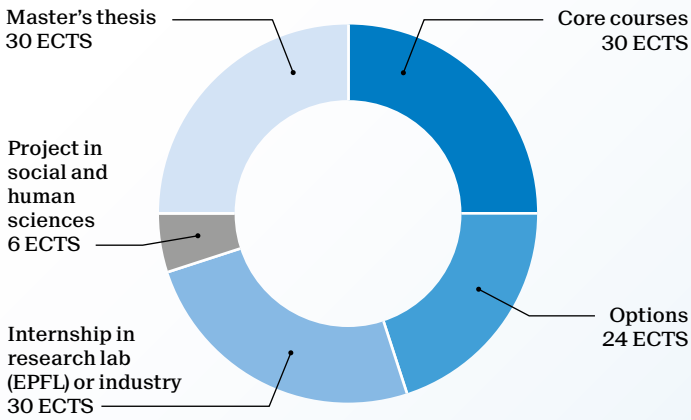


Master of Science in STATISTICS

2-year program - 120 ECTS



Students may choose a minor (30 ECTS) e.g.:

- Computational science and engineering
- Computer science
- Data science
- Environmental science and engineering
- Financial engineering

Career prospects

After graduation, students can directly enter the job market or continue their university studies by applying to a doctoral program. The realization that 'data is the new oil' means that statisticians and data analysts are sought-after and valued in every domain of industry, economics, finance, government, science, and in the health and social sciences, so students' imagination and personal interests will define how the skills obtained in this MSc can be applied on whatever path a graduate chooses later. The combination of a theoretical background, experience with cutting-edge computational techniques, practical team-working and communication skills that the courses provide will make graduates valued collaborators in any data-rich environment.

Entry requirements

- A Bachelor's degree in Mathematics with an excellent academic record
- Holders of a Bachelor's degree in Physics or a field related to mathematics may also apply

School of Basic Sciences
go.epfl.ch/master-statistics
 Contact: stat.msc@epfl.ch

	Credits
Core courses	30
Applied statistics	5
Multivariate statistics	5
Randomization and causation	5
Regression methods	5
Statistical computation and visualization	5
Statistical inference	5

Options	24
Biostatistics	
Applied biostatistics	5
Biostatistics	5
Genetics and genomics	4
Genomics and bioinformatics	4
Infection biology	5
Neuroscience: behavior and cognition	5
Nutrition: from molecules to health	4
Randomness and information in biological data	4
Statistical genetics	5
Statistics for genomic data analysis	5
Stochastic processes	5
Time series	5
Environmental statistics	
Exploratory data analysis in environmental health	4
Model parameter estimation and uncertainty quantification	5
Multivariate statistics with R in the environment	4
Remote sensing	5
Risk, rare events and extremes	5
Spatial statistics and analysis	5
Time series	5
Finance	
Computational finance	5
Derivatives	6
Financial big data	3
Machine learning for finance	3
Quantitative asset and risk management	6
Risk analytics	3
Stochastic calculus	6
Stochastic processes	5
Stochastic simulation	5
Time series	5
Mathematical statistics	
Gaussian processes	5
Mesure et intégration	5
Probability theory	5
Statistical theory	5
Stochastic processes	5
Time series	5
Statistical data science	
Combinatorial statistics	5
Convex optimization	4
Data visualization	4
Foundations of data science	6
Learning theory	4
Mathematics of data	6
Nonlinear optimization	6
Optimization for machine learning	5
Statistical analysis of network data	5
Statistical machine learning	5