

## Economics 5350/6350 Behavioral Economics/ Psychology and Economics

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Lecture Location: GC 2560  
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**Course Description:** The neoclassical framework in economics provides a body of theory that offers rigorous, parsimonious, and falsifiable models of human behavior. Yet its qualitative predictions often do not agree with one's gut feeling about many phenomena. In actual practice, the neoclassical framework's predictions regarding people's behavior under risk and uncertainty, Bayesian updating, self-regarding preferences, emotionless deliberation, exponential discounting, unlimited cognitive abilities, unlimited attention, unlimited willpower, and frame and context independence of preferences do not mesh well with extensive experimental and empirical evidence accumulated over the last few decades. These uncovered behavioral patterns are difficult to reconcile within the typical neoclassical models.

There has been a parallel growth in rigorous theoretical models that better explain the emerging stylized facts on human behavior. These models have borrowed insights from psychology, sociology, anthropology, neuroscience, and evolutionary biology. Yet, these models maintain a distinct economic identity in their approach, rigor, and parsimony. Collectively, these models form the subject matter of *behavioral economics*, which is possibly the fastest growing and most promising area in economics.

Any falsifiable theory that replaces/modifies any of the core features of neoclassical economics with alternatives with a better empirical foundation in human behavior is a potential member of the class of behavioral economic theories if it can pass stringent empirical tests.

Consider the following quote from Gintis (2009, p. xvi) that nicely captures the problem we face in the current teaching of economics and, indeed, in the approach to economics: "Economic theory has been particularly compromised by its neglect of the facts concerning human behavior... I happened to be reading a popular introductory graduate text on quantum mechanics, as well as a leading graduate text in microeconomics. The physics text began with the anomaly of blackbody radiation,...The text continued, page after page, with new anomalies...and new, partially successful models explaining the anomalies. In about 1925, this culminated with Heisenberg's wave mechanics and Schrödinger's equation, which fully unified the field. By contrast, the microeconomics text, despite its beauty, did not contain a single fact in the whole thousand-page volume. Rather the authors built economic theory in axiomatic fashion, making assumptions on the basis of their intuitive plausibility, their incorporation of the "stylized facts" of everyday life, or their appeal to the principles of rational thought...We will see that empirical evidence challenges some of the core assumptions in classical game theory and neoclassical economics."

In behavioral economics and this course, we are interested in models that explain the evidence from the lab and the field well. In particular, we believe that economic models must pass stringent empirical tests. The

job of economic theory is to offer an ever-improving sequence of models that can explain everything that the refuted models could explain and, in addition, some new phenomena that the older models could not. I do not subscribe to the view that economic models should not be subject to stringent tests, or that they exist solely to form some intuition about a phenomenon, or tell a fable or a story, or worse, that they are to be pursued for reasons of aesthetic beauty alone.

The subject matter of behavioral economics is vast in scope. Indeed, it is even more ambitious in scope than the study of neoclassical economics. One can conceivably teach an entire year-long course on the subject. So, I hope that eventually, you would appreciate that a typical behavioral economics class barely scratches the tip of the iceberg. I hope that I can get you sufficiently excited about the subject so that you can continue to follow developments in this exciting area, which I firmly believe to be the future of economics.

I can't overemphasize the importance of engaging with the material. Every problem you solve and every lecture you attend will push you further down the road toward a better understanding of the material. This course is dense and, therefore, requires an absolute commitment on your part.

**Textbook:** Dhami, Sanjit, *The Foundations of Behavioral Economic Analysis*, The Oxford University Press; 1<sup>st</sup> edition, 2017.

Strictly speaking, I will not always follow the textbook because I am unaware of any single book on behavioral economics that serves all the purposes of an undergraduate class. The textbook is just for reference and will be helpful for some of you who would like to pursue the subject closely. Instead, I will teach from my slides, notes, and research papers. While doing so, I will indicate which chapters correspond to the material being covered in the class at that moment.

**General Readings:** Below are several articles and books you may wish to read to become better informed about the field. These articles and books are not required readings for the class.

