1. List of courses

The following are the courses open to students pursuing a minor in Financial Engineering starting in the Fall of 2021. Detailed course descriptions can be accessed on the website of the Master in Financial Engineering at https://www.epfl.ch/schools/cdm/college-of-management-of-technology/education/financial-engineering/master-in-financial-engineering/curriculum/

Please note that many of the second and third semester finance classes have first semester classes as prerequisites. Consult the recommended study plan on page three of this document for several suggestions on how to structure your minor.

**Semester 1:**

- **FIN–401 Introduction to finance** M1, 6 ECTS
  - No prerequisites

- **FIN–403 Econometrics** M1, 4 ECTS
  - No prerequisites

- **FIN–406 Macrofinance** M1, 4 ECTS
  - No prerequisites

- **FIN–411 Accounting for finance** M1, 2 ECTS (special schedule)
  - No prerequisites

- **FIN–413 Financial applications of blockchains and distributed ledgers** M1, 3 ECTS (special schedule)
  - No prerequisites

- **FIN–415 Stochastic calculus** M1, 6 ECTS
  - No prerequisites

- **CS–430 Intelligent agents** M1, 6 ECTS
  - No prerequisites, but an introductory course to artificial intelligence recommended
Semester 2

- **FIN–404 Derivatives** M2, 6 ECTS
  - Prerequisites: Introduction to finance, stochastic calculus

- **FIN–405 Investments** M2, 6 ECTS
  - Prerequisites: Introduction to finance, Stochastic calculus, Econometrics

- **FIN–407 Financial econometrics** M2, 6 ECTS
  - Prerequisites: Econometrics

- **FIN–420 Financial intermediation** M2, 4 ECTS
  - Prerequisites: Introduction to finance

- **MATH–342 Time series** M2, 5 ECTS
  - No prerequisites

Semester 3

- **FIN–410 Real options and financial structuring** M3, 4 ECTS (special schedule)
  - Prerequisites: Derivatives, Introduction to finance, Stochastic calculus

- **FIN–416 Interest rate and credit risk models** M3, 6 ECTS
  - Prerequisites: Derivatives, Econometrics, Introduction to finance, Stochastic calculus

- **FIN–417 Quantitative risk management** M3, 4 ECTS
  - No prerequisites, but several recommended classes – check course book

- **FIN–418 Machine learning for finance** M3, 2 ECTS
  - No prerequisites, but several recommended classes – check course book

- **FIN–472 Computational finance** M3, 5 ECTS
  - No prerequisites, but stochastic calculus, numerical analysis and derivatives strongly recommended

- **FIN–503 Advanced derivatives** M3, 4 ECTS
  - Prerequisites: Derivatives, Introduction to finance, Investments, Stochastic calculus

- **FIN–522 Venture capital** M3, 4 ECTS
  - Prerequisites: Introduction to finance

- **FIN–525 Financial big data** M3, 3 ECTS
  - Prerequisites: Good programming skills plus good knowledge of probability and statistics
2. Examples of study plans

As program director of the financial engineering section, I would like you to get most out of your minor. The following two study plans are good examples of two possible curricula for the minor in Financial Engineering. The first orientation ("mainstream finance") gives you exposure to a wide variety of the most important concepts in finance. The second orientation ("quantitative finance") emphasizes the technical aspects of the finance domain. Other course combinations are of course possible, provided the prerequisites for each course described on the previous pages are fulfilled.

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3. Staying up to date