# Course Syllabus

**INSTRUCTOR**  
Professor Katy Milkman

**CLASS MEETINGS**  
Tuesdays and Thursdays in JMHH 260  
10:15-11:45 AM (690-401) and 12:00-1:30 PM (690-402)

**OFFICE HOURS**  
By appointment (arranged with the TA team via an email to: oidd690@googlegroups.com)

**CLASS EMAIL**  
oidd690@googlegroups.com

**PREREQUISITES**  
No advanced mathematical training is required for this course, although having taken an introductory probability/statistics course may be useful.

**TEACHING ASSISTANTS**  
**Lead TAs:**  
PhD Candidate Jose Cervantez ([josecerv@wharton.upenn.edu](mailto:josecerv@wharton.upenn.edu))  
PhD Candidate Rob Kuan ([rkuan@wharton.upenn.edu](mailto:rkuan@wharton.upenn.edu))

**Grading TAs:**  
Theophila Lee ([tlee313@wharton.upenn.edu](mailto:tlee313@wharton.upenn.edu))  
Jackie Law ([jlaw95@wharton.upenn.edu](mailto:jlaw95@wharton.upenn.edu))  
Tanvi Patel ([ptanvi@sas.upenn.edu](mailto:ptanvi@sas.upenn.edu))  
Ashley Wu ([ashleywu@wharton.upenn.edu](mailto:ashleywu@wharton.upenn.edu))

## 1. Overview

### 1.1 Background

Over the last 50 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) 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 managers and policy makers.

### 1.2 Objectives

The course has two main objectives. The first is improving the ability of the student (as a future manager) to influence the behavior of others, be they consumers, employees or people outside of a business relationship altogether. This will be accomplished by building on the toolbox that standard economics provides for influencing behavior (namely, incentives and information) with the insights from the aforementioned stream of research in behavioral economics.
The second objective is to improve the quality of students’ own managerial decisions, primarily by enhancing the students’ intuitive empirical abilities but also by improving their understanding of project evaluation. 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 managerial settings and look for easy-to-implement solutions. We will also touch upon ways to evaluate the effectiveness of new ideas in the workplace.

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 managerial decision making rather than consumer decision making, but the two topics have considerable overlap since understanding consumers and colleagues often requires similar insights. If you have already taken a course on consumer behavior, please look closely at this syllabus to ensure that the topics covered in OIDD 690 will be new enough to you for this course to be a good use of your time.

1.4 Instruction Format

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

2. Logistics

2.1 Readings and Listening

One book is required for class:

This book is available for purchase at all major online retailers. It is a popular press book rather than a textbook.

Additional required readings are available in .pdf format from Canvas and through Study.net (readings only available through Study.net are subject to copyright restrictions). You will also have some assigned podcast listening and video watching, and this content will be posted on Canvas.

2.2 Grading

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

1. Midterm Exam (35%)  
2. Homework (15%)  
3. Class Participation (20%)  
4. Final Group Project (30%)

2.2.1 In Person Midterm Exam (March 28th)
The midterm will contain short-answer, essay and multiple-choice questions and will take about an hour and fifteen minutes to complete in class. A sample midterm will be posted on Canvas.

2.2.2 Homework

Five homework assignments will be due throughout the term. Homework should be an individual exercise unless otherwise indicated. Homework is always due by 9:00 am on the day of class unless otherwise noted on the syllabus or Canvas.

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. I’ll track attendance manually at the start of each class, so please arrive on time.

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.

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. I will cold call. If you are unprepared for class on a given day, please let me know in advance, and I will not call on you. 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 offline to develop a strategy for deepening your comfort level and performance when it comes to class participation. If you are not sure where to start, please talk to me and we will figure out a plan together.

Small Group Meetings with Me

Based on the success of getting to know my students in small groups during Zoom office hours during the pandemic, I’m requiring that everyone in this class join me for a 15-minute Zoom meeting at some point in the semester to chat about the course, life, career aspirations, etc. It will just be a chance to get to know one another and ask questions in a more intimate setting than our usual large classroom. I will welcome 4-5 students to these meetings at a time.

Please sign up for a slot using the following link: https://calendly.com/oidd690/small-group-meetings

Please note that once you have signed up for a slot, you will not be able to change it in Calendly. This is because it will not be possible to accommodate everyone for slots if more than a few people
make last-minute adjustments. If an emergency arises and you will need to change your slot, please email oidd690@googlegroups.com ASAP and they will help you reschedule if possible.

