

EXPERIMENTAL ECONOMICS

IE University

Professor: PRANADHARTHIHARAN NARAYANAN

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Academic year: 23-24

Degree course: THIRD

Semester: 1^o

Category: COMPULSORY

Number of credits: 3.0

Language: English

PREREQUISITES

In general, there are no mandatory prerequisites. However, basic knowledge of microeconomics would be helpful.

SUBJECT DESCRIPTION

This course introduces you to think critically about how scientific experiments have been applied in economics (e.g., in labor markets, auctions and individual judgement and decision making). As a part of the learning process, you will learn how to design experiments and analyze data collected from experiments. We will also discuss contemporary issues in experimental research such as replication crisis and pre-registration.

OBJECTIVES AND SKILLS

This module is aimed to provide students with the proper tools to design economic experiments as well as to analyze data that is generated in a controlled environment.

The hope is for students to be able to:

- See the world through the lens of an experimenter.
- Think critically about what kind of experimental design would be needed to answer a particular interesting question about human behavior or a phenomenon.

METHODOLOGY

The course will be delivered in 15 sessions through classroom lectures.

The last two sessions will focus on student presentations and the topics for the same will be discussed at the start of class.

Teaching methodology	Weighting	Estimated time a student should dedicate to prepare for and participate in
Lectures	40.0 %	30 hours
Discussions	20.0 %	15 hours
Exercises	20.0 %	15 hours

Group work	6.67 %	5 hours
Other individual studying	13.33 %	10 hours
TOTAL	100.0 %	75 hours

PROGRAM

SESSION 1 (LIVE IN-PERSON)

Topic I. Methodology of experiments

- o What is an experiment?
- o Types of experiments: Lab, Field and Natural

SESSION 2 (LIVE IN-PERSON)

Topic I. Methodology of experiments

- o What is an experiment?
- o Types of experiments: Lab, Field and Natural
- o Why run experiments? Causality vs. Correlation, Limitations of survey data

SESSION 3 (LIVE IN-PERSON)

Topic I. Methodology of experiments

- o Designing randomized experiments: Between vs. Within subjects design
- o Analyzing experimental data (Hypothesis tests and ANOVA)

SESSION 4 (LIVE IN-PERSON)

Topic I. Methodology of experiments

- o Analyzing experimental data (Hypothesis tests and ANOVA)
- o Sample size estimation, power

SESSION 5 (LIVE IN-PERSON)

Topic II. Experiments: Labor markets

Working Paper: Bertrand & Mullainathan, 2004 (NBER WORKING PAPER SERIES 9873)

SESSION 6 (LIVE IN-PERSON)

Topic II. Experiments: Labor markets

SESSION 7 (LIVE IN-PERSON)

Topic III. Individual judgment and decision making

Article: Tversky & Kahneman, 1974 (Science, New Series, Vol. 185, No. 4157. (Sep. 27, 1974), pp.

1124-1131.)

SESSION 8 (LIVE IN-PERSON)

Topic III. Individual judgment and decision making

Article: Tversky & Kahneman, 1974 (Science, New Series, Vol. 185, No. 4157. (Sep. 27, 1974), pp. 1124-1131.)

SESSION 9 (LIVE IN-PERSON)

Topic III. Individual judgment and decision making

SESSION 10 (LIVE IN-PERSON)

Topic IV. Experiments: Game theory and auctions

SESSION 11 (LIVE IN-PERSON)

Topic IV. Experiments: Game theory and auctions

SESSION 12 (LIVE IN-PERSON)

Topic V. Contemporary issues in experimental research

Article: Evidence of Fraud in an Influential Field Experiment About Dishonesty (Data Colada, August 17, 2021)

Article: When the revolution came for Amy Cuddy (The New York Times Magazine, Oct. 18, 2017)

SESSION 13 (LIVE IN-PERSON)

Topic V. Contemporary issues in experimental research

SESSION 14 (LIVE IN-PERSON)

Student presentations

SESSION 15 (LIVE IN-PERSON)

Student presentations

EVALUATION CRITERIA

The final grade depends on your final exam (50%), presentation (20%), homework assignment (20%) and your class participation (10%).

Criteria	Percentage	Comments
Final Exam	50 %	
Individual Presentation	20 %	
Homework Assignment	20 %	
Class Participation	10 %	

GENERAL OBSERVATIONS

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

For every BIR Program mandatory class aside from the IR Unplugged and BIR Electives, 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

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.madridoffice@ie.edu) for assessment of the situation and corresponding documentation, in order to support and guide each student optimally.

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

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PRANADHARTHIHARAN NARAYANAN

Pranadharthiharan Narayanan is a PhD candidate in Decision Sciences and Operations area at IE Business School. In his research, he investigates how algorithmic recommendations influence human risk-taking and search behavior. He has a multidisciplinary background with a Masters in Electrical and Computer Engineering from the University of Texas at Austin and a Masters in Research in Management at IE Business School. He primarily uses laboratory experiments in his research.

OTHER INFORMATION