Master of Science in FINANCIAL ENGINEERING

2-year program - 120 ECTS

Foundation courses 32 ECTS
- Accounting for Finance 2
- Econometrics 4
- Introduction to Finance (only for IF students) 6
- Macroeconomics 4
- Optimization methods 2
- Stochastic Calculus I,II 8
- Project in human and social sciences 6

Advanced courses 36 ECTS
- Advanced derivatives 4
- Derivatives 6
- Financial Econometrics 6
- Fixed income and credit risk 6
- Investments 6
- Quantitative risk management 4
- Real options and financial structuring 4

Optional subjects 22 ECTS
- Computational Finance 5
- Financial big data 3
- Financial applications of blockchains and distributed ledgers 2
- Global Business Environment 4
- Intelligent Agents 6
- Investing: a guide to doing the right thing 2
- Mathematical Modelling of Behavior 5
- Modern regression methods 5
- Numerical approximation of partial differential equations I 5
- Risk, rare events and extremes 5
- Time series 5
- Venture Capital 4

Master’s thesis in Industry 30 ECTS

Career prospects

At the end of their studies, MFE students have the perfect profile to start a career in a commercial or investment bank, a hedge fund, a rating or consulting company, an insurance company, or a trading firm. They will be able to apply their knowledge of cutting-edge techniques and their practical know-how to arrive at well-balanced and sound financial decisions. For students interested in an academic career, the MFE is also an ideal stepping stone to join a top-level PhD program in finance.

Admission Guidelines

- Bachelor’s degree in a technical discipline such as Mathematics, Physics, Computer science, Engineering or Economics.
- Fully at ease with computers. In particular, you should command either one programming language such as C, C++ or Java, or an interpreted language such as Matlab (Octave, SciLab) or Mathematica.
- Fluent in English. Success in an international examination of English such as the TOEFL is a plus but not mandatory for admission to the MFE.

Applications can be submitted online twice every year, from November 1 to January 15 and from February 15 to April 15.

If you need a visa to study in Switzerland, we recommend that you apply for the January deadline in order to allow for the completion of the visa procedure, which can take up to 3 months.

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