2.2.4 Final Group Project

Design an Intervention to Solve a Managerial Problem

Everyone will take part in a group project (3-4 people per group) that will involve applying an idea from the first two thirds of this course to a managerial problem. Groups will develop a proposed behavioral intervention to solve a managerial problem at a particular organization and will develop an argument for why their proposal should be implemented by the organization in question. For example, a managerial problem of interest might be high rates of worker absenteeism in a specific US manufacturing facility. 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 manufacturing company that they should implement your intervention and detailing both how to deploy it and how to measure its effectiveness. Groups must research their managerial 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.

• GROUP SELECTION (March 12th): Please plan to sign-up on Canvas with the group you plan to work with on your final project by March 12th.

• PROPOSAL (Due March 21st): Each group must submit a 1-page, single-spaced summary of their planned project. Feedback will be provided on these project proposals. Prior to submitting this assignment each group should plan on contacting a course TA to share several ideas and get feedback on the best one to pursue.

• PRESENTATION SLIDES (Due April 10th): Each group must submit the slides that will be used for their final presentation on Canvas by 3PM on April 10th.

• PRESENTATIONS (April 11th & 16th): On these two days of class, each group will have between 5 and 10 minutes (depending on the final number of groups) to present their project to the class.

• PAPERS (Due April 18th): Each group must submit an 8-page, double-spaced paper providing a description of their project.

2.3 Class Policies

Seat Assignments: You will have the opportunity to select your seat on the first day of class; that seat will be yours forever after. Please always sit in your selected seat and arrive no later than the start of class to ensure your class participation is accurately tracked. The seating chart will be posted on Canvas in case you forget the seat you’ve selected.

Absences: Absences for reasons beside illness hurt your class participation grade. If you have an emergency and need to miss a class, please:
• Submit a 100-word essay with observations/questions that you would have liked to raise had you been there within 24 hours of the class you missed to oidd690@googlegroups.com w/ subject line “[FirstName LastName DateOfClassMissed Makeup Essay]”.

• You may use this option once this semester for an absence that isn’t due to illness without any impact on your participation grade. If you are ill, please also follow this procedure.

• After you submit your 100-word essay, you will be granted access to the recording of the class you missed. You will have only 1 week from the date of a missed class to access the class recording on Canvas (after that week, your access to the recording will expire).

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.

Late Arrivals: Please arrive on time to avoid disrupting the class and to ensure your participation is accurately tracked.

Switching Sections: You should stay in your assigned section as this helps build community within the class and is easier for grading. It’s possible that you can attend another session once or twice during the semester if you have a scheduling issue, but it shouldn’t happen frequently. If you do plan to attend another session, please email oidd690@googlegroups.com in advance.

Email Correspondence: Please direct all class-related emails to oidd690@googlegroups.com. In order to make sure that you get any information you need well before deadlines, please email at least 24 hours before you need an answer on weekdays, and do not expect replies on weekends.

AI Policy: Within this class, you are welcome to use AI models (ChatGPT, GPT, DALL-E, Stable Diffusion, MidJourney, GitHub Copilot, and anything after) in a totally unrestricted fashion, for any purpose, at no penalty. However, you should note that all large language models still have a tendency to make up incorrect facts and fake citations; code generation models have a tendency to produce inaccurate outputs; and image generation models can occasionally come up with highly offensive products. You will be responsible for any inaccurate, biased, offensive, or otherwise unethical content you submit regardless of whether it originally comes from you or an AI program. If you use an AI program, its contribution must be acknowledged in the assignment; you will be penalized for using an AI program without acknowledgement. Having said all these disclaimers, the use of an AI program is encouraged, as it may make it possible for you to submit assignments with higher quality, in less time. The university's policy on plagiarism still applies to any uncited or improperly cited use of work by other human beings, or submission of work by other human beings as your own. Note that all assignments in this class are designed to support your learning, and if you merely copy and paste assignments into an AI tool and then unthinkingly copy and paste its answers to submit as your coursework, you are cheating yourself out of a learning opportunity. If you decide to use chatGPT (or another tool) on any assignment, please add one short paragraph at the end of the assignment (which will not count against your word count) and describe how and for what purpose you used it (e.g., include the prompts you used).
3. Course Outline

