MAFINRISK

MASTER OF QUANTITATIVE FINANCE AND RISK MANAGEMENT

XVIII EDITION
2021-2022

Università Bocconi
MILANO

Bocconi. Knowledge that matters.

ABOUT MAFINRISK

PROGRAM DIRECTOR **ANNA BATTAUZ**

1 MAFINRISK is one of the few Master programs anywhere with a specific emphasis on quantitative finance and risk management. We will give you all the **theory** and the **operational tools** you need to tackle the world of modern quantitative finance.

2 You will be part of an **international class** sharing your learning experience with students that have different cultural and educational backgrounds.

3 Our experienced and **qualified faculty** is a carefully selected **mix of academics and practitioners** who will transmit to you a passion for finance.

4 MAFINRISK will give you the chance to explore the **FinTech** area, offering two electives in machine learning and quantitative asset management.

5 We are in **Milan**, a lively, fashionable, culturally stimulating city: an environment which will make your year even more enriching and enjoyable.

6 The Bocconi Career Service, in cooperation with the MAFINRISK staff, helps students enter the job market by providing:

- **on-campus presentations**, career and recruiting events (Bocconi&Jobs, Investment Banking Days);
- **JobGate**, the online platform updated daily by employers, with internship and placement opportunities in Italy and abroad;
- a **Career Service Infopoint** where students can find online and papery useful resources to develop their knowledge about markets and professions;
- **CV Book**, an annual publication collecting the CVs of MAFINRISK graduates

LEARNING OBJECTIVES

MAFINRISK's mission is to create **fully independent specialists**, combining quantitative and operational skills with institutional competencies. For this reason the technical skills developed in our program are complemented with courses dedicated to more general economic and institutional aspects of finance.

The program is of particular relevance to those planning to work, or currently working in:

- capital markets, sales and trading
- risk control and risk management
- investment management and hedge funds
- new product design and structuring
- derivatives pricing, trading and risk management
- financial modelling

CANDIDATE PROFILE

MAFINRISK is tailored to fit both the requirements of:

- **economics** graduates who want to develop applied skills in the field of quantitative finance and risk management;
- graduates in **non-economics quantitative subjects** (mathematics, physics, statistics, engineering, computer science, etc.), lacking a specific training in economics and finance;
- **young professionals**.

We look for talented, motivated individuals wishing to pursue a career in the field of applied finance and ready to dedicate 12 months of challenging, intense study to the achievement of this goal.

CLASS PROFILE

- **Undergraduate fields of study**
  Business or Management, Economics, Finance and Banking, Engineering, Mathematics, Physics, Statistics, Computer Science
- **Limited working experience**

– **Average age**	25
– **Italian / Non-Italian students**	45% / 55%
– **GMAT score**	650-770
GRE score	158-170
– **Countries represented**	33

PROGRAM STRUCTURE

The Master will allow you to pursue your passion for finance using a rigorous, skills-based approach. The program is completely **held in English** and is completed in **12 months**, **full-time**. MAFINRISK classes are held every day from Monday through Friday.

The learning process has a practical orientation and takes the form of structured lectures backed up by practical applications through case studies and visiting speakers, as well as project works and individual research.

To qualify for the Specialized Master Diploma, participants must successfully complete **18 courses** (i.e. 7 fundamentals, 5 core and 6 electives) and an individual project or an internship report.

The total number of **credits** to be obtained is **66**:
62 (classes) + 4 (final project or internship report).

WATCH OUR ALUMNI VIDEO

STUDY PLAN

FIRST TERM
SEPTEMBER - DECEMBER 2021

FUNDAMENTALS
These courses aim to establish a common language between the faculty and the participants and to smooth out any differences in academic and working backgrounds.

- **Accounting and Financial Statement Analysis**
- **Derivatives**
- **Econometrics**
- **Fixed Income**
- **Investments**
- **Mathematical Models for Finance**
- **Probability and Stochastic Calculus**

SECOND TERM
JANUARY - MARCH 2022

CORE COURSES
They combine quantitative and risk management subjects. The focus is on the most technical aspects of asset pricing and hedging while highlighting institutional, organizational and regulatory aspects.

- **Credit Risk: Measurement and Management**
- **Market Risks: Measurement and Management**
- **Numerical Methods**
- **Theory of Valuation**
- **Topics in Financial Econometrics with R**

THIRD TERM
APRIL - MID JUNE 2022

ELECTIVES
6 electives among a wide menu of optional courses, each dedicated to several specific aspects of applied finance.

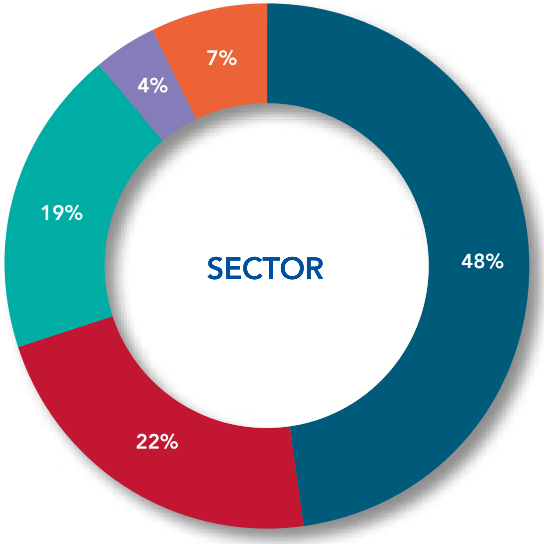
- **Accounting, Risk Evaluation and Financial Analysis for Banks**
- **Derivatives Credit Risk: Management and Measurement**
- **Exotic Derivatives**
- **Machine Learning in Finance: an Overview**
- **Market and Counterparty Risk: Management and Measurement**
- **Market Microstructure**
- **Operational and Reputational Risk: Management and Measurement**
- **Portfolio Performance Evaluation**
- **Selected Topics in the Trading and Modelling of Volatility and Other Risks**
- **Term Structure Modelling**
- **The Practice of FX Markets**
- **Topics in Quantitative Finance**
- **Topics in Structuring**

