

Course Syllabus

INSTRUCTOR	Professor Todd Rogers
FACULTY ASSISTANT	Catherine Kearns: Rogers.Decisions@gmail.com
CLASS MEETINGS	Monday and Wednesday Section A 8:45-10:00 AM – (L140 though likely to change) Section B 1:15-2:30 PM – (LAND) Course Shopping: MLD-304A Friday 1/22 8:45-10:00 L140 MLD-304B Friday 1/22 1:15-2:30 LAND
OFFICE HOURS	Wednesday 3:30 – 4:30 PM in Belfer 112 Please schedule time on Canvas or please email Catherine Kearns at Rogers.Decisions@gmail.com to propose another time
OFFICE LOCATION	Belfer Hall 112
EMAIL	Rogers.Decisions@gmail.com
PREREQUISITES	No advanced mathematical training is required for this course, although having taken an introductory probability/statistics course may be useful.
COURSE ASSISTANTS	Phil Ames Victoria Jones Kate Philips To contact them email Rogers.Decisions@gmail.com

1. Overview

1.1 Background

Over the last 30 years, psychologists and economists have joined forces to study how people process information and actually make decisions, rather than how they would make decisions if they were fully rational and selfish. This research program (dubbed behavioral economics or behavioral science) has provided an understanding of how people's decisions deviate from "optimal" choices as well as the consequences of such deviations. This course is devoted to understanding the nature, causes, and implications of these limitations. The first two thirds of the course will focus on when individuals make decisions that deviate from the predictions of economics, and the final third of the course will focus on implications of these systematic decision biases for policy makers and managers.

1.2 Objectives

The Science of Behavior Change (MLD 304) has one central objective: to improve students' abilities to design policies and interventions that improve societal well-being. It accomplishes this by focusing on how to leverage insights about human decision making to develop interventions ("nudges"). This will be accomplished by building on the toolbox that standard economics provides for influencing behavior (namely, incentives and information) with the insights from behavioral science.

There are three additional, though secondary, goals for this class. First, it will help you better understand the science of how humans make judgments and decisions. We will review research on human thinking from social psychology, cognitive psychology, political science, organizational behavior, decision science, and economics. In the process you will also learn how randomized experiments work and why they are critical for making inferences about causal relationships.

Second, this course aims to improve the quality of your own judgments and decisions. People are poor intuitive statisticians, meaning that when they "just think" about situations for which some data or casual observations exist, they tend to make serious inferential errors, in turn leading to systematically biased decisions. We will study some errors that are particularly important for real world problems and look for easy-to-implement solutions.

Third, this course aims to increase your familiarity with randomized experiments so you can be a smarter consumer of claims that interventions cause certain outcomes. The class will be suffused with randomized experiments and we will repeatedly discuss how confident one can be that intervention X causes outcome Y.

Applications of the material covered in this course include policy design, healthcare, energy, politics, education, finance, negotiation, risk management, human resource management, and organization of teams, among others.

1.3 Who Should Not Take This Class

- If you are seeking a quantitative course about decision making, you may not like this class.
- If you can't stand psychology, you may not like this class.
- If you took many courses about social psychology as an undergraduate, you may find some course content redundant with your past training.
- This course is focused on developing interventions that are informed by behavioral science insights. If you have taken MLD-301, API-304 or MLD-335Y please carefully review this syllabus. This course differs from MLD-301 by focusing more on the development of interventions and less on underlying human psychology, though this course does discuss fundamental psychology. This course differs from API-304 by focusing more on the development of interventions and less on macro policy design, though it does discuss policy design. This course differs from MLD-335Y by exploring a wider array of interventions, contexts, and problems and is less client-focused.

1.4 Instruction Format

The course is primarily lecture based, although it includes regular activities and exercises. Class discussion is strongly encouraged.

2. Logistics

2.1 Readings

Two books are required for class:

- (1) Thaler, R.H. & Sunstein, C.R. (2008). Nudge: Improving Decisions about Health, Wealth, and Happiness. Yale University Press: New Haven, CT.
- (2) Cialdini, R. B. (2009). Influence: Science and practice (5th edition). Boston: Pearson Education.

Both are available for purchase at major online retailers and at the Harvard COOP. They are popular press books rather than textbooks.

Additional required readings are available in .pdf format from Canvas.

