Randomized Control Trial and Policy Evaluation

Course title - Intitulé du cours	Randomized Control Trial and Policy Evaluation
Level / Semester - Niveau /semestre	M2 / S2
School - Composante	Ecole d'Economie de Toulouse
Teacher - Enseignant responsable	Bobba Matteo
Other teacher(s) - Autre(s) enseignant(s)	
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Lecture Hours - Volume Horaire CM	30
TA Hours - Volume horaire TD	15
TP Hours - Volume horaire TP	
Course Language - Langue du cours	Anglais
TA and/or TP Language - Langue des TD et/ou TP	Kevin Michael Frick

Teaching staff contacts - Coordonnées de l'équipe pédagogique :

Prof: matteo.bobba@tse-fr.eu. Office number: T.353. Office hours: TBA. Preferred means of interaction: By email or with prior appointment

TA: kevin-michael.frick@tse-fr.eu. Office hours: TBA.

Course's Objectives - Objectifs du cours :

This course features a broad overview of randomized experiments as a key tool in empirical research. The first part of the course discusses the rationale behind the experimental approach through the lens of prominent empirical methods. The second and third parts cover econometric aspects as well as a variety of implementation issues that arise when running RCTs in practice. The fourth part is aimed at illustrating the diverse use of randomized experiments in the most recent research practice through the exposition and discussion of leading academic articles. The learning objective of the course is twofold. First, students should be able to critically assess existing empirical research that employs the experimental approach. Second, students should be able to originally think about an experimental design of a research question of their choice.

Prerequisites - Pré requis :

The course is meant to be self-containing. However, basic knowledge of causal inference at the level of, say, the M1 Program Evaluation course or the M2 PPD Causal Inference course offered at TSE will be assumed during the exposition. While the TA sessions and the takehome exercises (see below) will deepen your empirical skills through practical exercises, previous knowledge of standard statistical packages such as Stata or R is highly reccomended.

Practical information about the sessions - Modalités pratiques de gestion du cours :

Laptops and tablets are allowed provided they are used for the course. Student participation is required and will be graded.

Grading system - Modalités d'évaluation :

1. Final written exam [50%].

2. In-class presentation plus class discussion of academic papers [25%].

3. Takehomes [25%]: students will be required to do some simulations and empirical analyses with datasets that will be provided in class.

Bibliography/references - Bibliographie/références :

Textbook for the course: IMBENS, GUIDO, RUBIN, DONALD, Causal Inference for Statistics, Social, and Biomedical Sciences: An Introduction. New York: Cambridge University Press.

Additional references (academic papers and some chapters of other textbooks) will be given in class.

Session planning - Planification des séances :

1. Intro and overview (week 1)
   - Endogeneity and causality in economics
   - The case for and against RCT

2. The econometrics of RCTs (weeks 2 to 5)
   - Assignment mechanisms and randomization designs
   - Statistical analysis of field experiments

3. Practical design and implementation issues (weeks 6 and 7)
   - Power calculations for RCTs
   - Imperfect compliance, spillovers, attrition, and multiple hypotheses testing

4. Applications (weeks 8 to 10)