

Course guide

240783 - 240783 - Experimental Economics

Last modified: 16/05/2023

Unit in charge: Barcelona School of Industrial Engineering
Teaching unit: 1039 - UPF - Universitat Pompeu Fabra.

Degree: BACHELOR'S DEGREE IN INDUSTRIAL TECHNOLOGIES AND ECONOMIC ANALYSIS (Syllabus 2018).
(Optional subject).

Academic year: 2023 **ECTS Credits:** 6.0 **Languages:** English

LECTURER

Coordinating lecturer: Daniel Navarro Martínez (office: 20.178, email: daniel.navarro@upf.edu)

Others:

TEACHING METHODOLOGY

The course will be divided in two parts:

1) In the first part, the professor will explain a series of theoretical concepts that are important to be able to understand and analyze different types of experiments and he will introduce multiple examples of specific experiments. He will also conduct several replications of classic experiments with the students, so that they have first-hand experience of participating in experiments and discussing them with the professor and the rest of the class. In this part, on specific occasions, the professor might also give the students small assignments, such as reading a paper or reflecting on a topic before class. The professor will encourage the students to actively participate in the discussion of the concepts and experiments explained in this part.

2) In the second part, the students will work in small groups to design and carry out in class two experiments per group. The first one will be a replication of a classic experiment and the second one an original experiment created by the students. In both cases, the students will have to design the experiment, conduct it in class and then explain the design and the results to the rest of the class.

LEARNING OBJECTIVES OF THE SUBJECT

The main goal of the course is to introduce the students to the use of experimental methods applied to economic and management issues.

Conducting experiments is one of the main research methodologies both in the natural sciences (physics, chemistry, biology, medicine, etc.) and in the social and behavioral sciences (psychology, management, marketing, economics, etc.). Unlike the natural sciences, in the social sciences the object of study in the experiments is people and their behaviors. In experiments, people are put in controlled environments, designed by the experimenters, to study their behavior and how it responds to the factors being investigated. Experiments are used to test academic theories and ideas in a controlled way, but also to study more applied questions, such as the effects of changes in a product, of an advertising campaign, of a particular work environment, of an incentive system, etc. The questions that can be studied with experiments are endless and are mostly limited by the imagination and the resources of the experimenters.

In this course, the students will learn the necessary principles to understand the experiments conducted in the social and behavioral sciences and to carry out their own experiments to investigate questions of their interest in a controlled way. A substantial part of the course will be of a practical nature. Apart from the explanation of theoretical concepts, the students will participate in replications of classic experiments conducted by the professor, and they will also have to design and carry out experiments themselves using the rest of the students as participants.

The competencies acquired by the students in the course will be the necessary ones to understand, critically analyze, design, conduct and present experiments.



CONTENTS

First Part: Theory

Description:

Here is a list of the topics that will be covered in the first part of the course (the exact meaning of each topic will become clear during the course):

- 1) Introduction: The basics of experimentation
- 2) Decisions in conditions of risk and uncertainty
- 3) Prospect Theory: Loss aversion and framing
- 4) The influence of the context
- 5) Evaluating time
- 6) The role of emotions
- 7) The unconscious mind
- 8) Games: Social preferences
- 9) Games: Reasoning
- 10) Social psychology
- 11) Experiments in the field

The experiments conducted by the students in the second part of the course will also be about these topics.

Full-or-part-time: 30h

Theory classes: 24h

Practical classes: 3h

Guided activities: 3h

Second Part: Practice

Description:

In this part, the students will work in small groups to design and carry two experiments per group.

- 1) Student experiments: Replication
- 2) Student experiments: Original

Full-or-part-time: 18h

Theory classes: 6h

Practical classes: 6h

Guided activities: 6h



GRADING SYSTEM

The evaluation of the course will consist of 4 elements:

a) EXAM: At the end of the first part of the course, there will be an exam about the contents covered in class, including both the theoretical concepts and the examples of experiments explained. The professor will clarify the details of the exam in class.

Percentage: 30% (compulsory)

b) PARTICIPATION: Class participation is an important element of the course, to maximize interaction between the professor and the students and also among the students. This will help to clarify doubts and will get students used to discussing and critically analyzing experiments. Participation can take place in almost any moment: when discussing theoretical concepts and ideas explained in class, when analyzing replications of experiments run by the professor and also when discussing the experiments carried out by the students.

Percentage: 20%

c) REPLICATION EXPERIMENT: The students will conduct a replication of a classic experiment in small groups. They will have to design the details of the experiment, run the experiment in class and then explain the design and the results to the rest of the students, following the instructions provided by the professor.

Percentage: 20% (compulsory)

d) ORIGINAL EXPERIMENT: The students will also conduct an original experiment, using the same groups. They will have to design the experiment, run it in class and then explain the design and the results to the rest of the students. In this case, the students will also have to write a short report explaining the experiment, following the instructions provided by the professor.

Percentage: 30% (compulsory)

The recovery of the course will consist in an exam on the contents of the first part. The grade of the exam will be the final grade of the course.