**General Articles:**

- Bernheim, B. Douglas, Stefano DellaVigna, and David Laibson. 2018. "Handbook of Behavioral Economics." Elsevier.
- DellaVigna, Stefano. 2009. "Psychology and Economics: Evidence from the Field." *Journal of Economic Literature*.
- Thaler, R.H., 2016. "Behavioral economics: Past, Present, and Future." *American Economic Review*.
- Rabin, Matthew. 2013. "Incorporating Limited Rationality into Economics." *Journal of Economic Literature*.
- Rabin, Matthew. 2002. "A Perspective on Psychology and Economics." *European Economic Review*.
- Mullainathan, Sendhil, and Richard H. Thaler. 2000. "Behavioral Economics." National Bureau of Economic Research Working Paper 7948.
- Rabin, Matthew. 1998. "Psychology and Economics." *Journal of Economic Literature*.
- Smith, V. 1989. "Theory, Experiment, and Economics." *Journal of Economic Perspectives*.
- Rubinstein, "Dilemmas of an Economic Theorist," *Econometrica*, 2006.
- Gul and Pesendorfer, "The Case for Mindless Economics."
- Pesendorfer, "Behavioral Economics Comes of Age," 2006.
- Fudenberg, "Advances Beyond Advances in Behavioral Economics," *Journal of Economic Literature*, 2006.
- And this page: <http://web.stanford.edu/~alroth/critiques%20of%20experimental%20econ.html>

**Books:**

- Thaler, Richard, and Cass Sunstein. 2021. *Nudge: The Final Edition*. Penguin.
- Thaler, Richard. 2015. *Misbehaving: The Making of Behavioral Economics*. Norton.
- Mullainathan, Sendhil, and Eldar Shafir. 2013. *Scarcity*. Times Books.
- Kahneman, Daniel, Paul Slovic, and Amos Tversky (eds.). 1982. *Judgment Under Uncertainty: Heuristics and Biases*, Cambridge University Press.
- Kahneman, Daniel and Amos Tversky (eds.). 2000. *Choices, Values and Frames*, New York: Russell Sage Foundation: Cambridge University Press.
- Ross, Lee and Richard E. Nisbett. 1991. *The Person and the Situation: Perspectives of Social Psychology*, Philadelphia: Temple University Press.
- Cialdini, Robert B. 1993. *Influence, the Psychology of Persuasion*, New York: William Morrow Publishing Co.
- Kahneman, Daniel. 2011. *Thinking, Fast and Slow*, New York: Farrar, Straus, and Giroux.
- Bazerman, Max and Don Moore. 2012. *Judgment in Managerial Decision Making (8th Edition)*, John Wiley & Sons.

**Mathematical Proficiency:** I cannot stress enough the importance of “knowing some basic mathematics” for success in this course. By “some basic mathematics”, I mean the following:

- Algebra: solving a system of two or more linear equations with two or more unknowns; basic operations with exponents, both positive and negative; operations with  $n^{th}$  roots
- How to graph a function of a single argument/variable
- How to determine the slope value of a function
- Calculus: A function of a single argument/variable and its first- and second-order derivatives and its graphing; derivative as the slope of the curve; basic differential rules such as product rule, division rule, power rule, and total differentiation rule; polynomial functions differentiation; a multivariate function and its first-order partial derivative
- Difference between constants and variables

Note that the above list is merely suggestive, and it is *not* intended to be exhaustive by any means. If you think you need help with any of the concepts listed above, I strongly encourage you to seek help from me.

**Course Materials:** Course materials (syllabus, exams and their solutions, readings, etc.) will be posted on the Canvas course page regularly. I will also send you important emails about the class to your email address registered with the university. It’s your responsibility to check Canvas announcements and emails accordingly. Of course, I will try to alert you to such postings/notifications/announcements during the class. However, you must check Canvas and your email regularly as some of these announcements and emails may contain critical information regarding the course. You may choose to familiarize yourself with Canvas. The [Canvas Getting Started Guide for Students](#) page can be helpful in that regard.

