heikensten, Felix Holzmeister, Taisuke Imai, Siri Isaksson, Gideon Nave, Thomas Pfeiffer, Michael Razen, and Hang Wu. 2016. "Evaluating Replicability of Laboratory Experiments in Economics." *Science* 351 (6280): 1433-1436.

Program learning outcomes

This course is an elective in the MS IDEC Program, and its objectives flow from the program's learning goals. In particular, its scope is designed to help students:

- Understand the application of modern microeconomic theory to individual and strategic decision-making, concentrating here on induced preferences, choice under risk, markets, and games, including in the settings of developing economies.
- Design rigorous research to answer economic questions. The experimental design project covers the full arc of designing an original experiment, from research question to economic environment, power calculation, randomization, pre-registration, and review-board protocol, and asks students to justify each design choice using the methods developed in lecture.
- Effectively communicate research findings in writing and orally, through weekly written evaluations of published experiments, class discussion, and the development and presentation of an original experimental design throughout the semester.

The course also prepares students for the program goal of designing and carrying out fieldwork-based research. The experimental design project is a complete research design that students can refine into a viable second-year thesis project; carrying out the experiment and analyzing its data are left to that later work.