<table>
<thead>
<tr>
<th>#</th>
<th>CLASS</th>
<th>TOPIC</th>
<th>ASSIGNMENT/ READINGS DUE</th>
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<tbody>
<tr>
<td>1</td>
<td>January 16th</td>
<td>Introduction</td>
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<td></td>
<td>Listening: Choiceology (2022)</td>
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<td>Due: Homework #1</td>
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<td>3</td>
<td>January 23rd</td>
<td>Prospect Theory I</td>
<td>Listening: Choiceology (2019)</td>
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<td>4</td>
<td>January 25th</td>
<td>Prospect Theory II + Heuristics and Biases I</td>
<td>Reading: Johnson (2021)</td>
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<td>Listening: People I Mostly Admire (2021)</td>
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<td>5</td>
<td>January 30th</td>
<td>Heuristics and Biases II</td>
<td>Reading: Duke (2018); Gladwell (2003); Gawande (1999)</td>
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<td>Due: Homework #2</td>
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<td>6</td>
<td>February 1st</td>
<td>Fairness I</td>
<td>Reading: Brafman and Brafman (2008); Thaler (2020)</td>
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<td>7</td>
<td>February 6th</td>
<td>Fairness II</td>
<td>Case: The Kidney Case</td>
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<td>Due: Kidney Case votes (by 5 pm on 2/5)</td>
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<td>8</td>
<td>February 8th</td>
<td>Social Norms and Conformity</td>
<td>Reading: OPower</td>
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<td>Listening: Choiceology (2023)</td>
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<td>Due: Homework #3</td>
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<td>9</td>
<td>February 13th</td>
<td>Intertemporal Choice and Commitment Devices</td>
<td>Case: Evaluating Microsavings Programs</td>
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<td>Due: Create a Commitment on StickK.com</td>
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<td>10</td>
<td>February 15th</td>
<td>Mental Accounting &amp; Goal Setting</td>
<td>Reading: Scheiber (2017)</td>
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<td>Listening: Choiceology (2019)</td>
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<td>11</td>
<td>February 20th</td>
<td>Follow-Through &amp; Habit-Formation</td>
<td>Reading: Milkman (2021); Duhigg (2012)</td>
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<td>Due: Homework #4</td>
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<td>12</td>
<td>February 22nd</td>
<td>Choice Architecture and Nudging</td>
<td>Reading: Thaler &amp; Sunstein (2021)</td>
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<td>Due: Discussion sign-ups (by 3 pm on 2/21)</td>
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<td>13</td>
<td>March 12th</td>
<td>Cognitive Dissonance, Confirmation Bias and Escalation of Commitment</td>
<td>Reading: Tavris and Aronson (2007)</td>
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<td>Listening: Next Big Idea Club (2022)</td>
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<td>Due: List of Final Project Group Teammates</td>
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<td>14</td>
<td>March 14th</td>
<td>The Challenger Launch Decision</td>
<td>Case: The Challenger Launch Decision</td>
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<td>15</td>
<td>March 19th</td>
<td>Bounded Awareness</td>
<td>Reading: Gladwell (2009)</td>
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<td>Listening: Next Big Idea Club (2020)</td>
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<td>16</td>
<td>March 21st</td>
<td>Diversity, Equity and Inclusion at Work</td>
<td>Reading: Chugh (2018)</td>
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<td>Case: Increasing Gender Diversity in the Boardroom</td>
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<td>Due: Final Project Proposal</td>
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<td>17</td>
<td>March 26th</td>
<td>Midterm Review (Optional)</td>
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<td>18</td>
<td>March 28th</td>
<td>Midterm Exam in Person During Class</td>
<td>Prepare: Bring a calculator to class</td>
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<td>19</td>
<td>April 2nd</td>
<td>Influence and Nudging at ideas42 (Guest: Piyush Tantia, Chief Innovation Officer, ideas42)</td>
<td>Reading: Cialdini (2001)</td>
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<td>Watching: Influence Videobook</td>
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<td>Prepare: Familiarize yourself with ideas42.org</td>
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<td>20</td>
<td>April 4th</td>
<td>Influence and Nudging in Government and at Google</td>
<td>Listening: Freakonomics (2016)</td>
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<td>Due: Homework #5</td>
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<td>21</td>
<td>April 9th</td>
<td>Influence and Nudging at Humu and Atlassian</td>
<td>Due: Homework #5</td>
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<td>22</td>
<td>April 11th</td>
<td>Final Project Presentations</td>
<td>Due: Final Project Presentation Slides (by 3 pm on 4/10)</td>
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<td>23</td>
<td>April 16th</td>
<td>Final Project Presentations</td>
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<td>24</td>
<td>April 18th</td>
<td>Conclusion</td>
<td>Listening: Freakonomics (2016)</td>
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<td>Due: Final Paper</td>
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4. Reading Assignments

