



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Big Data in Business, Economics and Society

2122-2-F9101Q030-F9101Q030M

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#### Aims

To show some classical model for portfolio management

#### Contents

Markowitz's portfolio selection model and some extensions

#### Detailed program

Markowitz's (1952) portfolio selection model: introduction, mathematical derivation and weaknesses  
The minimum variance extension  
The risk parity extension

#### Prerequisites

Basic notions of probability and constrained optimization

#### Teaching form

In-person lectures remotely streamed

## **Textbook and teaching resource**

Lecturer's teaching notes

## **Semester**

Lectures' schedule:

March 2022

Tuesday 8th (10:30am-12:30pm)  
Thursday 10th (11:30am-1:30pm)  
Friday 11th (10:30am-1:30pm)  
Tuesday 15th (10:30am-12:30pm)  
Thursday 17th (11:30am-1:30pm)  
Tuesday 22nd (10:30am-12:30pm)  
Thursday 24th (11:30am-1:30pm)  
Friday 25th (1:30pm-4:30pm)  
Tuesday 29th (10:30am-12:30pm)  
Thursday 31st (11:30am-1:30pm)

April 2022

Friday 1st (1:30pm-4:30pm)

## **Assessment method**

The oral exam will be based:

- on the topics covered during the lab with the implementation of a numerical analysis
- a report on a topic not covered in class (to be settled with the instructor)

## **Office hours**

Office hours' schedule will be provided on a weekly basis. Office hours will be held remotely

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