FINAL PROJECT / INTERNSHIP REPORT
MID JUNE - SEPTEMBER 2022

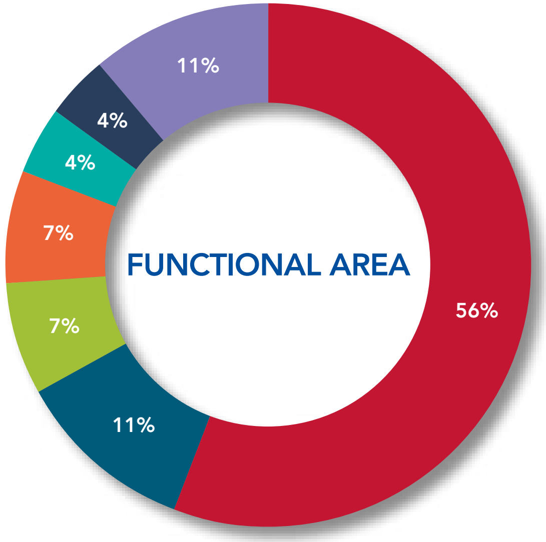
An individual project or an internship report concludes the program.

Bocconi reserves the right to change programs and schedules indicated in this brochure

PLACEMENT STATISTICS*



- Investment Bank
- Investment Company
- Non financial company or institution
- Commercial Bank
- Other**



- Risk Management
- Asset Management
- Research/Analysis
- Trading
- Sales
- Structuring
- Other***

* 2018 graduates, one year after graduation
**Financial Advisory, Central Bank
***Project Management, IT Advisory, Strategy

OUR ALUMNI

Emilio Pappalardo *(Italy) - Class of 2019*
Junior Portfolio Manager

MAFINRISK was an incredible opportunity for me to deepen my understanding of financial markets. What I find unique about the program is its broad range of topics, from Asset Management to Financial Econometrics, from Risk Management to Financial Statements Analysis. The different courses (Investments, Portfolio and Performance Evaluation, Derivatives, Fixed Income, Credit Risk) introduced me to the most widely used asset allocation models and gave me the tools to evaluate a large variety of financial instruments. They also helped me understand how the main fixed income and derivatives instruments work and provided me with the basics to handle hybrid instruments. I am now a junior portfolio manager at Sella SGR in Milan; without MAFINRISK, many of the tasks that I complete each day would be much more difficult or even impossible to handle. If I could go back I would definitely make the same choice.

Artem Chernichin *(Russia) - Class of 2019*
Global Markets Analyst

My year at MAFINRISK gave me a very unique life experience. Practice-oriented projects and teamwork with very different people helped me cultivate skills which are very important in a modern banking setting: the ability to manage your hours efficiently, divide tasks but help each other, present and defend your point of view. Comprehensive pricing, modeling and statistical courses introduced me to techniques and approaches that are widely used in the industry. I am currently working at Deutsche Bank's e-trading division in London, dealing with bonds and swaps; the Fixed Income and Term Structure Modeling courses helped me become familiar with how these products are priced and how risk is managed. I'm convinced that MAFINRISK greatly contributed to my chances of getting this job.

ATTENDANCE AND PROGRAM ASSESSMENT

Students are required to attend **at least 80%** of each course and are expected to be fully involved in all activities the program offers. Each course is assessed on the basis of an end-of-course examination or final project. In some courses, class participation and oral report presentations might be graded.

TUITION AND SCHOLARSHIPS

Tuition and fees for the 2021-2022 Master program is € 14,500. The fees cover most teaching materials and access to all Bocconi facilities.
A limited number of **scholarships** partially or fully covering tuition and fees may be offered by MAFINRISK corporate partners on the basis of merit criteria.
Moreover, students can benefit from special agreements between Bocconi University and some banks, which offer the possibility of requesting a loan at advantageous conditions.

Find out more at **www.unibocconi.eu/specializedmasterloans**

APPLICATION AND TIMELINE

We operate a two-stage admission process:

– **one early session in April**, only intended for applicants who have completed the GMAT or GRE
– **one regular session in June**, intended for both applicants who have completed the GMAT or GRE and applicants who plan to take the Bocconi Test
  Applicants with the GMAT/GRE can apply by the first or second application deadline, but not both. Candidates without the GMAT or the GRE are required to take the Bocconi Test.
– **1st application deadline (early session):**
  1 April 2021 (12:00 noon Italian Time [GMT +1])
– **2nd application deadline (regular session):**
  31 May 2021 (12:00 noon Italian Time [GMT +1])
– **Bocconi Test: 11 June 2021**

For information
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