2.2 Grading

Final grades will be determined by aggregating performance on the following:

- | | | | |
|-------------------------|-------|-------------------------|-------|
| (1) Midterm Exam | (30%) | (2) Homework | (18%) |
| (3) Class Participation | (20%) | (4) Final Group Project | (32%) |

2.2.1 Midterm Exam (March 30)

The midterm will contain short-answer, essay and multiple choice questions and will take about an hour and fifteen minutes to complete. A sample midterm will be posted on Canvas.

2.2.2 Homework

Six homework assignments will be due throughout the term. Homework should be an individual exercise unless otherwise indicated. **Homework is always due by 12 noon on the day of class.**

2.2.3 Class Participation

Students should come to class prepared to actively discuss the concepts in the readings. The goal is to make comments that significantly advance the class discussion, so quality is more important than quantity (but some quantity is necessary for quality to be judged). To contribute successfully to class discussion, attendance is of course necessary.

A subset of the questions that will be raised in class discussions will be posted along with reading assignments on Canvas. **Please prepare for each class by reading and considering these questions posted on Canvas carefully.**

Your contribution to our learning environment is more than just your participation in class discussion. Your active engagement in the various exercises we will conduct in class, helping one another with the course material, making suggestions about the course, etc. are all also critical aspects of your contribution to the learning environment. You have the option to participate in **Twitter (*more on this later*)** dialogues about our course, and being a thoughtful participant in this space is also a way to improve your class participation.

NOTE: Some people are uncomfortable with presenting viewpoints in a large group setting. However, contributing to discussions is an important part of your career development. If there is anything that may interfere with your ability to contribute on an ongoing basis, let's discuss it sooner rather than later. I am happy to work with you off-line to develop a strategy for deepening your comfort and performance in class participation. If you are not sure where to start, please talk to me and we will figure out a plan together.

Twitter

As an extension of our in-class learning experience, we will be tweeting throughout the course using the hashtag #MLD304 and you are welcome, but not required, to participate as well. This is a particularly good space for sharing real world examples of the concepts we discuss in class. Because Twitter is not required in the course, you will not be held responsible for reading what is posted there, and you should not feel pressured to do so, but you are likely to learn more by following along.

This is also an opportunity to enhance your contribution to the class participation portion of your grade. Tweets using the class hashtags are evaluated as equivalent to an in-class contribution. Which is to say thoughtful, insightful, additive are considered most valuable. In other words, simply retweeting an article is perfectly fine and very much appreciated, but it will not boost your class participation as much as other forms of tweeting. For example, tell us how an article you are sharing parallels something we discussed in class or how it contradicts something we have learned or what tension it illustrates. Help us connect dots with your tweets.

Those of you who have a Twitter account, or are interested in making one for this class, are welcome to follow my personal twitter account (@Todd_Rogers_) and the course twitter account (@MLD304) and to use the #MLD304 hashtag when tweeting about topics related to this course. The class CA's are available for help and to answer any questions about making an account or using Twitter.

And for those of you who do not wish to get a Twitter account but who want to see what is going on, the easiest way to follow a hashtag without having an account is to use the Twitter search: <https://twitter.com/search>. You can type in a @person or #hashtag to see what is being tweeted. The only exception is if a user has marked his or her tweets (or profile) private, which might not show up in a public search. Also, you can always just Google a hashtag.

I am including a few relevant handles below, which you may find it interesting to follow. I have not screened these, but am including them because of their relevance to our class topics. If you find others that are relevant, please share them with all of us via Twitter.

Class Related: @RobertCialdini, @Opower, @StickK, @ideas42, @nudgeblog, @BrianWansink, @CFCamerer, @Atul_Gawande, @CassSunstein, @deankarlan, @dilipsoman, @DanTGilbert, @francescagino, @Katy_Milkman, @StevenLevitt, @danariely, @R_Thaler, @m_sendhil, @MaxBazerman (see: @MLD304)

2.2.4 Final Group Project

Design an Intervention to Solve a Public Policy Problem

Everyone will take part in a group project (3-4 people per group) that will involve applying an idea(s) from the first two thirds of this course to a policy problem. Groups will develop a proposed behavioral intervention to solve a public policy, managerial, or social welfare problem with a particular client and will develop an argument for why their proposal should be implemented by the organization in question. For example, a problem of interest might be high rates of worker absenteeism in a specific government agency (federal, state, or local). A behavioral intervention to address the problem might involve mailings to workers emphasizing low absenteeism rates among their peers. Your group would put together a compelling proposal designed to convince management at the agency that they should implement your intervention, detailing both how to deploy it and how to measure its effectiveness. Groups must research their client setting in detail, define the problem to be addressed, describe their proposed intervention, provide a brief review of past research that gave rise to the proposed intervention, and describe the methods that are proposed for evaluating the effectiveness of the intervention.

