

## Behavioral Economics & Behavioral Operations Management

*M-W 2:10pm-4:30pm in R0210*

**Professor:** Steve Leider

**Office:** R4424

**Email:** [leider@umich.edu](mailto:leider@umich.edu)

**Phone:** (734) 615-4183

**Office Hours:** T, Th 10:00-11:30am & by appointment

### Course Description

Behavioral economics combines lessons from psychology and economics to study how people process information and make decisions as employees, managers and consumers. Behavioral operations management applies those insights to managing business operations. These fields have provided an understanding of how people's decisions deviate from "optimal" (rational and selfish) choices, as well as the consequences of such deviations in management and the marketplace. This course is devoted to understanding the nature, causes and implications of these deviations. We will then consider how (a) managers and policy makers can intervene to improve decision making and outcomes and (b) how markets are organized around exploiting or remedying deviations from rational decision-making.

### Learning Objectives

This course has three main objectives:

First, after completing this course, students will be able to identify when a behavioral factor we discuss may influence their own or others' decisions; and will understand why a policy, process or market has been instituted around that factor.

Second, this course will improve the abilities of the student (as a future manager) to influence the behavior of others (co-workers, consumers, etc.), particularly by identifying ways to intervene to encourage better decisions and better outcomes. Similarly, will empower students with easy-to-apply tools to recognize biases in and improve their own own decision making.

Third, this course will improve students' intuitive empirical abilities and understanding of how to evaluate a policy or program. People are often poor intuitive statisticians, leading to inferential errors and biased decisions. In learning about the foundational behavioral research the course will elucidate how we know what we know, and how to evaluate the effectiveness of new ideas in the workplace.

### Relationship to other Ross Courses

This course is focused on managerial decision making rather than consumer decision making, which is the focus of MKT613. Both topics have some overlap, particularly in the fundamental psychology, since understanding consumers and colleagues often requires similar insights. However, the applications that this course will connect those insights to (improved managerial decision-making and understanding the structure of markets organized around irrationality) are

quite different. This course should nicely complement other Ross courses on behavior and decision making.

**Required Course Materials**

The required readings will be included in the course pack or posted to the course site on Canvas.

Many of the readings are chapters from several excellent books aimed at a broad audience. I encourage interested students who want a broader discussion of the issues we discuss to pick up one or more:

- Thinking Fast and Slow (Daniel Kahenman)
- Nudge (Richard Thaler and Cass Sunstein)
- Misbehaving (Richard Thaler)
- Predictably Irrational and The Upside of Irrationality (Dan Ariely)

**Grades and Deliverables**

The course grade will be determined as follows:

Class participation	20%
Homework assignments (individual)	30%
Final Project (Presentation and Paper)	50%

**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. To contribute 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 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.

**Classroom Device Policy**

*Laptop computers, tablets, mobile phones:* The use of these devices are not allowed in the classroom when class is in session **except** for times the instructor asks students to bring a laptop for in class exercises that are part of the TO 635 learning experience.

*Policy rationale:* By staying focused on operations course material during class meetings, students will engage more actively with the classroom learning experience. This will increase the quality of learning and the value of the Michigan Ross MBA.

### Problem Set Assignments (Individual)

Four homework assignments will be due throughout the term. Homework will be an **individual** exercise unless otherwise indicated. Homework is always **due by Noon on the day of class**, and will be submitted via Canvas.

### Final Project (Group)

*Design an Intervention to Solve a Managerial Problem:* The Final Project allows students to apply the behavioral concepts they learned to a managerial setting of interest (chosen by the students). Groups (3-4 students) will develop a behavioral intervention to solve a managerial problem at a particular organization. A central part of this project is to develop an argument for why their proposal should be implemented by the organization in question. 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.

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. In this example, the group would put together a compelling proposal designed to convince management at the manufacturing company that they should implement the proposed intervention and detailing both how to deploy it and how to measure its effectiveness.

