

# Behavioral and Experimental Economics

## *Syllabus*

*Fall 2016/2017*

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### **General information about the course:**

This course is an introduction to Behavioral and Experimental Economics. Behavioral Economics has emerged as a discipline studying situations in which the behavior of people does not correspond to the predictions of standard economic theory. Mainstream economics is based on several assumptions. First, economic agents are assumed to maximize their own utility. Second, agent's behavior is not influenced by social or emotional factors. Third, agents have unlimited cognitive abilities allowing them to choose optimally from all available alternatives. Since 1970s researchers have accumulated a lot of evidence showing that the *observed* human behavior is at odds with what is predicted based on these assumptions. People often make "irrational" choices with respect to their insurance, saving plans, health, participation in lotteries, etc. In this course we will consider the new concepts that help to explain the observed anomalies of human behavior. Since large part of these anomalies has been detected with the help of economic experiments, we will spend a lot of time discussing this methodology and its examples.

### **Course goals and learning objectives:**

This course has several learning objectives. First of all, it aims at developing interdisciplinary thinking. Behavioral Economics (broadly defined) combines knowledge from several disciplines, such as Economics, Psychology, Sociology and Neuroscience. Students will learn how to formalize the concepts from social sciences outside Economics (e.g., fairness, reciprocity, trust, envy etc.) and how to incorporate them into economic models. Second, the course is focused on understanding what is an economic experiment. Students will discover various types of experiments (lab, field, natural, etc.) and learn how to use experiments to test economic theories. Finally, the course helps to develop critical thinking with respect to the results of economic research. Students will have a chance to train their ability to be conscious readers of economic studies and integrate evidence from various sources.

### **Who can benefit from this course?**

This course is for anyone who wants to broaden their understanding of human economic behavior. Since Behavioral Economics gets more and more incorporated into many areas of economic research anyone has a chance to come across its basic notions in their field of interest.

### **Prerequisites:**

The course implies that you have taken a course in Microeconomics as well as a course in Calculus and Statistics. Those students who did not fulfill these requirements are likely to experience significant difficulties when working on course assignment, midterm and final tests.

**Teaching language:** English

**Length:** 1 term (2 modules)

**Course outline:**

*(The outline is approximate and may change during the term.)*

Topic 1: Introduction to Behavioral Economics. Applying experimental methods in Economics.

The history of Behavioral Economics and the history of experimental methodology in Economics. How BE is different from mainstream Economics? We will see how the insights from psychology challenged the basic assumptions of economic theory. Types of experiments: lab, field, natural.

***Suggested readings:***

- Falk, A. and Heckman, J. (2009): Lab Experiments Are a Major Source of Knowledge in the Social Sciences. *Science* 326 (5952): 535-8.
- Croson, R. and Gächter, S. (2010): The Science of Experimental Economics. *Journal of Economic Behavior and Organization* 73(1): 122-31.
- Laibson, David, and Richard Zeckhauser (1998): Amos Tversky and the Ascent of Behavioral Economics. *Journal of Risk and Uncertainty*, 16:7-47.

Topic 2: Paradoxes of riskless choice. Endowment effect.

People often have to make choices in a riskless environment where very little uncertainty is involved, e.g. a choice whether to participate in an exchange or which of the two products to consume. We will consider the notions of willingness-to-pay and willingness-to-accept and the discrepancy between them that is called the endowment effect.

***Suggested readings:***

- Kahneman, Daniel, Knetsch Jack L., Thaler, Richard H. "Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias" *The Journal of Economic Perspectives*, Vol. 5, No. 1. (Winter, 1991), pp. 193-206.
- Kahneman, Daniel, Jack L. Knetsch, and Richard Thaler. 1990. "Experimental Tests of the Endowment Effect and the Coase Theorem." *Journal of Political Economy* 98 (6): 1325-1348.
- Kahneman, Daniel and Amos Tversky. "Loss Aversion in Riskless Choice: A Reference-Dependent Model." In *Choices, Values and Frames*, Ch. 7, pp. 143–158.

Topic 3: Paradoxes of choice under risk. Prospect Theory.

