

University of Milan
Master Degree in Data Science and Economics (DSE)

Conducting Experiments in Economics
Academic year 2023-24 – First Term

Antonio Filippin, University of Milan

Office: Department of Economics Management and Quantitative Methods, Room 23
Via Conservatorio 7, Milan

Tel +39 02 503 21536

E-mail: antonio.filippin@unimi.it

Office hours: by appointment

Course description:

The course is an introduction to the methodology of Experimental Economics, which has become a major area of empirical research. The main objective of the course is to teach students how experimental methods can be used to inform economic research also in the realm of data science. The course also sets a useful framework on the causality issue and allows the participants to better benefit from a later course in Behavioral Economics.

Learning objectives

At the end of the course the students are expected to acquire the tools necessary to:

- know how to think of economic problems from an experimentalist perspective;
- understand the existing experimental literature;
- apply the experimental methods in the realm of data science.

Learning outcomes

At the end of the course the students should be able to:

- assess the strengths and weaknesses of an experimental paper;
- be capable of designing and conducting an experiment.

Course prerequisites

None

Course organization: 20 hours of lectures

Course Assessment:

Proposal of an original experimental design in the realm of data science

Syllabus

Introduction

1. Causality: pros and cons of different approaches
2. Experiments: definitions, taxonomy, history, internal and external validity

Lab and Field Experiments

3. Between Vs within subject design
4. Induced preferences (rewarding the subjects)
5. Analysis of data (test of hypothesis)
6. Practical issues (recruitment, software, pre-registration, deception)

Natural experiments

7. Less control and more external validity
8. Examples and applications

Experiments and big data

9. Possible applications
10. Discussion of proposals

References

Reading list to be released during the course

Calendar

Monday 6 November, 8.30-10.30	aula 26
Friday 10 November, 16.30-18.30	aula 21
Monday 13 November, 8.30-10.30	aula 26
Friday 17 November, 16.30-18.30	aula 21
Monday 20 November, 8.30-10.30	aula 26
Friday 24 November, 16.30-18.30	aula 21
Monday 27 November, 8.30-10.30	aula 26
Friday 1 December, 16.30-18.30	aula 21
Monday 4 December, 8.30-10.30	aula 26
Monday 11 December, 14.30-16.30	aula 24