- PRELIMINARY GROUP SELECTION (March 28th): Sign-up online with the group you propose to work with on your final project by March 28<sup>th</sup>.
- MEETING WITH INSTRUCTOR (March 28<sup>th</sup> –April 4<sup>th</sup>): Prior to submitting this assignment each group should schedule a meeting with the instructor to talk through several ideas and choose the best one to work on.
- PROPOSAL (Due April 10th): Submit a 1-page, single-spaced summary of the planned project. The instructor will provide additional feedback on these project proposals.
- PRESENTATIONS (April 23rd): Each group will have between 10 and 20 minutes (depending on the final number of groups) to present their project to the class.
- PAPERS (Due April 29th): Each group must submit a 10 page, double-spaced paper on their project. The paper should describe the managerial setting, define the problem, give a detailed proposal of the behavioral intervention, briefly summarize the relevant research supporting the intervention, and identify a means for evaluating the efficacy of the intervention.

#### RSB Standard Syllabus Statements

The Ross learning experience transforms students by developing the ability to think rigorously, work collaboratively, and lead effectively. The classroom and course work are the foundational components of the Ross learning and growth process. Classroom activities are central to each student's experience – an experience they share with their classmates and faculty to develop each student's knowledge and personal growth and that of the student body as whole. Due to the importance of this shared experience, students

should attend all classes, arrive on time, stay in class throughout and be prepared to contribute to the learning process for all. The expected level of engagement goes far beyond mere physical presence in class. Rather, students should come to each class having read all material, prepared all assignments, and ready to share their insights, thoughts and intellectual struggles with their classmates. Students should remain engaged and attentive throughout class, both for their own learning and in respect to the rest of the Ross community. Violations of these expectations will be reflected by reductions of the class participation grade as well as other penalties the faculty may view as appropriate.

#### Academic Honor Code:

This course will be conducted in strict conformity with the Academic Honor Code because personal integrity and professionalism are core values of the Ross community. The Code and related procedures can be found at <http://www.bus.umich.edu/Academics/Resources/communityvalues.htm>. The site also contains comprehensive information on how to be sure that you have not plagiarized the work of others. Claimed ignorance of the Code and related information appearing on the site will be viewed as irrelevant should a violation take place. Non-Ross students taking the course should also familiarize themselves with the Code as they will be subject to the Code as well while in this course.

#### Special Considerations:

The University of Michigan is committed to providing equal opportunity for participation in all programs, services and activities. Students wishing to receive testing accommodations must register with the UM SSD ([Services for Students with Disabilities](#)) as soon as possible. Students must then submit their Verified Individualized Services and Accommodations (VISA) form via online web form as early as possible, but **no later than two weeks prior to the test or quiz for which accommodations are requested.**

Requests only need to be submitted once during your academic career at Ross. If you have already received accommodations you do not need to resubmit your paperwork. For NEW accommodation students, requests must be sent using the [Accommodations Request form](#) and must include:

- a scanned or photographed copy of the VISA form
- your name
- the classes and related section numbers

All requests must be made via the web form. Questions can be directed to the Accommodations Coordinator at [RossAccommodationsCoordinator@umich.edu](mailto:RossAccommodationsCoordinator@umich.edu).

In rare cases, the need for an accommodation arises after the two-week deadline has passed (for example, a broken wrist). In these cases, the student should still contact SSD and the Ross Accommodations Coordinator at [RossAccommodationsCoordinator@umich.edu](mailto:RossAccommodationsCoordinator@umich.edu), however, due to logistical constraints we cannot guarantee that an accommodation can be made after the two-week deadline has passed.

#### Student Well-Being:

As a student, you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The University of Michigan is committed to advancing the mental health and wellbeing of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. You can learn more about the broad range of confidential mental health services available on campus via [www.umich.edu/~mhealth](http://www.umich.edu/~mhealth).