- **INITIAL GROUP SELECTION** (*March 2*): Please plan to sign-up with the group you plan to work with on your final project in class on March 2. All members of a group must be in the same section.
- **PROPOSAL** (*April 4*): Each group must submit a 1-page, single-spaced summary of its planned project. I will provide feedback on these project proposals. Prior to submitting this assignment each group should plan on meeting with me to talk through several ideas and choose the best one to work on.
- **PRESENTATIONS** (*April 20 and April 25*): On these two days of class, each group will have between 5 and 15 minutes (depending on the final number of groups) to present its project to the class.
- **PAPERS** (*Due April 27*): Each group must submit a 10 page, double-spaced paper (details will be provided as the semester advances).

2.3 Class Policies

Laptops and Cell Phones: Laptops and cell phones are not permitted in class.

Absences: When you are absent, the class can't benefit from your comments and insights on the material, and this will, of course, hurt your class participation grade. If you are absent, you should arrange beforehand with a classmate to take notes and pick up any assignments or handouts.

Late Assignments: Late assignments will result in a grade deduction of 1 point per day. For example, a homework assignment worth 3 points out of your total course grade of 100 points could receive a maximum score of 2 points (instead of 3) if turned in one day late.

Sections: Students are free to enroll in whichever of the two sections of MLD-304 work best for them. However, students cannot attend class in a different section than the ones in which they are enrolled.

Seating and Name Tags: Seating arrangement on February 8th, the first class after drop/add ends, becomes permanent seats. This will help a lot for tracking attendance and class participation. Please always bring your name tags to class.

Late Arrivals: Please arrive on time to avoid disrupting the class.

Email Correspondence: Please send all course emails to rogers.decisions@gmail.com. The course team monitors this address to make sure we provide timely responses. When emailing, please email at least *24 hours* before you need an answer, if you want to set up a meeting, etc.

Religious Observance: If you cannot attend a particular class because of religious reasons, please alert me ahead of time so you can make alternate plans for learning the material.

Disability: The teaching team is committed to making the class accessible for all students. Any student needing academic adjustments or accommodations because of a documented disability is requested to present his/her letter from the Accessible Education Office (AEO) and speak with Professor Rogers as soon as possible. Failure to do so may result in our inability to respond in a timely manner. All discussions will remain confidential, although AEO may be consulted to discuss appropriate implementation.

Academic Integrity and Professionalism: Needless to say, I expect full academic integrity from students in this course. At a minimum, this means no cheating on exams and assignments. All work handed in must be your own. If you collaborated with others on an assignment be transparent in reporting this. Substantial paraphrasing or borrowing of ideas without appropriate citation can be construed as plagiarism, so be sure that you understand what constitutes a breach of academic integrity. I encourage you to study together and to discuss your homework and projects. For more on HKS academic integrity visit:

