

BEHAVIORAL ECONOMICS, FINANCE & DECISION-MAKING

IE University

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Degree course: THIRD

Semester: 1^o

Category: COMPULSORY

Number of credits: 6.0

Language: English

PREREQUISITES

FOUNDATIONS OF MICROECONOMICS, GAME THEORY, RESEARCH METHODS FOR ECONOMISTS

SUBJECT DESCRIPTION

New developments in psychology and the neurosciences, jointly with recently uncovered empirical regularities that violate economic normative model predictions, have sparked a wave of revisions to the traditional models in economics. The interdisciplinary fields of **behavioral economics**, **finance**, and **decision-making** incorporate those advancements in psychology and neuroscience to economics, explore these “anomalies” empirically and experimentally, and propose new models that can account for them. The goal is not to replace traditional economics, but to complement it. This course aims to help students master the **main findings** in these fields and explore their **applications**.

Research in behavioral economics, finance, and decision-making has significantly impacted economics. Researchers focusing on these fields have been awarded **five Nobel Prizes in Economics**. But its impact has not only been strong in academia. Behavioral research has profoundly affected **business, health, finance, policy design**, and numerous other areas.

Behavioral economics is grounded in empirical observations of human behavior, demonstrating that people do not always make what neoclassical economists consider the “rational” or “optimal” decision, even if they have available the information and tools to do so. **Behavioral finance** is the subfield of behavioral economics that focuses on how investors make financial decisions and how these choices might deviate from predicted traditional financial theory. **Behavioral decision-making** is the field that studies how decisions are made. It analyzes the affective, cognitive, and social processes humans employ to identify and choose alternatives.

This course is helpful for **anyone who makes decisions** and **investments** or **presents choices** to customers, clients, or key stakeholders. Particular emphasis will be given to the main applications of the course contents to improve personal, business, and social-policy decision-making. This course can be applied to any industry.

OBJECTIVES AND SKILLS

Behavioral research has shown that we make predictable errors when making economic decisions. If we are familiar with their causes, we can learn how to avoid them. The course's main objective is to expose you to the **main findings in behavioral research** and help you **incorporate them into your toolkit**. This knowledge can allow you to **make better decisions**, help you **understand how other people make choices**, and teach you how to **influence them**.

Objectives to be attained along the course:

- Learn the virtues and limitations of the rational actor model.
- Know when the application of behavioral economics is appropriate.
- Expose you to economic methodology to predict a wide range of behaviors.
- Avoid common mistakes made by managers, negotiators, or policymakers.
- Know the policy implications derived from the analysis and empirical results in behavioral economics.

Skills to be acquired during the course:

- Know how to use formal modeling approaches introduced in the course to solve simple illustrative problems.
- Learn how to read and understand project reports and journal articles that use the concepts and methods introduced in the course.
- Improve your pattern recognition and creativity to apply the theory in the course to personal and professional settings.

METHODOLOGY

The content of the course will be covered in **lecture** and **tutorial** sessions. For each topic, there will be reading material provided before its discussion. Before the start of the course, an updated syllabus with the reading material for each session will be uploaded on blackboard. The approximate distribution between the lecture sessions and the applied tutorial sessions will be 50/50.

LECTURES

Lectures will be led by the professor. They will cover the theoretical, empirical, and experimental foundations of the contents of the course. They will serve as an introduction to the topic and facilitate students to go deeper by providing the necessary material and familiarity with its main underpinnings. Lectures are designed to enable students to grasp the relevance of the contents of the course and discover their main applications.

TUTORIALS

Tutorial sessions are designed to cover the most relevant and groundbreaking applications of behavioral science for business, finance, and public policy. These sessions will use a tutorial methodology. This method optimizes participation and involvement. We will create groups of 3-4 people. One group will host the tutorial session every week. The hosting group is expected to cover the applications of the course material and present them in an interactive way by raising issues and provoking discussions. Students that do not host the tutorial are expected to be prepared and study the assigned material as well. More details regarding the tutorial will be given in the first session of the course.

REACTION PAPERS

Students that are not a member of the group that hosts the tutorial are required to write a reaction paper to the reading material of the corresponding topic. In the reaction paper (between 1-2 pages), students provide a personal reflection on the reading material and the contents of the week's topic. More details regarding the reaction papers will be given in the first session of the course.

