040062-1: Behavioral Economics (MA)

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Summer, 2020

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Course Description

This course is designed to make you familiar with the most relevant concepts from behavioral economics. After following this course, you will be able to answer the following paradoxes:

- Why do people pay more for a diamond than for a month of water consumption even though water is more useful?
- Why are people willing to pay only a modest fee for a lottery of infinite value?
- How could the same individual gamble and buy insurance at the same time?
- Under standard economic theory rejecting a lottery offering -1.0 Euro with 50% chance and 1.1 Euro with 50% chance implies rejecting a lottery offering infinity Euros with 50% chance.
- Why do people exhibit a preference for known risks over unknown risks?
- Why do people make plans that they cannot fulfil?
- Why aren't there more tragedy of the commons?

To explain these paradoxes, you are going to get acquainted with the most relevant theories in the field. Namely rank-dependent utility theory, cumulative prospect theory, hyperbolic discounting, inequity aversion, level-k theory, and quantal response equilibrium.
To understand these alternative theories, we will also review and understand their standard economics counterparts: expected value, expected utility theory, exponential discounting utility, and Nash equilibrium.
Rather than restricting ourselves to introducing and reviewing these models through mathematical formulae, I also focus on their behavioral foundations, i.e. their axioms. For the first couple of models we will see how these foundations of preference translate into the mathematical formulae

you might be familiar with. This process makes clear that abstract concepts such as utility and (subjective) probability have an intuitive behavioral foundation.
Finally, note that my job is to convince you that the alternative theories that I present are better descriptive approximations than their standard counterparts with the support of data from experiments, data from surveys, data from economic phenomena, and your own decisions!

Required Materials

- Course notes available on Moodle.

Additional Materials

- Wakker, P. P. (2010). Prospect theory: For risk and ambiguity. Cambridge university press.
- Dhami, S. (2016). The foundations of behavioral economic analysis. Oxford University Press.
- Gilboa, I. (2009). Theory of decision under uncertainty (Vol. 45). Cambridge university press.

Prerequisites/Corequisites

Students should have completed an intermediate microeconomics course, where they gained basic knowledge on consumer theory and game theory.

Course Objectives

The first goal of the course is to familiarize students with the most relevant theories of behavioral economics: main problems with the assumptions posed by standard economics theory, evidence about the problems with these assumptions, the theories proposed by behavioral economics, and their applications. This means that, at the end of the course, students are expected to:

- Have basic knowledge about Rank-dependence, Cumulative Prospect Theory, Ambiguity Aversion, Hyperbolic Discounting and Inequity aversion and their corresponding theoretical and empirical argumentation in the academic literature.
- Be able to describe how these theories improve upon standard economic theories in terms of descriptive decision-making.

The second goal of the course is to familiarize students with modern research methods. This means that, at the end of the course, students are expected:

- To have a good understanding of standard theories in economics: expected utility, exponential discounting, and basic game theory.

The third goal of the course, in addition to obtaining knowledge about the themes and an understanding of the methods, is to develop the ability of students to think critically about these topics and to develop a critical academic attitude when reading academic studies. This means that, at the end of the course, students are expected:

- To have a critical understanding of academic papers.

Course Structure

Lecture

There will be 24 lectures in total in which the main topics of the course will be presented and some examples will be discussed. 3 lectures will discuss and solve the assignments.

Assignments

There will be three Assignments that will be used as preparation for the exams. The content of the assignments will be of similar difficulty as the examples shown in the lectures.

Exams

There will be a midterm and a final exam. The exams will cover the material discussed in lectures up until the lecture before the exam.

Update: Due to the Corona situation, these exams will be open-book and internet based exams via moodle. The exam will be more conceptual than based on calculations. This requires you to be acquainted with the material and with the big-picture message of the assignments.

Grading and Grading Policy

The typical Universitat Wien grading scale will be used. I reserve the right to curve the scale dependent on overall class scores at the end of the semester. Any curve will only ever make it easier to obtain a certain letter grade. The grade will count the assessments using the following proportions:

- **35%** of your grade will be determined by a class midterm exam.
- **35%** of your grade will be determined by a class final exam.
- **30%** of your grade will be determined by 3 homeworks (10% each).

In each of these criteria students can attain a maximum total of 100 points. To guarantee consistency, each of these criteria, as well as the final note of the course, can be converted to the University grading scheme according to the following scale:

-1: 100 points-90 points -2: 90 points-76 points -3: 75 points-60 points -4: 59 points-50 points -5: less than 50 points.

This means that to pass the course the student needs to attain at least 50% of all available points.

Course Policies

During Class

I understand that the electronic recording of notes will be important for class and so computers will be allowed in class. Please refrain from using computers for anything but activities related to the class. Eating and drinking are allowed in class but please refrain from it affecting the course. Try not to eat your lunch in class as the classes are typically active.

Attendance Policy

Attendance is expected in all lectures and exams. Valid excuses for absence will be accepted before class. In extenuating circumstances, valid excuses with proof will be accepted after class.

Policies on Incomplete Grades and Late Assignments

If an extended deadline is not authorized by the instructor or department, an unfinished incomplete grade will automatically change to a 5.

Late assignments will be accepted for no penalty if a valid excuse is communicated to the instructor before the deadline. After the deadline, assignments will be accepted for a 50% deduction to the score up to 2 days after the deadline. After this any assignments handed in will be given 0.

Academic Integrity and Honesty

Students are required to comply with the university policy on academic integrity found in the Code of Student Conduct.

Schedule

The schedule is tentative and subject to change. Each exam will test on all the material that was taught up until the exam.

Week 01, 03/02 - 03/06: Motivation (of the course) and Utility

Week 02, 03/09 - 03/13: Expected Value.

Week 03, 03/16 - 03/20: Expected Utility Theory.

Week 04, 03/23 - 03/27: Anomalies of Expected Utility and Rank-Dependence.

Week 05, 03/30 - 04/03: Cumulative Prospect theory.

Break, 04/06 - 04/10:

Break, 04/13 - 04/17:

Week 06, 04/20 - 04/24: Ambiguity Aversion and Source Dependence.

Week 07, 04/27 - 05/01: Midterm week.

Week 08, 05/04 - 05/08: Exponential Discounted Utility.

Week 9, 05/11 - 05/15: Anomalies of Exponential Discounted Utility and Hyperbolic Discounting.

Week 10, 05/18 - 05/22: Hyperbolic Discounting.

Week 10, 05/25 - 05/29: Tools of game theory and anomalies of strategic interaction.

Week 11, 06/01 - 06/05: Anomalies of strategic interaction and level k-theory.

Week 12, 06/08 - 06/12: Inequity aversion.

Week 13, 06/15 - 06/19: Other theories of social preferences.

Week 14, 06/22 - 06/26: **Final Exam**