<http://www.hks.harvard.edu/degrees/registrar/procedures/integrity>

3. Course Outline

#	CLASS	TOPIC	ASSIGNMENT/ READINGS DUE
	1/22/2016	Course Shopping	
1	1/25/2016	Introduction	Reading: Brooks (2011)
2	1/27/2016	Standard Economic Models of Decision Making and Experiments	Reading: Becker (1976); Levitt & Dubner (2005); Ayres (2007) Due: Homework #1
3	2/1/2016	Prospect Theory	Reading: Thaler & Sunstein (2008)
4	2/3/2016	Heuristics and Biases	Reading: Gladwell (2003); Gawande (1999)
5	2/8/2016	Fairness and Cooperation	Reading: Brafman and Brafman (2008) Due: Homework #2
6	2/10/2016	Exercise (Kidney)	Reading: The Kidney Case
	2/15/2016	No Class Meeting (President's Day)	
7	2/17/2016	Intertemporal Choice and Want/Should Conflict	Reading: Wansink (2006); Cassidy (2006) Due: Homework #3
8	2/22/2016	Commitment Devices and Mental Accounting	Reading: Green Bank of the Philippines Case; Lieber (2010)
9	2/24/2016	Follow-Through	
10	2/29/2016	Cognitive Dissonance, Confirmation Bias and Escalation of Commitment	Reading: Tavis and Aronson (2007) Due: Homework #4
11	3/2/2016	Exercise (CR)	Reading: Handout from previous class Due: List of final project group teammates
12	3/7/2016	Bounded Awareness, Overconfidence, & Bounded Ethicality	Reading: Gladwell (2009)
13	3/9/2016	Warped Beliefs	Reading: Gertner (2003) Due: Homework #5
Spring Break			
14	3/21/2016	Libertarian Paternalism and Choice Architecture	Reading: Thaler & Sunstein (2008)
15	3/23/2016	Nudging Over Time	Reading: Thaler (2015)
16	3/28/2016	Midterm Review	
17	3/30/2016	Midterm Exam	
18	4/4/2016	GUEST OR PROJECT PREP*	Reading: Cialdini (2009) begin reading Due: Final Project Proposal
19	4/6/2016	GUEST OR PROJECT PREP*	Reading: Cialdini (2009) finish reading
20	4/11/2016	Influence and Behavioral Economics in the Wild	Due: Homework #6
21	4/13/2016	Influence and Nudging in the Wild (<i>Guest Lecture: Varun Gauri, Head of Global Insights Initiative at World Bank</i>)	
22	4/18/2016	GUEST OR PROJECT PREP*	
23	4/20/2016	Final Project Presentations	
24	4/25/2016	Final Project Presentations	
25	4/27/2016	Conclusion	Due: Final Project Paper

* These three classes will involve two guest speakers and one class session devoted to preparing and developing your final projects with Professor Rogers and the CAs. One guest speaker's schedule is in flux which is causing this juggling. The two guest speakers are **Marc Laitin (Senior Director of Product Management at OPower)** and **Piyush Tantia (Executive Director of ideas42)**. For the class with Marc Laitin please read the OPOWER case posted on Canvas. For the class with Piyush Tantia please familiarize yourself with www.ideas42.org.

4. Reading Assignments

Where to Find Readings: (C) = Canvas and (B) = Book (Nudge or Influence)

CLASS 1: INTRODUCTION

January 25

(C) Brooks, D. (2011). "Who You Are," *The New York Times*, October 20, 2011.

CLASS 2: STANDARD ECONOMIC MODELS OF DECISION MAKING AND EXPERIMENTS

January 27

(C) Becker, G. (1976). The Economic Approach to Human Behavior. Chicago: University of Chicago Press. *Introduction*.

(C) Levitt, S.D. & Dubner, S.J. (2005). Freakonomics: A Rogue Economist Explores the Hidden Side of Everything. Harper Perrenial: New York. *Introduction*.

(C) Ayres, I. (2007). Super Crunchers. Bantam Books: New York, NY. *Chapter 2: Creating Your Own Data with the Flip of a Coin*.

CLASS 3: PROSPECT THEORY

February 1

(B) Thaler, R.H. & Sunstein, C.R. (2008). Nudge: Improving Decisions about Health, Wealth, and Happiness. Yale University Press: New Haven, CT. *Chapter 11: How to Increase Organ Donations*.

CLASS 4: HEURISTICS AND BIASES

February 3

(C) Gladwell, M. (2003). "Connecting the Dots: The Paradoxes of Intelligence Reform," *The New Yorker*, March 10, 2003.

(C) Gawande, A. (1999). "The Cancer Cluster Myth." *The New Yorker*, February 8, 1999.

CLASS 5: FAIRNESS AND COOPERATION*February 8*

(C) Brafman, O. & Brafman, R. (2008). Sway: The Irresistible Pull of Irrational Behavior. Broadway Books: New York, NY. *Chapter 6: In France, the Sun Revolves around the Earth.*

CLASS 6: FAIRNESS*February 10*

(C) Austin-Smith, D., Feddersen, Galinsky, A. & Liljenquist, K. (2010). The Kidney Case. Dispute Resolution Research Center, Northwestern University: Evanston, IL.

