

# Economics 451: Behavioral and Experimental Economics

University of Montana  
Department of Economics  
Fall 2020

---

## **Instructor: Matt Taylor**

Lecture: MWF 11:00-11:50

## **Lecture Location: Remote via Zoom**

Email: matthew.taylor@mso.umt.edu

Office: Liberal Arts 406

Office Hours: via Zoom by Appointment

CRN: 74616

---

## **Course Description**

The purpose of this course is to provide you with an overview of experimental economics and behavioral economics. We will discuss the methods and the tools frequently used in economics experiments, as well as some of the key concepts, results, and contributions of experimental economics, behavioral economics, and neuroeconomics. We will explore the experimental design of previous experiments, and you will learn how to critically assess other experiments as well as design your own.

## **Prerequisites**

- ECNS 201S: Principles of Microeconomics

## **Required Books & Resources**

- Richard H. Thaler and Cass R. Sunstein, *Nudge: Improving Decisions About Health, Wealth, and Happiness*
- iClicker Reef
  - Participating in iClicker activities will count toward your final grade.
  - Attendance, polls, and quizzes will be administered through iClicker.
  - The iClicker Reef app can be accessed on a smartphone, tablet, or laptop.
  - Detailed instructions for how to create an account, register for our class, and how to participate in iClicker sessions are posted under “iClicker Instructions” on Moodle

## **Course Website**

I will post course material on Moodle and you will submit your completed work as PDF files on Moodle. You will also be able to track your grade on Moodle.

## **Grading Policy**

Your final course grade will be determined as follows:

- 15% Two Article Quasi-Referee Reports
- 10% Two Behavioral Economics TED Talk Summaries
- 15% Quizzes (and Polls)
- 50% Research Proposal:
  - Annotated Bibliography—5%
  - Research Question & Motivation Presentation—5%
  - Research Question, Motivation & Literature Review—15%
  - One-on-one Zoom Meeting to Discuss Research Question—5%
  - Proposal—20%
- 5% Participation & Attendance
- 5% Completion of CITI Human Subjects Protection Course

## **Due Dates**

The following due dates are subject to change.

- Annotated Bibliography—09/04/2020
- Referee Reports: 1st report due by 09/11/2020; 2nd due by 09/25/2020
- Research Question & Motivation Presentation—starting 09/16/2020
- One-on-one Zoom Meeting to Discuss Research Proposal—starting 9/23/2020, due by 10/12/2020
- TED Talk Summaries: 1st summary due by 10/09/2020; 2nd summary due 11/06/2020
- Research Question, Motivation, & Literature Review—10/26/2020
- Completion of CITI Human Subjects Protection Course—10/30/2020
  - You can find the CITI Human Subjects Protection Course here:  
<https://www.umt.edu/research/compliance/IRB/hspcourse.php>
- Research Proposal—11/18/2020

## **Graduate-level credit**

Students taking this course for graduate-level credit will be required to present their research proposal in class during the last two weeks of the semester. The presentation will be worth 5% of the grade. The proposal will be reduced to 15% for these students.

## Quizzes

**We will have regular quizzes (usually weekly) during class using the iClicker Reef app.** The quizzes will be short multiple-choice and will typically be three or fewer questions. Questions will be about recently covered material. Each question will be worth one point.

## Students with Disabilities

If you are a student with a disability who will require reasonable program modifications in this course, please meet with Disability Services for Students in Lommasson 154 for assistance in developing a plan to address program modifications. If you are already working with Disability Services arrange to meet with me during my office hours to discuss reasonable modifications that may be necessary. For more information, visit the Disability Services website at <http://www.umt.edu/disability>.

## Drops and Credit/No-Credit

The University has deadlines and policies applicable to dropping the course and changing your grading option. Request to make changes must be in accordance with University policy and deadlines. **In accordance with University policy, students taking the course credit/no credit must earn a D- or better to receive credit.**

## Academic Integrity

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at <http://life.umt.edu/vpsa/student conduct.php>.