CONTENTS OF THE COURSE [subject to modification]

1. Cognitive biases

People tend to be quite familiar with optical illusions but less so with the phenomenon of cognitive biases. These perceptual distortions are to our mind what optical illusions are to our visual system and can lead us to make wrong judgments or bad decisions.

2. Heuristics

It is estimated that the average adult makes several thousands of decisions per day. Heuristics are a class of cognitive strategies that use little information and just a few easy information-processing steps to help us make faster decisions. Sometimes, but crucially not always, heuristics can hinder our ability to make optimal choices.

3. Bounded rationality

Bounded rationality asserts that people do not always behave rationally, making the optimal decision according to their preferences and budget as the normative model would prescribe, as they are limited by some factors such as cognitive limitations, imperfect information, and time constraints.

4. Time preference and self-control

Intertemporal choices are all over: borrowing, savings, default, diet, exercise, and human capital accumulation. The assumption in the normative economics models is that time preferences are linear. There are many psychology research studies that suggest that the normative model has little empirical support.

5. Context effects

Context effects studies how choices deviate from utility maximization principles as a function of how choices are presented in terms of their framing, sequence, composition, social, and situational factors.

6. Emotions and decision-making

A decade ago, the Nobel Laureate in Economics Herbert Simon already suggested that emotions influence or can ultimately determine the outcome of many of our daily decisions. To make the optimal, most objective decisions, we must learn about the role of emotions and their effect on our and other people's decision-making.

7. The role of experience and learning in decision-making

A recent stream of empirical research has shown the critical role of personal experiences. For instance, firms run by CEOs who have experienced distress have less debt and save more cash than other comparable firms, households that witness bad economic times have more pessimistic beliefs about future stock returns, or after floods or earthquakes, people are more likely to buy insurance against such events even though the probability of occurrence of such events does not change.

8. Choice architecture / Nudging

Choice architecture is a term coined by Richard Thaler and Cass Sunstein and refers to the practice of influencing choice by "organizing the context in which people make decisions". A decade of research shows that choice architecture interventions successfully promote behavior change across key behavioral domains, populations, and locations.

9. Neuroeconomics

Neuroeconomics studies the neural mechanisms underlying economic decision-making. It applies the latest technological advances to study our brains and how we make decisions.

10. Investor behavior

Investor behavior documents and tries to understand how investors, both amateurs, and professionals, make their portfolio choices.

11. Anomalies in Finance and the limits to arbitrage

"Anomalies" in Finance are empirical patterns not explained by the traditional financial theory. The limits of arbitrage may explain why these classic theories may not hold on certain occasions.

12. Negotiation

Behavioral scientists study what determines the outcomes of negotiations. We will learn scientifically proven methods to make you a better negotiator.

13. Happiness

Happiness research is devoted to theoretical and applied advancements in all areas of well-being. We will cover the most recent and significant contributions to this behavioral field.

In the below table you can find the teaching methodology by time dedication.

| Teaching methodology | Weighting | Estimated time a student should dedicate to prepare for and participate in |
|---------------------------|-----------|--|
| Lectures | 26.67 % | 40 hours |
| Discussions | 6.67 % | 10 hours |
| Exercises | 20.0 % | 30 hours |
| Group work | 20.0 % | 30 hours |
| Other individual studying | 26.67 % | 40 hours |
| TOTAL | 100.0 % | 150 hours |

PROGRAM

SESSION 1 (LIVE IN-PERSON)

Introduction to the field and tour through the course.

SESSION 2 (LIVE IN-PERSON)

Lecture 1: Cognitive biases.

SESSION 3 (LIVE IN-PERSON)

Tutorial 1: Cognitive biases.

SESSION 4 (LIVE IN-PERSON)

Lecture 2: Heuristics.

SESSION 5 (LIVE IN-PERSON)

Tutorial 2: Heuristics.

SESSION 6 (LIVE IN-PERSON)

Lecture 3: Bounded rationality.

SESSION 7 (LIVE IN-PERSON)

Tutorial 3: Bounded rationality.

SESSION 8 (LIVE IN-PERSON)

Lecture 4: Time preference and self-control.

SESSION 9 (LIVE IN-PERSON)

Tutorial 4: Time preference and self-control.

SESSION 10 (LIVE IN-PERSON)

Lecture 5: Context effects and social norms.

SESSION 11 (LIVE IN-PERSON)

Tutorial 5: Context effects and social norms.

SESSION 12 (LIVE IN-PERSON)

Lecture 6: Emotions and decision-making (DM).