**Course Objectives:**

- To understand critical theoretical concepts and provide deep insights into the connection between economics and psychology, sociology, political science, and anthropology.
- To understand the laboratory and field experiment methodologies.
- To learn how to evaluate economic research that uses experimental methods.
- To get a broader understanding of the fabled “economic man.”

**Learning Outcomes:**

- Know some of the major topics in behavioral economics.
- Be able to understand, analyze, and evaluate behavioral economics studies.
- Be able to understand some of the strengths and limitations of behavioral economics.
- Be able to design and evaluate an economics experiment.
- Become more able to engage in critical reasoning in economics.

**Content Overview:** The following schedule of topics is tentative and may not be taught in the sequence listed below.

**Topic 1:** Perspectives on behavioral economics, experimental economics, and basic terminologies used in the field. Introduction to the methodology of economics experiments.

**Topic 2:** Other-regarding preferences (introducing five basic games: dictator, ultimatum, trust, gift exchange, and public goods)

**Topic 3:** Models of social preferences (distributional preferences, inequality aversion, maximin preferences, intention-based models, hybrid models, etc.)

**Topic 4:** Findings on other-regarding preferences (guilt aversion, self-image, warm glow, willful ignorance, preferences for group identity, social status, etc.)

**Topic 5:** Incentives and behavior (intrinsic and extrinsic motivations, intrinsic and extrinsic incentives, applications)

**Topic 6:** Classical Decision Theory (expected utility theory, violations of expected utility theory)

**Topic 7:** Prospect Theory (endowment effect, mental accounting, loss aversion, nonexpectations-based reference point, expectations-based reference points)

**Topic 8:** Applications of the expectation-based reference point (taxi drivers, contracts as reference points, evidence from the lab and field, etc.)

**Topic 9:** Time Preferences (exponential discounted utility model, hyperbolic model, applications of procrastination and material incentives, etc.)

**Topic 10:** Coordination games (stag-hunt, minimum effort games, battle of the sexes game, market-entry games, bank-run models, Braess paradox, focal point equilibrium, etc.)

**Topic 12:** Bargaining games (Nash bargaining, multi-period ultimatum games, Rubinstein alternating offers games, information asymmetry, etc.)

**Topic 13:** Public good games (punishment, endogenous groups, social ostracizations, endogenous group formations, other variations)

**Topic 14:** Non-equilibrium or error-prone models of play in economic games (beauty contest games, quantal response equilibrium, level- $k$  model, applications)

**Topic 15:** Deception and lying aversion (intrinsic and extrinsic moral costs, size of lies, self-serving biases, other variations)

**Topic 16:** Contingent valuation and discrepancies between valuations (differences between WTA and WTP in lab and field contexts, other variations)

**Topic 17:** Social Dilemmas: institutions and institution formation.

**Topic 18:** Discrimination by gender, race, status, group identity. Gender differences in competitive preferences, gender differences in preferences for seeking credit, altruism, cooperation, lying, cheating, etc.

**Attendance:** While class attendance is not required, it is strongly recommended. Much of the learning that takes place in this course occurs during the lectures. There are slides and research papers that accompany the lectures, but they are difficult to comprehend without attending the lectures.

**Evaluation Methods and Criteria:** The following outlines the evaluation scheme that will be used in the course.

Each student must write three in-class closed-book and closed-lecture-notes midterm exams and an open-book and open-notes final exam conducted on Canvas. Each exam carries a weight of 25%. For the first three exams, students must bring their own blue-book to write the exam. All exams will be comprehensive, meaning that the syllabus for each exam will cover the entire material covered from the first day of the class up to the last class before the exam date.

Midterm exam 1: Tuesday, September 19, (in-class exam).

Midterm exam 2: Tuesday, October 17, (in-class exam).

Midterm exam 3: Tuesday, November 14, (in-class exam).

Final exam: Friday, December 15 (University determined), (conducted via Canvas; no proctoring tools such as ProctorU will be used).

My exams typically contain short answer-type questions which require you to use math and graphs, and they usually do not involve long essay-type questions. The exam dates for the midterm exams can change with reasonable notice to you. Any changes will be announced on Canvas.

