Ph.D. program in Social and Political Sciences

## Experimental Research

Marco Bonetti, Bocconi University

## 2023/24

The duration of the course is 24 classroom hours. The course aims at developing the principles and methods of the design, conduct, and analysis of randomized controlled studies.

Topics that will be discussed will be (approximately):

- 1. Randomization methods: simple, constrained, adaptive
- 2. Study design and analysis: protocols
- 3. Sample size determination
- 4. Estimation from censored and truncated data
- 5. Human subjects protection
- 6. Other topics: p-value adjustment, subgroup analyses, missing data, noncompliance

References will be provided during the course. Electronic class notes will be made available after the lectures. R will be used for some parts of the course.

A combination of one assignment (30% of the grade) and a final written exam (70% of the grade) will determine the final grade.

The course is meant for the PhD program in *Social and Political Sciences*. Students from other PhD programs may also take the course.

<u>Contact information:</u> Marco Bonetti Professor of Statistics Department of Social and Political Sciences Office: 6-D-01 Phone: 02/58365670 (not very useful) marco.bonetti@unibocconi.it (much more useful) http://faculty.unibocconi.eu/marcobonetti/