STRUCTURE AND GOALS OF THE COURSE: The goal of this course is to learn how to produce an empirical paper in business research using quantitative data. We cover some of the most widely used methodologies. The course covers (i) a brief review of theory with an emphasis on intuition, (ii) applications of methods in published papers, and (iii) practical lessons for producing your own research.

EXAM: Take home practical applications of the topics studied in class. You will have from 9AM of June 3 to 11:59PM of June 4 to write the exam and email it back to marialuisa.ambrosini@unibocconi.it and alfonso.gambardella@unibocconi.it. The exam is open book but individual.

CLASSES / TOPICS

CLASS 1-2 (MAY 29, 830-1150)

Prologue (overview of techniques and problem, interpretation of empirical results)

Evidence using stories and tables (no regressions)

Regressions that produce correlations (no causality, but some attempts to identify with proxies or in more elaborate ways)

CLASS 3-4 (MARCH 31, 830-1150)

Causality – Instruments

Causality – fixed effects


Causality – diff-in-diff


CLASS 5-6 (APRIL 12, 830-1150)
Practical session (regressions, causality)
Students replicate existing studies or design their own research

CLASS 7-8 (APRIL 19, 830-1150)
Selection on observables: Propensity score, matching methods

Regression discontinuity, scenarios and experiments

CLASS 9-10 (APRIL 26, 830-1150)
Count and qualitative dependent variables (Poisson, Negative Binomial, Probit & Logit, including ordered and multinomial – including theory)


CLASS 11-12 (MAY 3, 830-1150)

Sample selection, generalized tobit models & maximum likelihood estimation


Survival


CLASS 13-14 (MAY 10, 830-1150)

Text analysis


Machine Learning and Econometrics


CLASS 15-16 (MAY 17, 830-1150)

Practical session (qualitative response models, maximum likelihood estimation)

Students replicate existing studies or design their own research

CLASS 17-18 (MAY 24, 830-1150)

Practical session (text analysis, machine learning)

Students replicate existing studies or design their own research