The Ross School of Business has a Counseling and Psychological Services (CAPS) Embedded Counselor available to its students. Embedded Counselors are located in school/college building and services are tailored to the school's climate. For more information, please visit [caps.umich.edu/caps-embedded-model](http://caps.umich.edu/caps-embedded-model). To schedule, please email Julie Kaplan, LMSW at [jrkaplan@umich.edu](mailto:jrkaplan@umich.edu). You may also consult University Health Services (UHS) at (734) 764-8320 and <https://www.uhs.umich.edu/mentalhealthsvcs>, or for alcohol or drug concerns, see [www.uhs.umich.edu/aodresources](http://www.uhs.umich.edu/aodresources).

## **Class Topics and Readings**

(See also the summary grid on the last two pages of the syllabus)

### **Mar 13 – Introduction // How Do We Change Behavior?**

**Applications:** Understanding data from the lab and the field, Implementing operational improvements

**Readings:** Brooks, D. (2011). “Who You Are,” The New York Times, October 20, 2011.

Soman, D. (2015) “A Lawyer, an Economist, a Marketer, and a Behavioral Scientist Go into a Bar...” The Psych Report, Oct. 21, 2015

Commonwealth Bank of Australia: Unbanklike Experimentation, HBS Case #9-619-018, Harvard Business School Press

### **Mar 18 – Risk and Decision Making // Prospect Theory**

**Applications:** Loss aversion and financial incentives, insurance uptake, endowment effect

**Readings:** Kahneman, D. (2011) Thinking Fast and Slow Ch. 25 “Bernoulli’s Errors” & Ch. 26 “Prospect Theory”

### **Mar 20 – How We Form Beliefs // Forecasting and Planning**

**Applications:** Communicating risks, effective forecasting processes, incorporating decision support

**Readings:** Thaler, R. and Sunstein, C. (2009) Nudge Ch. 1 “Biases and Blunders”

Kahneman, D. (2011) Thinking Fast and Slow Ch. 18 “Taming Intuitive Predictions”

Frick, W. (2018). “3 Ways to Improve Your Decision Making,” Harvard Business Review, Jan 22, 2018.

### **Mar 25 – Overconfidence & Motivated Reasoning// Markets Driven By Beliefs**

**Applications:** Entering Competition/Entrepreneurship, CEO behavior, Media markets

**Readings:** Lovallo, D., and D. Kahneman (2003). “Delusions of Success” Harvard Business Review, 81: 56-63.

### **Mar 27 – Bounded Awareness // Markets for (In)Attention**

**Applications:** Shrouded prices, Taxes and Inattention, Digital Media Platforms, Privacy

**Readings:** D. Darlin (2006) “What the Naïve Consumers Don’t Know, Can Help You” New York Times, July 22, 2006.

Tufekci, Z. (2018) “YouTube, the Great Radicalizer” New York Times, March 10, 2018.