At the end of the semester, your course grade will be based on the exam weights specified above and nothing else: there is no way to do “extra work” to raise your grade. To repeat: if you ask me at the end of the semester if you can do any extra work to increase your grade, the answer will be no. The way to get a good grade is to study hard for the exams. Students often tell me that they worked hard, and despite that, they did not do well on the exams. My categorical answer to such replies is: your exams will be evaluated for your demonstrated knowledge in the subject and accuracy of your answers, but you will not be assessed and graded for how hard you worked, etc.

**The Final Exam Modality (conducted online via Canvas):** The final exam will be take-home open-book and lecture notes conducted online. The final exam will be managed via Canvas. The exam will roughly follow the following procedure. Canvas would make the exam available for a pre-specified time window (say four hours or 240 minutes) on the exam date (December 15, 2023). Each student will get a total of  $X$  minutes (where  $X$  is less than or equal to four hours or 240 minutes time window) to work on the exam during that pre-specified

time window. Note that those *X* minutes will already include some additional time to compensate you for your time spent scanning all the exam pages and uploading them to Canvas. A student can log on to Canvas and access the exam and work on it anytime during this pre-specified time window. However, as soon as you access the exam for the first time, the clock would start ticking for you, and the exam time (that is, *X* minutes) would kick in from the time you first accessed the exam on Canvas. The student **MUST** read and work on the exam and upload their answer on Canvas in PDF or any readable image format (JPG, PNG). No late submission will be accepted. If you fail to submit the exam by the deadline, you will receive zero weight for the final exam. The uploaded exam should be legible. Please check if your file is readable when uploading your answer on Canvas. If your exam is not readable, I cannot ascertain whether you got an answer correct or not, and therefore, you will receive zero points for that question. Please write your name on each exam page and number all the pages. You **MUST** print the total number of pages you have used for that exam on the first page of the exam. How to convert your WORD file into a PDF: Here is an online PDF maker - <https://tools.pdfforge.org/>

Two important notes about the final exam:

- You must combine all your individual answer files into one single file and upload that single answer file to Canvas.
- Do not send me all individual answer files to my U email address.

**Missed Exams:** Students who cannot write an exam should inform me by sending me an email at least a day before the scheduled exam and must supply written evidence of their reason for missing the Exam. If the cause is an illness, a doctor's note (with the doctor's office address and phone number clearly shown) is needed. If you miss an exam because you are participating in a university-sponsored activity, I will allow you to miss the exam. Documentation for missing an exam **MUST** be provided. If you miss just one exam for a valid reason with supporting documents, your weight for that missed exam will be evenly distributed over the other three exams. If you miss exams without any supporting documents, you will receive zero score for that missed exam. If you miss more than one exam with or without supporting documents, you will receive zero score for the second missed exam. I **DO NOT** give make-up exams. All students are expected to abide by the academic code of conduct as laid out by the University available at <https://regulations.utah.edu/academics/6-400.php>

The course grade is calculated using the weights indicated above. The exams will be marked on a numerical basis, then the weighted scores are converted to letter grades. As a guide to determining standing, these letter grade equivalences will apply:

A ≥ 93%  
93% > A ≥ 90%  
90% > B+ ≥ 87%  
87% > B ≥ 83%  
83% > B- ≥ 80%  
80% > C+ ≥ 77%  
77% > C ≥ 73%  
73% > C- ≥ 70%  
70% > D+ ≥ 65%  
65% > D ≥ 60%  
60% > D- ≥ 50%

50% > E

If you have questions regarding the grading of an exam question, you must ask within **a week** from the day the exam grades are posted or the marked exam is returned to you in the class. No exceptions to this rule will be entertained.

Incompletes are not generally given for non-medical reasons.

This syllabus is meant to serve as an outline and guide for our course. Please note that I may modify it with reasonable notice to you. Any changes will be announced on Canvas.

