1 Course philosophy, contents and teaching methods

The course has several interrelated goals. First, it introduces students to the field of Behavioural Economics — a synthetic discipline, which combines insights from Economics and Psychology, as well as other disciplines, including Sociology and Political Science, in order to understand the nature and motives of human behaviour in individual and interactive decision-making.

Behavioural Economics, like any contemporary study in the field of social sciences, is based on rigorous analytical foundations, which shall be studied in our course from the very first principles (theory of rational choice), to the foundations of interactive decisions, economic and social institutions, and mechanism design. However, what makes these theories scientific are their testable implications. Notwithstanding the wisdom of traditional economics, experimental methods are not just possible but sometimes necessary to decide which of the competing theories is descriptively the most adequate.

In this course, we discuss the principles of experimental methods and their applications in the lab, in the field and in nature, as well as their use to test alternative descriptive theories of human behaviour. Lab experiments (and participation in these) will be an integral part of the course, and will contribute to the course grading.

Finally, one of the related goals of the course is to put relevant theoretical knowledge into practice. Course participants will require to set up and implement an original research project in social sciences (broadly defined), which will be carried up in small groups and under thorough supervision of the course instructors. The skills of running a project are essential for successful completion of the ICEF diploma paper, as well as in many post-graduate ‘practical’ instances, be these academic research or business projects. We shall develop these skills from the very first principles (how to choose a good topic for research? what makes a project interesting?), to research setup (what is a proper research hypothesis? how to embed the project into the literature?), scientific methods (how to build a theoretical model? how should it be connected to the empirical part?), research strategy (which experimental design to choose? what it makes to construct a good questionnaire?), statistical analysis (what is the difference between parametric and nonparametric methods? which econometric technique should I use?) and conclusions (how do the results of the study contribute to the existing knowledge on the topic?). These steps shall be worked out using real-life cases — empirical projects chosen, designed and conducted by the students.
during this course. Course project will constitute a substantial part of the final grade, and will be debriefed regularly with the course instructors. Project progress report will be counted as the course midterm, and presentation of project results will be (physically) part of the final exam.

The course is largely interactive, and draws heavily on empirical results. Many of them shall be discussed in class, and some will be obtained with the participation of the students. It is, thus, imperative that students attend the classes and participate in the class experiments, complying with the experimental rules as necessary.

Home assignments shall be handed weekly, and will consist of theoretical problems, as well as reading assignments, deliberation and debriefing on particular issues to be discussed in the class.

Short quizzes for about 10 min will also be conducted regularly, and will contribute to the final grade.

Feedback on the lectures and classes, as well as ongoing discussion of the course topics shall be organized when necessary and by request of the students (including Office Hours). Students are always welcome to contribute their ideas and questions, concerning any issues relevant to the context of the course.

2 Course objectives

Course objectives are:

1. Familiarize students with contemporary experimental and empirical studies of human behaviour, which emerged as a result of interdisciplinary research in economics, psychology and other social sciences;

2. Develop critical thinking and working skills with contemporary research literature;

3. Enhance their creativity and capability to conduct independent research in the field of behavioural and social sciences, data analysis and interpretation.

3 Grading

The course will be graded as follows:

10% Course quizzes.

20% Home assignments.

30% Research project, including literature review (5%), quality of research problem and hypotheses (5%), data collection (5%), analysis and interpretation (5%), presentation of preliminary (5%) and final (5%) results.

40% Final examination.

In addition, up to 10% may be earned for the classroom activities, including performance-based participation in economic experiments.
4 Readings

There is one major text for the course:


Copies of this text are available at ICEF library.

Readings for each topic are listed next to them; compulsory readings are **boldfaced**.

5 Course topics

**Introduction** Course presentation

1. What is Behavioral Economics about
2. Course structure, contents, resources and grading
3. Expectations and aspirations

**Theme 1** Rationality and human behaviour


Main Readings:


Further readings: for further insights on rationality and related issues from cross-disciplinary perspective, you may find useful the following collected papers and books, which cover more than the present topic:

Theme 2 Economics and psychology: heuristics and biases paradigm.
Neuroeconomics and interdisciplinary approach to human behaviour.