CLASS 7: INTERTEMPORAL CHOICE AND WANT/SHOULD CONFLICT*February 17*

(C) Wansink, B. (2006). Mindless Eating. Bantam Books: New York, NY. *Chapter 1: The Mindless Margin.*

(C) Cassidy, J. (2006). "Mind Games: What Neuroeconomics Tells Us about Money and the Brain." *The New Yorker*, September 18, 2006.

CLASS 8: COMMITMENT DEVICES AND MENTAL ACCOUNTING*February 22*

(C) Ashraf, Nava, Dean Karlan, and Wesley Yin. Evaluating Microsavings Programs: Green Bank of the Philippines (A). Harvard Business School Publishing: Cambridge, MA.

(C) Leiber, R. (2010). "Your Card Has Been Declined, Just as You Wanted." *New York Times*, August 13, 2010.

CLASS 9: FOLLOW-THROUGH*February 24*

No reading assigned.

CLASS 10: COGNITIVE DISSONANCE, CONFIRMATION BIAS AND ESCALATION OF COMMITMENT*February 29*

(C) Tavis, C. and Aronson, E. (2007). Mistakes Were Made (but not by me): Why We Justify Foolish Beliefs, Bad Decisions, and Hurtful Acts. Harcourt Books: USA. *Introduction & Chapter 1.*

CLASS 11: EXERCISE*March 2*

CLASS 12: BOUNDED AWARENESS, OVERCONFIDENCE, AND BOUNDED ETHICALITY*March 7*

(C) Gladwell, M. (2009). "Cocksure: Banks, Battles, and the Psychology of Overconfidence." *The New Yorker*. July 27, 2009.

CLASS 13: WARPED BELIEFS*March 9*

(C) Gertner, J. (2003). "The Futile Pursuit of Happiness," *The New York Times*, September 7, 2003.

CLASS 14: LIBERTARIAN PATERNALISM AND CHOICE ARCHITECTURE*March 21*

(B) Thaler, R.H. & Sunstein, C.R. (2008). Nudge: Improving Decisions about Health, Wealth, and Happiness. Yale University Press: New Haven, CT. *Introduction, Chapter 4: When Do We Need a Nudge?, Chapter 5: Choice Architecture, & Chapter 17: Objections.*

CLASS 15: NUDGING OVER TIME*March 23*

(C) Thaler, R. (2015). "The Power of Nudges, for Good and Bad," *The New York Times*, October 31, 2015.

CLASS 16: MIDTERM REVIEW*March 28*

No reading assigned.

CLASS 17: MIDTERM EXAM*March 30*

No reading assigned.

CLASS 18: GUEST**April 4*

(B) Cialdini, R. (2009). Influence: The Psychology of Persuasion. Harper Collins Publishing: New York, NY. *Begin reading.*

See Canvas.

CLASS 19: GUEST**April 6*

(B) Cialdini, R. (2009). Influence: The Psychology of Persuasion. Harper Collins Publishing: New York, NY. *Finish reading.*

See Canvas.

CLASS 20: INFLUENCE AND BEHAVIORAL ECONOMICS IN THE WILD*April 11*

No reading assigned.

CLASS 21: INFLUENCE AND NUDGING IN THE WILD*April 13*

No reading assigned.

CLASS 22: GUEST**April 18*

See Canvas.

CLASS 23: FINAL PROJECT PRESENTATIONS*April 20*

No reading assigned.

CLASS 24: FINAL PROJECT PRESENTATIONS*April 25*

No reading assigned.

CLASS 25: CONCLUSION*April 27*

No reading assigned.

5. Additional Reading on Selected Course Topics

Note that much of the material from these readings will be covered during class. These readings may be helpful if you would like a refresher on a given lecture topic. However, they are not required and are likely to be most useful after attending a lecture on a given topic rather than before.

EXPERIMENTS

Rogers, T. (2016). Low-Cost, High ROI Experiments in Organizations.

PROSPECT THEORY

Thaler, R.H. (1992). The Winner's Curse: Paradoxes and Anomalies of Economic Life. Princeton University Press: Princeton, NJ. *Chapter 6: The Endowment Effect, Loss Aversion, and Status Quo Bias.*

Camerer, Colin F. (2000). "Prospect Theory in the Wild: Evidence from the Field." In D. Kahneman and A. Tversky (eds.), Choices, Values, and Frames. Cambridge University Press: Cambridge, UK.