## Outline of Course Material

The following is a tentative schedule of lectures and associated readings. You can expect readings with asterisks to be discussed in class and to be potential sources of quiz questions. **Additional readings (and potentially topics) will be assigned throughout the course. The schedule should be viewed as tentative and may be subject to change throughout the term.**

## Part I: Introduction

- Why do Experiments?
  - **\*Falk and Heckman**, "Lab Experiments Are a Major Source of Knowledge in the Social Sciences," *Science*, 2009
  - **\*Levitt & List**, "What Do Laboratory Experiments Measuring Social Preferences Reveal about the Real World?," *Journal of Economic Perspectives*, 2007
  - **Smith**, "Economics in the Laboratory"

- Tools
  - Vecon Lab @ <http://veconlab.econ.virginia.edu>
- Market Experiments
  - Pit Market
  - Double-Auction
- Experiment: VeconLab, Double Auction

## Part II: Coordination, Bargaining, and Trust

- Competition, Coordination, and Guessing (The Beauty Contest)
  - **Holt and Roth**, “The Nash Equilibrium: A Perspective”, *Proceedings of the National Academy of Science of the U.S.*, 2004
  - **Van Huyck et al.**, “Tacit Coordination Games, Strategic Uncertainty, and Coordination Failure,” *American Economic Review*, 1989
  - **Goeree & Holt**, “An Experimental Study of Costly Coordination,” *Games and Economic Behavior*, 2005.
  - **\*Nagel**, “Unraveling in Guessing Games: An Experimental Study,” *The American Economic Review*, 1995
  - Experiment: VeconLab, Prisoner’s Dilemma, Coordination, and Beauty Contest
- The Dictator Game
- The Ultimatum Game
  - **\*Camerer & Thaler**, “Anomalies: Dictators, Ultimatums, and Manners,” *Journal of Economic Perspectives*, 1995.
  - **\*Hoffman, McCabe & Smith**, “On Expectations and the Monetary Stakes in Ultimatum Games,” *International Journal of Game Theory*, 1996.
  - **Kagel, Chung & Moser**, “Fairness in Ultimatum Games with Asymmetric Information and Asymmetric Payoffs,” *Games and Economic Behavior*, 1996
  - **Camerer & Fehr**, “When Does “Economic Man” Dominate Social Behavior?,” *Science*, 2006
  - Experiment: Vecon Lab, Ultimatum Game
- Trust, Reciprocity, and Principal-Agent Games
  - **\*Berg, Dickhaut, McCabe**, “Trust, Reciprocity, and Social History,” *Games and Economic Behavior*, 1995
  - **Fehr, Kirchsteiger, & Riedl**, “Does Fairness Prevent Market Clearing? An Experimental Investigation,” *The Quarterly Journal of Economics*, 1993
  - **\*Cox**, “How to Identify Trust and Reciprocity,” *Games and Economic Behavior*, 2004
  - **Charness, Frechette, & Kagel**, “How Robust is Laboratory Gift Exchange?” *Experimental Economics*, 2004
  - Experiment: VeconLab, Gift Exchange, Trust Game, Principal-Agent Game
- Randomized Strategies
  - Experiment: VeconLab, Matching Pennies and Battle of the Sexes

## Part III: Choice under Uncertainty—Expected Utility Theory and Prospect Theory

- Risk Aversion
  - **\*Holt and Laury**, “Risk Aversion and Incentive Effects,” *The American Economic Review*, 2002

- **\*Rabin & Thaler**, “Anomalies: Risk Aversion,” *The Journal of Economic Perspectives*, 2001
- **Andreoni & Sprenger**, “Time Preferences are Not Risk Preferences,” *The American Economic Review*, 2012
- Prospect Theory
  - **\*Barberis**, “Thirty Years of Prospect Theory in Economics: A Review and Assessment,” *Journal of Economic Perspectives*, 2013
  - **\*Kahneman & Tversky**, “Prospect Theory: An Analysis of Decision Under Risk,” *Econometrica*, 1979
  - **\*Harbaugh, Krause, & Vesterlund**, “The Fourfold Pattern of Risk Attitudes in Choice and Pricing Task,” *The Economic Journal*, 2009
  - **\*Grossman & Eckel**, “Loving the Long Shot: Risk Taking with Skewed Lotteries,” *Journal of Risk and Uncertainty*, 2015
- Experiment: Vecon Lab, Lottery Games