SESSION 13 (LIVE IN-PERSON)

Tutorial 6: Emotions and decision-making (DM).

SESSION 14 (LIVE IN-PERSON)

Lecture 7: The role of experience and learning in DM.

SESSION 15 (LIVE IN-PERSON)

Tutorial 7: The role of experience and learning in DM.

SESSION 16 (LIVE IN-PERSON)

Lecture 8: Choice architecture / Nudging.

SESSION 17 (LIVE IN-PERSON)

Tutorial 8: Choice architecture / Nudging.

SESSION 18 (LIVE IN-PERSON)

Lecture 9: Neuroeconomics.

SESSION 19 (LIVE IN-PERSON)

Tutorial 9: Neuroeconomics.

SESSION 20 (LIVE IN-PERSON)

Lecture 10: Investor behavior.

SESSION 21 (LIVE IN-PERSON)

Tutorial 10: Investor behavior.

SESSION 22 (LIVE IN-PERSON)

Lecture 11: Anomalies in Finance and the limits to arbitrage.

SESSION 23 (LIVE IN-PERSON)

Tutorial 11: Anomalies in Finance and the limits to arbitrage.

SESSION 24 (LIVE IN-PERSON)

Lecture 12: Negotiation.

SESSION 25 (LIVE IN-PERSON)

Tutorial 12: Negotiation.

SESSION 26 (LIVE IN-PERSON)

Lecture 13: Happiness.

SESSION 27 (LIVE IN-PERSON)

Tutorial 13: Happiness.

SESSION 28 (LIVE IN-PERSON)

Lecture 14: Current trends in behavioral research.

SESSION 29 (LIVE IN-PERSON)

Review Session

SESSION 30 (LIVE IN-PERSON)

Final Exam

BIBLIOGRAPHY

Recommended

- Dan Ariely. (2009). *Predictably Irrational: The Hidden Forces that Shape Our Decisions*. HarperCollins. ISBN 0007256531 (Printed)
- Kahneman, D. (2011). *Thinking, fast and slow*. Penguin Books. ISBN 0374533555 (Printed)
- Lewis, M. (2017). *The Undoing Project: A Friendship that Changed the World*. Penguin Books. ISBN 0141983043 (Printed)
- Montier, J. (2010). *The Little Book of Behavioral Investing: How not to be your own worst enemy*. John Wiley & Sons Inc. ISBN 0470686022 (Printed)
- Shiller, R.J., Akerlof G.A. (2010). *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism*. Princeton University Press. ISBN 9780691145921 (Printed)
- Thaler, R.H. (2015). *Misbehaving: The making of behavioral economics*. Penguin Books. ISBN 9781846144035 (Printed)

- Thaler, R.H., Sunstein, C.R. (2009). *Nudge: Improving decisions about health, wealth, and happiness*. Penguin Books. ISBN 0141040017 (Printed)

EVALUATION CRITERIA

ORDINARY EVALUATION

Your final grade in the course will be based on a combination of different items described in the following table:

| Criteria | Percentage | Comments |
|---------------------|------------|-----------------|
| Class Participation | 10 % | Participation |
| Individual Work | 20 % | Reaction Papers |
| Group Presentation | 20 % | Tutorial |
| Final Exam | 50 % | Final Exam |

A. CLASS PARTICIPATION (10%)

Two main criteria will be used in reaching judgment about your class participation:

1-Attendance: Attendance to class is compulsory. (1) Students must comply with the 70% attendance rule. Otherwise they will lose their 1st and 2nd chance, and go directly to the 3rd one (they will need to enrol again in this course next academic year). (2) Punctuality will be taken into consideration when grading this assistance item and the teacher reserves the right to allow attendance to class to those students not being on time. Finally, (3) general attitude and behaviour in class will be also considered. Students affecting the class environment in a negative way will lose points in the assistance grade.

2-Active participation: participation in class will be evaluated positively if students: (1) attain a threshold quantity of contributions that is sufficient for making a reliable assessment of comment quality. Additionally, (2) participation will be evaluated in quality terms. A high quality comment reveals depth of insight, rigorous use of case evidence, consistency of argument, and realism. A high quality presentation of ideas must consider the relevance and timing of comments, and the flow and content of the ensuing class discussion. It demands comments that are concise and clear, and that are conveyed with a spirit of involvement in the discussion at hand.

