UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

# Econometrics

**2021-1-F5602M002-F5602M004M**

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### Learning objectives

The course provides the basic skills to carry out empirical research in microeconomics and macroeconomics.

### Contents

Students are introduced to the main issues arising in applied work for an economist.

### Detailed program

- The simple regression model
- Multiple regression analysis: estimation, inference, asymptotics
- Multiple regression analysis: further issues
- Multiple regression analysis with qualitative information
- Heteroskedasticity
- More on specification and data problems
- Basic regression analysis with time series data
- Further issues in using OLS with time series data
- Serial correlation and heteroskedasticity in time series regressions
- Models based on Panel Data
- IV estimation and 2SLS
- Simultaneous equations models
- Models with limited dependent variables

- Advanced Time Series Topics

## Prerequisites

Statistics, mathematics.

## Teaching methods

Emphasis is placed on the use of econometric software packages as tools of quantitative and statistical analysis. Practical computer exercises are a key part of the course.

During the Covid-19 emergency, lectures will be online.

## Assessment methods

- For those who attend lectures the assessment is based on a written individual midterms and the presentation of an empirical project (group work) in the last weeks of the course.
- For those who do not attend lectures the assessment is based on an oral exam based on the whole syllabus and the presentation of an empirical project (individual work).
- During the Covid-19 emergency, exams will be oral online.

## Textbooks and Reading Materials

"Introductory econometrics: a modern approach", by J.M. Wooldridge, Thompson South Western, Belmond, 5th ed.

## Semester

Second semester

## Teaching language

English