Master of Science in
APPLIED MATHEMATICS

2-year program - 120 ECTS

Optional courses
40 ECTS

Industrial
internship
30 ECTS

Project in social
and human
sciences
6 ECTS

Other engineering
courses
4 ECTS

Semester project
10 ECTS

Master’s thesis
30 ECTS

Students must choose at least 30 ECTS worth of courses labelled A.

Optional courses are classified in the following tracks:

• Algebra and geometry
• Algorithmic and discrete mathematics
• Analysis
• Numerical analysis
• Probability and interactions / Statistics

On top of the Optional courses (40 ECTS) students must choose 4 ECTS in another engineering program, except if they opt for a 30 ECTS engineering minor.

Approved courses sample:

• Applied data analysis
• Artificial neural networks
• Biomedical signal processing
• Data visualisation
• Deep learning
• Information security and privacy
• Information theory and coding
• Investments
• Mathematics of data
• Optimisation for machine learning
• Quantitative risk management
• Relativity and cosmology
• Signal processing for communications
• Statistical signal and data processing through applications

Students opting for a minor in engineering may shorten their industrial internship.

School of Basic Sciences
go.epfl.ch/master-applied-mathematics
Contact: sma@epfl.ch