Master of Science in 
FINANCIAL ENGINEERING

2-year program - 120 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.

College of Management of Technology
master.epfl.ch/financial
contact: mfe@epfl.ch

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.

Credits

Foundation courses 34 ECTS
- Accounting for Finance: 2 ECTS
- Econometrics: 6 ECTS
- Introduction to finance: 6 ECTS
- Macrofinance: 6 ECTS
- Quantitative methods in finance: 4 ECTS
- Stochastic Calculus I: 4 ECTS
- Project in human and social sciences: 6 ECTS

Advanced courses 40 ECTS
- Advanced derivatives: 4 ECTS
- Credit risk: 4 ECTS
- Derivatives: 6 ECTS
- Financial Econometrics: 6 ECTS
- Fixed income analysis: 6 ECTS
- Investments: 6 ECTS
- Real options and financial structuring: 4 ECTS
- Stochastic Calculus II: 4 ECTS

Optional subjects 16 ECTS
- Advanced regression: 5 ECTS
- Advanced topics in financial econometrics: 4 ECTS
- Computational Finance: 5 ECTS
- Financial big data: 2 ECTS
- Global Business Environment: 4 ECTS
- Intelligent Agents: 6 ECTS
- Investing: a guide to doing the right thing: 2 ECTS
- Mathematical Modelling of Behavior: 5 ECTS
- Numerical approximation of PDE's I: 5 ECTS
- Quantitative Risk Management: 4 ECTS
- Risk, rare events and extremes: 5 ECTS
- Time series: 5 ECTS
- Venture Capital: 4 ECTS

This program includes an 8-week compulsory internship in industry.