### **Apr 1 – Intertemporal Choice and Self-Control // Markets Based on Limited Self-Control**

**Applications:** Procrastination, Savings, Selling commitment

**Readings:** Ariely, D. (2009) Predictably Irrational Ch. 7 “The Problem of Procrastination and Self-Control”

### **Apr 3 – Making Behavioral Changes Stick // Nudges and Choice Architecture**

**Applications:** Defaults and active choice, UX for good and bad, Reminders and Social Accountability

**Readings:** Thaler, R. and Sunstein, C. (2009) Nudge Ch. 4 “When do we need a Nudge?” & Ch. 5 “Choice Architecture”

**Apr 8 – Fairness & Social Norms // Trust and Supply Chains**

**Applications:** Social influence and sustainability, Process compliance, Supply Chain collaboration

**Readings:** Thaler, R. (2015) Misbehaving Ch. 14 “What Seems Fair” & Ch. 15 “Fairness Games”

Harford, T. (2010) “The Economics of Trust,” Forbes, Jul 21, 2010

**Apr 10 – Work and Productivity // Creativity and Human Centered Design**

**Applications:** Peer effects in productivity, multitasking, specialization versus variety

**Readings:** Ariely, D. (2010) The Upside of Irrationality Ch. 2 “The Meaning of Labor”

DC Design (2017), “What Is Human Centered Design” Medium.com

**Apr 15 – Managing Service Operations // Operational Transparency**

**Applications:** Service/Queue design, Information in Service settings

**Readings:** Neo, S. (2013). “Shinkansen & its World-Class Service Management.” Globis Insights, Jul 1, 2013.

Sullivan, B. (2018) “Know Your Nuggets: Operational Transparency” People Science, July 17, 2018.

**Apr 17 – Norms, Repugnance and the Structure of Markets // Matching and Market Design**

**Applications:** Blood donation, surrogacy, Kidney exchange, Food bank resource allocation pseudo-markets

**Readings:** Cohen, P. (2008), “Economists Dissect the ‘Yuck’ Factor.” New York Time, Jan 31, 2008.

Feeding America (A), HBS Case #N9-818-130, Harvard Business School Press

<i>Class</i>	<i>Date</i>	<i>Half</i>	<i>Topics</i>	<i>Readings</i>	<i>Deliverables</i>
1	Mar 11	1 <sup>st</sup>	Introduction	Brooks (#1.1), Soman (#1.2), CBA Case (#1.3)	
		2 <sup>nd</sup>	How Do We Change Behavior?		
2	Mar 16	1 <sup>st</sup>	Risk and Decision Making	Kahneman Ch. 25 & 26 (#2.1, #2.2)	
		2 <sup>nd</sup>	Prospect Theory		
3	Mar 18	1 <sup>st</sup>	How We Form Beliefs	Thaler and Sunstein Ch. 1 (#3.1), Kahneman Ch. 18 (#3.2), Frick (#3.3)	
		2 <sup>nd</sup>	Forecasting and Planning		
4	Mar 23	1 <sup>st</sup>	Overconfidence & Motivated Reasoning	Lovallo and Kahneman (#4.1)	HW 1 Due
		2 <sup>nd</sup>	Markets Driven By Beliefs		
5	Mar 25	1 <sup>st</sup>	Bounded Awareness	Darlin (#5.1), Tufekci (#5.2)	
		2 <sup>nd</sup>	Markets for (In)Attention		
6	Mar 30	1 <sup>st</sup>	Intertemporal Choice and Self-Control	Ariely Ch. 7 (#6.1)	HW 2 Due
		2 <sup>nd</sup>	Markets based on Limited Self Control		Final Project Groups Due

<i>Class</i>	<i>Date</i>	<i>Half</i>	<i>Topics</i>	<i>Readings</i>	<i>Deliverables</i>
7	Apr 1	1 <sup>st</sup>	Making Behavioral Changes Stick	Thaler and Sunstein Ch. 3 & 5 (#7.1, #7.2)	
		2 <sup>nd</sup>	Nudges and Choice Architecture		
8	Apr 6	1 <sup>st</sup>	Fairness & Social Norms	Thaler Ch. 14 & 15 (#8.1, #8.2), Harford (#8.3)	HW 3 Due
		2 <sup>nd</sup>	Trust and Supply Chains		
9	Apr 8	1 <sup>st</sup>	Work and Productivity	Ariely Ch. 2 (#9.1), DC Design (#9.2)	Project Proposals Due
		2 <sup>nd</sup>	Creativity and Human Centered Design		
10	Apr 13	1 <sup>st</sup>	Managing Service Operations	Neo (#10.1), Sullivan (#10.2)	
		2 <sup>nd</sup>	Operational Transparency		
11	Apr 15	1 <sup>st</sup>	Norms, Repugnance and the Structure of Markets	Cohen (#11.1), Feeding America (#11.2)	HW 4 Due
		2 <sup>nd</sup>	Matching and Market Design		
12	Apr 20		Final Project Presentations		
	Apr 27				Final Paper Due