Examples when the expected utility theory does not work. Main ingredients of Prospect Theory: reference-dependence, loss aversion, probability weighting. Examples of how PT works in real life.

### ***Suggested readings:***

- Kahneman, Daniel and Amos Tversky. 1979. "Prospect Theory: An Analysis of Decision under Risk." *Econometrica* 47 (2): 263-292.
- Rabin, Matthew. "Diminishing Marginal Utility of Wealth Cannot Explain Risk Aversion." In *Choices, Values and Frames*, Ch. 11, pp. 202–208.

### **Topic 4: Other-regarding preferences.**

Standard economic theory assumes that agents are completely selfish; they do not care about the utility of others. Two simple experiments – the Dictator and the Ultimatum game – have shown that this assumption does not correspond to reality. We will consider possible explanations of the observed willingness to share money with strangers: altruism, following social norms and inequity aversion (Fehr-Schmidt utility function).

### **Topic 5: Trust and reciprocity.**

Measuring trust is a tricky task. Generally people are asked to state whether they agree with the statement that others can be trusted. Economists have come up with an experiment allowing to measure the degree of trust and trustworthiness without asking for subjective assessments. We will consider the experimental trust and "lost wallet" games as well as the concept of a gift exchange economy.

### **Topic 6: Public good experiments.**

Standard economic theory suggests that in the absence of external control free-riding behavior should be observed. Economic experiments have shown however that people are often willing to contribute to the production of a public good. To what extent do people cooperate? What types of cooperation do we observe? What are the conditions that promote cooperation in the lab and in the field?

### **Topic 7: Fairness and social preferences.**

There are two main approaches to defining fairness: outcome-based and intention-based. Fairness implies punishment for what is considered as unfair behavior or allocation. We will focus on experiments that study when people are willing to punish others and to what extent. We will learn about various criteria for social preferences and how to disentangle them: inequity aversion, efficiency and maximin.

### ***Suggested readings:***

- Fehr, Ernst and Klaus Schmidt "A Theory Of Fairness, Competition, And Cooperation " *The Quarterly Journal of Economics* , 1999, 114(3), 817-868.

### **Topic 8: Experiments on discrimination.**

This topic demonstrates how experimental economics can be used to study social phenomena that have a large economic impact, such as discrimination. We consider

various experiments that help to distinguish between various types of discrimination: animus, statistical or bargaining ability discrimination.

#### Topic 9: Time-inconsistent preferences and the self-control problem.

We observe many examples of the self-control problem in real life: procrastination, failing to give up smoking, failing to meet deadlines, etc. This behavior is hard to explain assuming complete rationality. We will consider two approaches used to model the time-inconsistency of preferences: hyperbolic discounting and dual-self.

##### ***Suggested readings:***

- Bernheim, Antonio, and Douglas Bernheim. "Addiction and Cue-Conditioned Cognitive Processes." NBER Working Papers 9329. Research: Behavioral Public Economics.
- Gruber, J., and B. Koszegi. "Is Addiction 'Rational'? Theory and Evidence." *Quarterly Journal of Economics* 116, no. 4 (2001): 1261-1305.
- Laibson, D. "A Cue-Theory of Consumption." *Quarterly Journal of Economics* 116, no. 1 (2001): 81-120.

#### Topic 10: Nudging: using Behavioral Economics to improve policy-making.

How can the insights from Behavioral Economics be used to nudge people to make better decisions? What is meant by the "soft paternalism"? What are the costs and benefits of this approach?

##### ***Suggested readings:***

- Madrian, Brigitte C. and Dennis F. Shea. 2001. "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior." *Quarterly Journal of Economics* Vol. CXVI (4): 1149-1187.
- Thaler, Richard and Shlomo Benartzi. 2004. "Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving." *Journal of Political Economy* 112 (1): S164-187.
- Gabriel Carroll, James Choi, David Laibson, Brigitte C. Madrian, and Andrew Metrick, "Optimal Defaults and Active Decisions," *Quarterly Journal of Economics*, 2009.

#### Topic 11: Economics meets Psychology.

Economic modeling can be used to understand and explain certain psychological phenomena, such as motivational crowding-out or inadequate self-esteem. In this topic we consider theoretical models that use economics as a tool to understand psychological aspects of human behavior.