**Cell Phone and laptop Use:** Technology can support student learning, but it can also become a distraction. Research indicates that multi-tasking (texting, surfing the Internet, using social networks) during class time can have a negative impact on learning (Clapp, Rubens, Sabharwal & Gazzaley, 2011; Ellis, Daniels, Jauregui, 2010; Hembrooke & Gay, 2003). Out of respect for your fellow learners in this class, please refrain from using laptops or mobile phones for entertainment during class and do not display any material on a laptop which may be distracting or offensive to your fellow students. Laptops may be used only for legitimate classroom purposes, such as taking notes, downloading course information from Canvas, or working on an assigned in-class exercise. Checking social media, email, texting, games, and surfing the Web are not legitimate classroom purposes. Such inappropriate laptop and mobile phone use is distracting to those seated around you.

**Participation:** This course is built on your participation. Please make all efforts to attend all classes and actively participate in the discussion. In our structured and unstructured discussions and dialogues, we will have many opportunities to explore challenging issues and increase our understandings of different perspectives. A positive learning environment relies upon creating an atmosphere where diverse perspectives can be expressed. Each student is encouraged to take an active part in class discussions and activities. Honest and respectful dialogue is expected. Disagreement and challenging of ideas in a supportive and sensitive manner is encouraged. Hostility and disrespectful behavior is not acceptable. In the time we share together over this term, please honor the uniqueness of your fellow classmates, and appreciate the opportunity we have to learn from each other. Please respect each other's opinions and refrain from personal attacks or demeaning comments of any kind. Just as we expect others to listen attentively to our own views, we must reciprocate and listen to others when they speak, most especially when we disagree with them. In this class, our emphasis will be on engaging in the mutual exploration of issues as presented in the course readings as scholars, rather than in defending points of view we have formed outside the classroom.

**Notes:**

- **Academic Code of Conduct Statement**

Cheating on exams and other forms of academic dishonesty may lead to expulsion from the class, course failure, or more severe penalties such as dismissal from the University. In accordance with University regulations. For related University policy, please refer to this link: <http://regulations.utah.edu/academics/6-400.php> (Section I). If you are caught cheating in this class, I must send a letter to your dean about that, and the letter will be put in your permanent University file. I punish cheating quite severely.

- **The Americans with Disabilities Act (ADA) Statement**

The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 801-581-5020. CDS will work with you and the

instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability Services.

- **Addressing Sexual Misconduct Statement**

Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

- **Wellness Statement**

Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources, contact the Center for Student Wellness at [www.wellness.utah.edu](http://www.wellness.utah.edu) or 801-581-7776.

- **Student Names and Personal Pronouns Statement**

Class rosters are provided to the instructor with the student's legal name as well as "Preferred first name" (if previously entered by you in the Student Profile section of your CIS account). While CIS refers to this as merely a preference, I will honor you by referring to you with the name and pronoun that feels best for you in class, on papers, exams, group projects, etc. Please advise me of any name or pronoun changes (and update CIS), so I can help create a learning environment in which you, your name, and your pronoun will be respected. If you need assistance getting your preferred name on your UIDcard, please visit the LGBT Resource Center Room 409 in the Olpin Union Building or email [bpeacock@sa.utah.edu](mailto:bpeacock@sa.utah.edu) to schedule a time to drop by. The LGBT Resource Center hours are M-F 8 AM-5 PM and 8 AM-6 PM on Tuesdays.

- **Non-Contract Note**

This syllabus is meant to serve as an outline and guide for our course. Please note that I may modify it with reasonable notice to you. I may also modify the Course Schedule to accommodate the needs of our class. Any changes will be announced in class and posted on Canvas under Announcements.

- **Safety on Campus**

The University of Utah values the safety of all campus community members. To report suspicious activity or request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit [safeu.utah.edu](http://safeu.utah.edu)

- **Student Mental Health Resources**

Rates of burnout, anxiety, depression, isolation, and loneliness have noticeably increased during the pandemic. If you need help, reach out for [campus mental health resources](#), including counseling, trainings and other support. Consider participating in a [Mental Health First Aid](#) or [other wellness-themed training](#) provided by our Center for Student Wellness and sharing these opportunities with your peers, teaching assistants and department colleagues.