B. REACTION PAPERS (20%)

Reaction papers will be assessed based on: (1) the relevance of the topics covered, (2) the understanding of the course material that the paper reflects, (3) the insights provided, (4) the capacity to connect the theory to the real world, and (5) the professionalism of the writing (general quality of the writing and lack of syntactic, grammatic, or orthographic mistakes).

C. TUTORIAL (20%)

Tutorials will be graded based on: (1) the engagement and learning of the rest of the class thanks to the tutorial, (2) the variety and appropriateness of the methods used (i.e., quizzes, experiments, role-plays, examples, ads, videos, etc.), (3) the capacity to answer questions well about the topic of the tutorial, and (5) the relevance of the applications presented.

D. FINAL EXAM (50%)

The final exam will take place at the end of the second semester (**session 30**) and will cover all the content of the course. More details about this exam will be provided in advance in class.

IMPORTANT: In order to pass the course, you need a minimum grade of 5 in the final exam. If your grade in the final exam do not reach the threshold value of 5, you will fail the course, even the case in which your weighted average of the course exceeds 5.

Additionally, given that the dates of exams are provided in advance, no exceptions will be made. If you do not attend an exam (for whatever reason), this will automatically imply a 0 in this part of the course. Please take this into consideration when planning your semester and your attendance.

GENERAL OBSERVATIONS

Each student has four attempts over two consecutive academic years to pass this course.

For every BIE Program mandatory class, students are required to obtain the minimum grade of 5 required to pass the course. **Students whose grade in the Final Exam (or the largest assignment) is below 5 will fail the course.** The rule applies to whichever assignment carries the greatest weight to the final grade. Dates and location of the final exam will be posted in advance and will not be changed.

Students must attend at least 70% of the sessions. Students who do not comply with the 70% attendance rule will receive a 0.0 on their first and second attempts and go directly to the third one (they will need to enroll in this course again the following academic year).

Students who are in the third or fourth attempt must contact the professor during the first two weeks of the course.

ATTENDANCE

In-person attendance is mandatory at IE University, as it is an essential factor of IE's learning methodology. While we do closely monitor attendance in each course, we also consider our students responsible for their own agenda and commitments, as adult university students. With that in mind, each student may miss up to 30% of the sessions within a given course and still maintain the possibility of passing that given course. This 30% "buffer" is to be used for any absences, such as: illnesses, personal emergencies, commitments, official/governmental matters, business and/or medical appointments, family situations, etc. Students should manage their various needs, and situations that may arise, within that 30% buffer. If a student is absent to more than the allowed 30% of the sessions (regardless of the reason), s/he will obtain a 0.0 grade for that course in both the ordinary and extraordinary calls of the current academic year, and s/he will have to retake the course during the following academic year.

Please pay close attention to your attendance. The program strongly encourages attending 100% of the sessions as it will improve your learning outcomes, it will increase the class performance and it will benefit your participation grade. Noncompliance with deadlines for Non-Classroom Learning activities or assignments will result in an absence for the session.

Extreme cases involving emergencies such as: extended hospitalizations, accidents, serious illnesses and other cases of force majeure, are to be consulted with the Program Management (bir.biemadrid@ie.edu) for assessment of the situation and corresponding documentation, in order to support and guide each student optimally.

For more information about the university attendance policy, please check; <https://www.ie.edu/student-guide/bir/policies-and-guidelines/attendance/>

RETAKE POLICY

Any student whose weighted final grade is below 5 will be required to sit for the retake exam to pass the course (except those not complying with the attendance rules, whom are banned from this possibility).

Grading for retakes will be subject to the following rules:

- The retakes will consist of a comprehensive exam or equivalent assignment. The grade will depend only on the performance on this exam; continuous evaluation over the semester will not be taken into account.
- Dates and location of the retakes will be posted in advance and will not be changed.

- The exam/assignment will be designed bearing in mind that the passing grade is 5 and the maximum grade that can be attained is 8 out of 10.

PLAGIARISM / ACADEMIC HONESTY

Plagiarism is the dishonest act of presenting another person's ideas, texts or words as your own. This includes in order of seriousness of the offense:

- providing faulty sources;
- copy-pasting material from your own past assignments (self-plagiarism) without the instructor's permission;
- copy-pasting material from external sources even while citing them;
- using verbatim translations from sources in other languages without citing them;
- copy-pasting material from external sources without citing them;
- and buying or commissioning essays from other parties.

