

MASTER 2 FTD (Finance, Technology, Data)

The goal of the M2 Program 'Finance Technology Data' is to prepare finance specialists capable of understanding the economics and the technology behind the current wave of the financial innovation.

The Program has been designed at the interface between financial economics and data science and will equip students with the following skills:

- Solid foundations in the financial and economic theory to critically access the value-added the technology-enabled business models and processes in finance (**blockchain and cryptoassets, crowdfunding, neobanks**, etc.) and learn from the state-of-the-art research.
- Programming skills in **R and Python** to apply the most recent techniques of econometrics, data science and big data analytics. Teaching is project-based: creating a WebApp to gather and display financial data, using natural language processing to convert Wall Street Journal textual content into quantitative indicators, creating scoring models with machine learning, analyzing interactions between users on Twitter or Bitcoin network, coding a smart contract.
- Understanding the global Fintech landscape through case studies of banks, fintechs, and Big Tech, presented by founders and professionals. Guest lecturers are invited from the leading European Universities.

ACADEMIC BACKGROUND

Entry into the master 2 is selective and requires a French master 1 degree in Money, Banking, Finance, Insurance or its foreign equivalents.

Students with a master degree in other fields (applied mathematics, computer science), a degree from a business school or an engineering school will be accepted if they have a basic understanding of economics, statistics and econometrics.

To be successful in this program, students should be interested in **quantitative methods**.

Since most of the courses are in English, working knowledge of English is essential.

APPLICATION

Candidates should apply:

- First on the webpage of the CFPB
<https://www.cfpb.fr>
- And then on the webpage of the University
<http://ecandidat.univ-paris1.fr>

The earlier you apply via the CFPB, the earlier you have confirmation about your acceptance. If you are admitted to the Master Program by the CFPB and University, our partners will send your CV to potential employers. The final acceptance to the program is conditional on signing an apprenticeship contract.

MAIN CAREER OPPORTUNITIES

Fintech sector is a growing sector that already offers a wide range of job opportunities, such as data scientist (machine learning, artificial intelligence), blockchain consultant, crypto project manager, etc.

Given the master's focus on the theory and quantitative methods, graduates will also be well prepared to pursue a PhD program, in particular in cooperation with the private or public sector ('thèse CIFRE').

OURS PARTNERSS

We have developed strong partnerships with Finance-Innovation, a cluster for innovation in the French financial sector, France FinTech, an association of Fintech start-ups, Le Swave, Fintech business accelerator, Fintech La Place, as well as the CFPB, the Training Institute of the French Banking Association.

If you are accepted to the Program, our partners will forward your CV and motivation letter to potential

employers. We also closely cooperate with the University of Pavia Fintech laboratory.

MAIN COURSES

Semestre 1

Finance:

- Asset pricing: 18h
- Financial market microstructure: 18h
- Strategic asset allocation: 18h

Data:

- Financial econometrics: 36h
- Quantitative methods in finance 1: 18h
- Applied data science in finance: 18h
- Scoring and machine learning: 18h

Fintech:

- Economics and technology of Blockchain: 18h
- Monetary economics and crypto-currencies: 18h
- Financial Innovation: 18h

Active learning:

- Fintech Research Seminar: 18h
- Fintech case study: 18h
- Team project: 6h

Semestre 2

Finance:

- Risk management: 18h
- Financial cycles and bubbles: 18h
- Topics in insurance: 18h
- Portfolio management: 18h

Data:

- Quantitative methods in finance 2: 18h
- Bitcoin network and machine learning: 18h
- Applied big data analytics in finance: 18h
- Data privacy: 6h

Fintech:

- Crypto project: 18h
- Fintech regulation and Regtech: 18h
- Insurtech: 18h
- Fintech and entrepreneurship: 18h

Active learning:

- Fintech Research Project: 18h
- Team project: 6h

APPRENTICESHIP PROGRAM

The Master Program «Finance Technology Data» is designed as an apprenticeship program which is highly valued by future employers in France (in French 'contrat d'apprentissage' or 'contrat de professionnalisation').

During the first intensive month, lectures take place every day. Afterwards, teaching takes place on Mondays and Tuesdays at the University. The rest of the week students gain professional experience in Fintech start-ups, banks, insurance companies, consulting companies, as well supervisory and regulatory bodies.

Apprenticeship programs offers a «co-tutorship» system in which each student is accompanied by a university professor and a corporate tutor who advise students on their final master thesis.



Responsable de la formation :

Olena HAVRYLCHYK

olen.havrylchyk@univ-paris1.fr

Secrétariat pédagogique :

Bureau des M2 - B15.08 - 15^e étage

Centre Pierre-Mendès-France

90, rue de Tolbiac, 75013 Paris

m2ftd.ees@univ-paris.fr - tél : 01 44 07 88 09

Site web de la formation :

m2-fin-tech-data.pantheonsorbonne.fr