Main Readings:

1. WK, ch.3,4


Further readings:


Further readings include the following volumes of collected papers:


and the following articles referring to some of the specific heuristics:


**Theme 3** Theory of choice under risk: EUT, PT and beyond.

Ordinal, cardinal, interval utilities. Expected utility: from Bernoulli to vNM. vNM representation theorem and properties of expected utility. Allais paradox and generalized EUT: Prospect theory, RDEU.

Main Readings:

1. **WK, ch.5**


Further readings include textbook expositions, such as:


Collected papers, both technical and ‘philosophical’:


and research articles, e.g.:


Further readings, including non-traditional measurements of risk attitudes:

Theme 4  Experiment design and its properties. Statistical methods of experimental data analysis: parametric and nonparametric tests. Micro-econometric methods and models. Hands-on session on data analysis (Stata, R).

Main Readings:


7. WK, ch.6


Good for multivariate analysis of experimental results (ANOVA, MANOVA, Factor Analysis, etc.):


A highly readable text on nonparametric statistics is


A few illustrative examples of methodological issues that arise in practical work:


For practical guide of experimental methodology, use the following sources:


There are many sources on experimental methodology in the web, such as:

18. Wikipedia.

19. Alvin Roth — perhaps the best collection of links

20. A comprehensive British educational portal

21. Charles Holt, founder of Experimental Economics journal

22. Classroom Experiments journal

23. A.C haudhuri's behavioural and experimental webpage

More links are available at http://epee.hse.ru/Literature

Relevant data analysis tools:

Option 1: Stata

1. About the software http://www.stata.com/

Option 2: R

1. Download a freely distributed version of the software: https://www.r-project.org/
2. A convenient user interface for R: https://www.rstudio.com/
3. Introduction to Programming in R: https://ru.coursera.org/course/rprog and other Data Science courses from Johns Hopkins University at Coursera
4. Statistical data analysis using R, an easy course taught in Russian by a group of young enthusiasts: "Анализ Данных в R" https://stepic.org
5. Rob Kabacoff. R in Action. Manning, 2010 (Available at ICEF library)

Theme 5 Dynamic choice.

Main Readings:

1. WK, ch.7,8

Further readings:

Theme 6 Interactive decisions: games and their empirical tests

Main Readings:

1. WK, ch.9


Some works on belief formation are


There is also a large ‘epistemic’ game-theoretic literature, starting from

Theme 7 Group decisions and social preferences
Social dilemmas: public goods game, coordination game, and methods of boosting up cooperation.

Main readings:

1. WK, ch.10

For biological and neuroscience foundations of collective behaviour, see:

Theme 8 Market experiments and mechanism design
Market structures and experimental tests. Auctions. Role of information: financial markets. Efficiency of alternative institutions and elements of mechanism design.

Main readings:


Prominent examples of mechanism design (Nobel prize 2012)


Basic auction theory and experimental results are available at


Theme 9 Conclusion: Project results’ presentation and sum up.
6 Research project

Research projects are to be developed according to the following steps

Step 1: Idea of research

1. How to understand the world around you and yourself? Ideas of a research project
2. Necessary ingredients of a research project: issue, contribution, hypotheses, methods
3. Theory and experiment

Step 2: The role of assumptions

1. Rationality assumption: why do we need it?
2. Utility and belief elicitation
3. Saliency: incentives schemes
4. How to choose subjects for your project?

Step 3: Hypotheses testing

1. Hypotheses: prediction and testing.
2. Simple (quasi) experiment: testing against the null.
3. Experiment per ce: treatment and control groups
4. Kind of experiments
5. Analysis of experimental data using Stata/R.

Step 4: Experimental design

1. Treatment vs control group.
2. Examples of experimental data analysis using Stata and R.
3. Sample hypotheses testing using project data
4. Survey/experimental design
5. Simulation of results using artificial data.

Step 5: Project development

1. Bringing hypotheses to data: collection and measurement
2. Data pitfalls: How much should you trust your data?

Step 6: Data analysis and interpretation