Note: This schedule is subject to change based upon actual progress in class. New versions of the schedule, if any, will be posted on Canvas.

Where to Find Readings: (C) = Canvas, (S) = Study.net, and (B) = Book (Nudge)

CLASS 1: INTRODUCTION
January 16th

No assigned reading

CLASS 2: STANDARD ECONOMIC MODELS OF DECISION MAKING AND EXPERIMENTS
January 18th


(C) HHS Video (2017). Explaining Randomization in Clinical Trials. Watch up to minute 6:35.


CLASS 3: PROSPECT THEORY I
January 23rd


CLASS 4: PROSPECT THEORY II & HEURISTICS AND BIASES I
January 25th


CLASS 5: HEURISTICS AND BIASES II
January 30th


CLASS 6: FAIRNESS I
February 1st


CLASS 7: FAIRNESS II
February 6th


CLASS 8: SOCIAL NORMS AND CONFORMITY
February 8th


CLASS 9: INTERTEMPORAL CHOICE AND COMMITMENT DEVICES
February 13th


CLASS 10: MENTAL ACCOUNTING & GOAL SETTING
February 15th


CLASS 11: FOLLOW-THROUGH & HABIT FORMATION
February 20th


**CLASS 12: CHOICE ARCHITECTURE AND NUDGING**  
*February 22nd*


**CLASS 13: COGNITIVE DISSONANCE, CONFIRMATION BIAS AND ESCALATION OF COMMITMENT**  
*March 12th*


(C) Griscom, Rufus. (Host). *The Next Big Idea* (2022, October 6). *Quit: Why You Have to Give Up if You Want to Get Ahead: With Guest Annie Duke* [Audio Podcast]

**CLASS 14: THE CHALLENGER LAUNCH DECISION**  
*March 14th*


**CLASS 15: BOUNDED AWARENESS**  
*March 19th*


**CLASS 16: DIVERSITY, EQUITY AND INCLUSION AT WORK**  
*March 21st*


CLASS 17: MIDTERM REVIEW  
_March 26th_  
No reading assigned.

CLASS 18: MIDTERM EXAM IN CLASS  
_March 28th_  
No reading assigned. Bring a calculator to class.

CLASS 19: INFLUENCE AND NUDGING AT IDEAS42  
_April 2nd_  
(C) Cialdini, R. “Influence: The Psychology of Persuasion LitVideoBook.”  
[https://litvideobooks.com/influence](https://litvideobooks.com/influence)  
Visit and familiarize yourself with [www.ideas4.org](http://www.ideas4.org)

CLASS 20: INFLUENCE AND NUDGING IN GOVERNMENT AND AT GOOGLE  
_April 4th_  
(C) Dubner, S. (Host). _Freakonomics_ (2016, November 2).  
_The White House Gets into the Nudge Business_ [Audio Podcast].

CLASS 21: INFLUENCE AND NUDGING IN THE WILD III  
_April 11th_  
No reading assigned.

CLASS 22: FINAL PROJECT PRESENTATIONS  
_April 13th_  
No reading assigned.

CLASS 23: FINAL PROJECT PRESENTATIONS  
_April 18th_  
No reading assigned.

CLASS 24: CONCLUSION  
_April 20th_  
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.

PROSPECT THEORY


HEURISTICS AND BIASES


FAIRNESS AND COOPERATION


SOCIAL NORMS


INTERTEMPORAL CHOICE


COMMITMENT DEVICES AND MENTAL ACCOUNTING


BOUNDED AWARENESS, OVERCONFIDENCE, AND BOUNDED ETHICALITY


CONCLUSION

