master of science (MSC) in finance

GENERAL OUTLINE

Objectives
Understanding the recent dramatic evolution of the world of finance is fundamental for a career related to Finance. As such, HEC Lausanne, a leader in European Finance training, is proud to organize the orientation Financial Entrepreneurship and Data Science, where students will get training on entrepreneurship - that is, how to create their own company, as well as training on the challenges that large data-sets represent.

In this innovative orientation, students will get, in addition to a traditional finance curriculum, knowledge of what hides behind buzz words, such as robo-advertising, peer-to-peer lending, predictive markets, and cryptocurrencies. The aim of this new orientation is to provide you with the necessary knowledge and language enabling you to discuss with an engineer who will then implement your requests.

The Master of Science in Finance also offers two additional orientations to help the students gaining excellent quantitative knowledge and better understanding the working of firms and financial institutions:

Corporate Finance focuses on Investments, Distribution & Risk Management in order to conduct thorough financial analysis of various companies.

Asset and Risk Management requires highly quantitative skills in order to make the best possible investment decisions considering the financial risk.

In this program, students will understand how to manage portfolios by using quantitative methods and to assess the investments risks. In addition to providing strong theoretical bases, professors aim to teach the participants to apply their newly gained « know-how ».

The MSC in Finance has been recognized by the CFA Institute as a CFA Program Partner. Other partners are CAIA and FRM.

Degree awarded
Maîtrise universitaire ès Sciences en finance Master of Science (MSc) in Finance
Three mandatory orientations:
• Corporate Finance
• Asset and Risk Management
• Financial Entrepreneurship and Data Science

ECTS credits
120

Duration
4 semesters

Teaching language
English. Recommended level: C1.

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Additional information
www.unil.ch/hec/masters
**EDUCATIONAL CONTENT**

**Description**
The Master of Science (MSc) in Finance is a two-year program, 120 ECTS, constructed around four semesters. During the first semester students consolidate their previous Bachelor knowledge with the core courses in finance. From then on the philosophy is to have a combination of compulsory courses, courses specific to the orientations, and elective courses.

In the following semesters, all students will have compulsory courses in Fixed Income & Credit Risk and Derivatives, Finance Ethics, Topics in Finance. Then, there are courses specific to each orientation:

- **Asset and Risk Management**
  - Empirical Methods in Finance
  - Quantitative Asset and Risk Management
  - Alternative Investments
  - Financial Institutions

- **Corporate Finance**
  - Valuation
  - Financial Analysis
  - CFA General Challenge
  - M & A Corporate Structuring

- **Financial Entrepreneurship and Data Science**
  - Programming
  - (how to handle big databases)
  - Advanced Data Analysis
  - Blockchain & Distributed Ledgers
  - Entrepreneurship & Strategy
  - Private Equity & Venture Capital

Those courses will be complemented by elective courses to be chosen in a pool of available courses.

Practical aspects will be presented through additional elective courses. In each orientation, there is one class where students will get the opportunity to hone their soft skills.

The fourth semester is dedicated to the writing of a Master thesis, which may be done during an internship with a local or international financial institution. It is also possible to write an academic thesis, in many cases the first step towards a PhD.

**Mobility**
During their third semester, based on their previous performance, students may study in a university recognised by UNIL, under an exchange program. They may get a maximum of 30 credits in another institution. The prior authorisation of the Master’s committee is required for the recognition of credits earned abroad.

**Career prospects**
University studies develop many transversal skills: oral and written communication, critical, analytical and summarising faculties, abilities in research, etc.

This panoply of skills, combined with specialist knowledge acquired in the course of studies, is an excellent preparation for a wide range of employment opportunities in all sorts of industries. This Master prepares for high-level financial careers in companies requiring profound knowledge of corporate finance and risk management techniques:

- Banks (central, retail, private, and investment), insurance companies
- Wealth manager or advisor in family offices
- Consulting companies
- Corporate finance
- Pension funds
- Trading
- Government bodies, regulators, international institutions
- Venture capital, M&A, structuring, funding
- Research, doctoral studies, academic career

* the official study plan prevails.