IEU students must contact the professor if they don't know whether the use of a document constitutes plagiarism. For help with your academic writing, contact the Writing Center (writingcenter@faculty.ie.edu). The professor will also advise the student on how to present said material. All written assignments must be submitted through Turn-it-in, which produces a similarity report and detects cases of plagiarism. Professors are required to check each student's academic work in order to guarantee its originality. If the originality of the academic work is not clear, the professor will contact the student in order to clarify any doubts. Students using external tutorial support should report it to the professor and the BIR Program from the moment they began receiving this support. In the event that the meeting with the student fails to clarify the originality of the academic work, the professor will inform the Director of the Bachelor Program about the case, who will then decide whether to bring the case forward to the BIR Academic Review Panel. Very high similarity scores will be automatically flagged and forwarded to the Academic Review Panel. Plagiarism constitutes a very serious offense and may carry penalties ranging from getting a zero for the assignment to expulsion from the university depending on the severity of the case and the number of times the student has committed plagiarism in the past.

PROFESSOR BIO

Professor: **JOSEP GISBERT**

E-mail: jgisbert@faculty.ie.edu

Josep Gisbert holds a Ph.D. in Finance, a Master of Research in Economics, a Master of Science in Management from Universitat Pompeu Fabra, a Master in Finance from CUNEF, and a BA in Economics from Universitat Rovira i Virgili. Josep is currently an assistant professor at IEU and a research fellow at the IESE Banking Initiative. He is interested in the role of technology in finance, artificial intelligence, banking, and sustainable finance. To explore these areas, he exploits rich micro-level datasets, data science methods, and cutting-edge microeconomic techniques helpful for measuring causal estimates. Josep has received research training at DeepLearning.AI, CEMFI, Inria, London School of Economics, the Max Planck Institute, and Technion – Israel Institute of Technology. At IEU, he teaches Econometrics, Data Analysis, and Behavioral Economics. During his Ph.D., Josep has been a teaching assistant for Econometrics, Finance, and Behavioral Economics courses at several institutions such as the Barcelona School of Economics, the Barcelona School of Management, ESADE Business School, and Universitat Pompeu Fabra. Before starting his academic career, Josep interned or worked for financial institutions such as HSBC, Credit Agricole Investment Bank, CaixaBank, and Santander.

OTHER INFORMATION

Office hours and contact details

- **Office hours:** To be announced (or by email to set a date and time).
- **Contact details:** jgisbert@faculty.ie.edu

CODE OF CONDUCT IN CLASS

1. Be on time. Students arriving more than 5 minutes late will be marked as “Absent”. Only students that notify in advance in writing that they will be late for a specific session may be granted an exception (at the discretion of the professor). Students attending online must always have their cameras on during the session or risk being marked absent.
2. If applicable, bring your name card and strictly follow the seating chart. It helps faculty members and fellow students learn your names.
3. Do not leave the room during the lecture: Students are not allowed to leave the room during lectures. If a student leaves the room during lectures, he/she will not be allowed to re-enter and, therefore, will be marked as “Absent”. Only students that notify that they have a special reason to leave the session early will be granted an exception (at the discretion of the professor).
4. Do not engage in side conversation. As a sign of respect toward the person presenting the lecture (the teacher as well as fellow students), side conversations are not allowed. If you have a question, raise your hand and ask it. If you do not want to ask it during the lecture, feel free to approach your teacher after class. If a student is disrupting the flow of the lecture, he/she will be asked to leave the classroom and, consequently, will be marked as “Absent”.
5. Use your laptop for course-related purposes only. The use of laptops during lectures must be authorized by the professor. The use of Social Media or accessing any type of content not related to the lecture is penalized. The student will be asked to leave the room and, consequently, will be marked as “Absent”.
6. No cellular phones: IE University implements a “Phone-free Classroom” policy and, therefore, the use of phones, tablets, etc. is forbidden inside the classroom. Failing to abide by this rule entails expulsion from the room and will be counted as one absence.

7. Escalation policy: 1/3/5. Items 4, 5, and 6 above entail expulsion from the classroom and the consequent marking of the student as “Absent.” IE University implements an “escalation policy”: The first time a student is asked to leave the room for disciplinary reasons (as per items 4, 5, and 6 above), the student will incur one absence, the second time it will count as three absences, and from the third time onward, any expulsion from the classroom due to disciplinary issues will entail 5 absences.