##### ***Suggested readings:***

- Benabou, R., and Jean Tirole. "Self-Confidence and Personal Motivation." *Quarterly Journal of Economics* 117, no. 3 (August 2002): 871-915

## Topic 12: The basics of Neuroeconomics.

Neuroeconomics is a new field that has started to emerge as an intersection between Neuroscience and Economics. How can these fields of research inform each other? We will consider the basic methods of observing the brain activity and measuring the physiological response of a human in the situations involving economic choice.

### **Evaluation:**

Evaluation of this course consists of the following parts:

- (1) 2-3 home assignments: read a given paper and answer a number of questions on it, or solve a problem set;
- (2) Midterm test in the end of the 1<sup>st</sup> module;
- (3) Final test in the end of the term;
- (4) **Individually** written essay;
- (5) Pop-up quizzes (20 min) during some lectures.

Final grade will be determined based on the overall distribution of the accumulated grades. The accumulated grade is the sum of grades for each part with the following weights (*this can change in the beginning of the term*):

10% Home assignments  
 10% Quizzes  
 30% Midterm test  
 30% Final test  
 20% Essay

**Textbook:** Introduction to Behavioral Economics *by David R. Just (2014)*

**All relevant information about the course is located at:**

<https://sites.google.com/site/kseniapanidi/teaching/behavioral-and-experimental-economics-fall-2015-2016>

**Essay requirements:** an essay should contain five examples of real-life stories where you or your friends behaved irrationally or demonstrated any of the cognitive biases covered in this course. Each story should contain the following elements:

- 1) A brief explanation of what exactly was observed (in each case your story should either directly relate to you or you should have directly observed it happening).
- 2) An explanation of how a rational person would behave in the same situation (what decision he/she would make) and why; how this hypothetical behavior would correspond to classical utility theory;
- 3) An explanation of which particular cognitive bias you observed in this story and why you believe the observed behavior was irrational.

An essay should be written by you personally and individually.

**Quiz policy:** NO QUIZ CAN BE RETAKEN. If a quiz is missed for a medical reason and a valid medical document is provided as a confirmation, the weight of this quiz in the final grade will be redistributed between subsequent quizzes (if they take place) in equal proportion. However, this rule can be applied to only two quizzes during the semester. Any quiz missed in addition to these two cannot be retaken. Reasons other than medical cannot be considered for weight redistribution.

**Midterm policy:** MIDTERM CANNOT BE RETAKEN. If you miss the midterm for a medical reason and a valid medical document is provided as a confirmation, the weight of the midterm will be added to the weight of the final test (which will then constitute 40% instead of 20). Reasons other than medical cannot be considered valid for weight redistribution.

**Final test policy:** There is no exam for this course. However, a final test is written in the end of the semester. If the final test is missed due to confirmed medical reasons, it can be retaken only once. In case the course is failed, the make-up will be evaluated by a committee of three professors.

**Attendance policy:** Although attendance is not included in the evaluation of this course, it is strongly recommended to attend all classes.

**Meeting the deadlines:** students are expected to meet the deadlines that are indicated on all written assignments. Missing the deadline on a written assignment for less than 24 hours leads to a discount of the grade by 10%, 24-48 hours discounts it by 50%, 48-72 hours discounts it by 75%. Assignments turned in later than 72 hours after the deadline will not be graded.

**Academic integrity:** The Higher School of Economics strictly adheres to the principle of academic integrity and honesty. Accordingly, in this course there will be a zero-tolerance policy toward academic dishonesty. This includes, but is not limited to, cheating, plagiarism (including failure to properly cite sources), fabricating citations or information, tampering with other students' work, and presenting a part of or the entirety of another person's work as your own. HSE uses an automated plagiarism-detection system to ensure the originality of students' work. Students who violate university rules on academic honesty will face disciplinary consequences, which, depending on the severity of the offense, may include having points deducted on a specific

assignment, receiving a failing grade for the course, being expelled from the university, or other measures specified in HSE's [Internal Regulations](#).