

MFEF

Master in Financial Engineering and Fintech

4th EDITION • ONLINE • MAY



Specialize in the area that provides a deep understanding of the technological and quantitative tools that the **Financial Industry** demands.

The **Master de Formación Permanente** in Financial Engineering and Fintech provides a deep understanding of the technological and quantitative tools that the Financial Industry demands.

After finishing the program you will:

- Understand the new landscape of the financial industry
- Understand the new technologies and business models that are reshaping the Financial World
- Understand how these tools complement other traditional -formal- methods to analyze financial problems
- Be able to implement these technologies in practical problems

What do we offer?

- Our Master allows you to make your training **COMPATIBLE WITH YOUR WORK** thanks to an innovative learning methodology with weekly modules and flexible exams.
- A **SOUND PREPARATION** for a total of **60 ECTS credits**, which allows to cover in depth all the concepts and applications. Master designed for health professionals. No programming knowledge required.
- A **METHODOLOGY** focussed on practice and context, using cases, real situations and technological tools that allow you to learn from the beginning.
- An **UPDATED CURRICULUM**, which ensures that our students are obtaining the latest knowledge in line with the trends and demands of Society.
- We have arranged a team of **OUTSTANDING PROFESSORS** with hands-on experience in the area



Venue

FULLY ONLINE

Schedule

MAY 2023 -
APRIL 2024

Tuition Fee

5,900 € *

Scholarships

The University of Alcalá offers scholarships and flexible payment options

Programme

FINANCIAL COMPUTING

- R and Python Programming
- Data input and Output
- Flow Control. Plotting
- High performance computing

FINTECH BUSINESS MODELS AND TECHNOLOGIES

- Disruptive Technologies in Finance
- Business Models
- Case uses

DERIVATIVES VALUATION

- Fundamentals of Continuous Time Finance
- Valuation of Equity Derivatives
- Valuation of Fixed-income derivatives

FINANCIAL MODELLING

- Foundations of Probability
- Linear models for the conditional mean
- ARCH models
- Nonlinear extensions

ARTIFICIAL INTELLIGENCE

- Foundations of Artificial Intelligence and Machine Learning
- Supervised learning
- Unsupervised Learning
- Reinforcement Learning Algorithms

RISK MANAGEMENT

- Market Risk
- Credit Risk and XVA
- Model Risk

QUANTUM COMPUTING

- Quantum Computing Fundamentals
- Quantum Programming Workshop

BLOCKCHAIN TECHNOLOGY AND CRYPTOCURRENCIES

- Distributed Ledger Technology
- Cryptocurrencies
- Smart Contracts
- Applications to Investments, Real Estate, Banking, and Insurance

ALGORITHMIC TRADING

- Market Microstructure
- Pairs Trading
- High Frequency Trading

MASTER'S THESIS

Independent research paper performed by the student on one of the topics of the Master. The paper needs to be presented and defended against a Committee at the end of the Master

Candidate Profile

Professionals of the Financial sector who want to get exposed to these new technologies and business models or Graduates of different disciplines, particularly from STEM, who want to pursue a career in Finance

Information

To request further information to start your admission process, please contact our Admissions Department.

masterfintech@uah.es

<https://master-financialengineering-fintech.com/>