HEURISTICS AND BIASES

Bazerman, M.H. (2006). Judgement in Managerial Decision Making. John Wiley & Sons: USA. *Chapter 2: Common Biases (Pages 13-33, skip Q12).*

FAIRNESS AND COOPERATION

Kahneman, D., Knetsch J.L., and Thaler R. (1986) "Fairness as a Constraint on Profit Seeking: Entitlements in the Market," *The American Economic Review*, 76(4), p.728-741.

Thaler, R.H. (1992). The Winner's Curse: Paradoxes and Anomalies of Economic Life. Princeton University Press: Princeton, NJ. *Chapter 2: Cooperation.*

INTERTEMPORAL CHOICE AND WANT/SHOULD CONFLICT

Thaler, R.H. (1992). The Winner's Curse: Paradoxes and Anomalies of Economic Life. Princeton University Press: Princeton, NJ. *Chapter 8: Intertemporal Choice.*

Milkman, K.L., Rogers, T., & Bazerman, M.H. (2008). "Harnessing Our Inner Angels and Demons: What We Have Learned about *Want/Should* Conflicts and How that Knowledge Can Help Us Reduce Short-Sighted Decision Making," *Perspectives on Psychological Science*, Vol. 3, 324-338.

COMMITMENT DEVICES AND MENTAL ACCOUNTING

Thaler, R.H. & Sunstein, C.R. (2008). Nudge: Improving Decisions about Health, Wealth, and Happiness. Yale University Press: New Haven, CT. *Chapter 2: Resisting Temptation*

Rogers, T., Milkman, K. L., & Volpp, K. G. (2014). Commitment Devices: Using Initiatives to Change Behavior. *Journal of the American Medical Association (JAMA)*, 311(20), 2065-2066.

FOLLOW THROUGH

Rogers, T., Milkman, K.L., John, L.K., & Norton, M.I. (in press). Making the Best Laid Plans Better: How Plan-Making Increases Follow-Through. *Behavioral Science and Policy*.

BOUNDED AWARENESS, OVERCONFIDENCE, AND BOUNDED ETHICALITY

Russo, E.J. & Shoemaker, P.J.H. (2002). Winning Decisions: Getting it Right the First Time. Doubleday: New York. *Pages 74-89*.

Bazerman, M., & Chugh, D. (2006). Decisions without Blinders, *Harvard Business Review*. January 2006.

Banaji, M., Bazerman, M., & Chugh, D. (2003). How (Un)Ethical Are You? *Harvard Business Review*, 81(12), 56-64.

NUDGING OVER TIME

Rogers, T. & Frey, E. (in press). Changing Behavior Beyond the Here and Now. *Blackwell Handbook of Judgment and Decision Making*.

Frey, E., & Rogers, T. (2014). Persistence How Treatment Effects Persist After Interventions Stop. *Policy Insights from the Behavioral and Brain Sciences*, 1(1), 172-179.

Sunstein, C. R. (2014). *Why nudge?: the politics of libertarian paternalism*. Yale University Press.

WARPED BELIEFS

Tetlock, P.E., Mellers, B.A. (2011). Intelligent Management of Intelligence Agencies: Beyond Accountability Ping-Pong. *American Psychologist*, 66(6), 542-554.

SOCIAL NORMS

Thaler, R.H. & Sunstein, C.R. (2008). Nudge: Improving Decisions about Health, Wealth, and Happiness. Yale University Press: New Haven, CT. *Chapter 3: Following the Herd*.

Gerber, A.S. & Rogers, T. (2009). Descriptive Social Norms and Motivation to Vote: Everyone's Voting and so Should You. *The Journal of Politics*, 71 (1): 1-14.

CONCLUSION

Milkman, K.L., Chugh, D., & Bazerman, M. (2008). "How Can Decision Making Be Improved?" *Perspectives on Psychological Science*, 4(4): 379-383.

Soll, J.B., Milkman, K.L. , & Payne, J.W. (2015). "A User's Guide to Debiasing." In K. Gideon and G. Wu (eds.) Wiley-Blackwell Handbook of Judgment and Decision Making.