#### Part IV: Behavioral Economics

- Humans v. Econs
  - **\*Nudge**, p. 1-39
- What is Behavioral Economics?
  - **\*Camerer and Loewenstein**, *Behavioral Economics: Past, Present and Future*, 2002, p. 1-36.
  - **\*Chetty**, “Behavioral Economics and Public Policy,” *AER*, 2015
  - **\*Benartzi & Thaler**, “Behavioral Economics and the Retirement Savings Crisis,” *Science*, 2013
- Preferences Revealed, Constructed, Discovered, or Learned?
  - **\*Ariely, Loewenstein, and Prelec**, “Coherent Arbitrariness,” *Quarterly Journal of Economics*, 2003
  - **\*Ariely, Loewenstein, Prelec**, “Tom Sawyer and the Construction of Value,” *Journal of Economic Behavior and Organization*, 2006.
- Heuristics and Biases
  - **\*Tversky & Kahneman**, “Judgment under Uncertainty: Heuristics and Biases,” *Science*, 1974
- The Affect of Emotions on Economic Decisions
  - **Loewenstein, Hsee, Weber, & Welch**, “Risk as Feeling,” *Psychological Bulletin*, 2001.
  - **\*Lerner, Small, & Loewenstein**, “Heart Strings and Purse Strings: Carryover Effects of Emotions on Economic Decisions,” *Psychological Science*, 2004.
  - **\*Gambetti & Giusberti**, “The Effect of Anger and Anxiety Traits on Investment Decision,” *Journal of Economic Psychology*, 2012.
- The Endowment Effect
  - **Kahneman, Knetsch, & Thaler**, “Experimental Tests of the Endowment Effect and the Coase Theorem,” *The Journal of Political Economy*, 1990
- Dynamic Inconsistency and Commitment Mechanisms
  - **\*Thaler & Sunstein**, *Nudge*, p. 40-5
- **Laibson**, “Golden Eggs and Hyperbolic Discounting,” *QJE*, 2001.
- **\*Ariely & Wertenbroch**, “Procrastination, Deadlines, and Performance,” *Psychological Science*, 2002
- The Hot-Hand and Gambler’s Fallacies

- **\*Tversky and Gilovich**, “The Cold Facts about the ‘Hot Hand’ in Basketball,” *Chance*, 1989
- **Gilovich, Vallone, and Tversky**, “The Hot Hand in Basketball,” *Cognitive Psychology*, 1985
- **Avugos et al.**, “The ‘Hot Hand’ Reconsidered: A Meta-Analytic Approach,” *Psychology of Sports and Exercise*, 2013
- **\*Guryan and Kearney**, “Gambling at Lucky Stores,” *The American Economic Review*, 2008

#### **Part V: Neuroeconomics**

- **Fehr & Rangel**, “Neuroeconomic Foundations of Economic Choice—Recent Advances,” *Journal of Economic Perspectives*, 2011
- **\*Camerer, Loewenstein, & Prelec**, “How Neuroscience Can Inform Economics,” *Journal of Economic Literature*, 2005
- **Koenigs & Tranel**, “Irrational Economic Decision-Making After Ventromedial Prefrontal Damage: Evidence from the Ultimatum Game,” *Journal of Neuroscience*, 2007.
- **\*Kuhnen & Knutson**, “The Neural Basis of Financial Risk Taking,” *Neuron*, 2005.
- **Sanfey, Rilling, Aronson, Nystrom & Cohen**, “The Neural Basis of Economic Decision Making in the Ultimatum Game,” *Science*, 2003.
- **\*Tom, Sabrina M., Craig R. Fox, Christopher Trepel, and Russell A. Poldrack**, The Neural Basis of Loss Aversion in Decision-Making under Risk, *Science*, January 2007, 315 (5811), 515518.

#### **Part VI: Field Experiments**

- **Harrison and List**, “Field Experiments,” *Journal of Economic Literature*, 2004, p. 10091016
- **List**, “Do Explicit Warnings Eliminate the Hypothetical Bias in Elicitation Procedures? Evidence from Field Auctions for Sports cards,” *The American Economic Review*, 2001

#### **Students who successfully complete this course will:**

1. Understand experimental design
2. Understand why economists use economics experiments
3. Be aware of Institutional Review Board requirements for conducting experiments using human subjects
4. Be familiar with some of the common tools and tasks that experimental economists use to conduct experiments, such as, the dictator game, the ultimatum game, the beauty contests, and instruments to measure risk and competitive preferences
5. Be familiar with some important empirical regularities found in economics experiments, for example: risk aversion, ambiguity aversion, loss aversion, and unstable preferences.
6. Be able to effectively critique an economics experiment