

## 1st Semester

## 2nd Semester

## 3rd Semester

## 4th Semester

### Co-requisites

- up to 30 ECTS

Part or all of the complementary program may be required upon admission

Mathematics I  
Statistics I  
Statistical Modelling  
...

### Core Courses - 33 ECTS

Mixed Linear Models  
The Statistical Analysis of Time Series  
Research Seminar in Statistics

Analytics Consulting  
Generalized Linear and Additive Models  
Multivariate Analysis  
Sampling Techniques

Courses of the 1st semester may be followed during the 3rd semester - if the completion of a complementary program is necessary

### Elective Courses - 27 ECTS

Choice from a list of courses, may also be followed in other GSEM Master programs and/or in other UNIGE Departments - subject to approval by the Scientific Committee

Advanced Statistical Inference	Applications des méthodes statistiques modernes par ré-échantillonnage
Advanced Topics in Survey Methods	Concepts et langages orientés objets
Data-driven Impact Evaluation	Data Mining
Models and Empirical Methods for Asset Pricing	Experimental Design: Theory and Practice
Econometrics	Introduction à la planification et l'analyse des cas uniques
Estimation statistique	Invited Lectures in Statistics - Introduction to Causal Learning
Financial Econometrics	Machine Learning
Numerical Optimization and Simulation	Modèles à équations structurales
Optimization with Applications I	Modèles multiniveaux
Selected Topics in Statistics (not in 2021-2022)	Model Selection in High Dimensions
Statistiques et optimisation	Optimization with Applications II
Stochastic Processes in Finance	Workshop 2A: Practice of Sustainable Human Development
Teaching Statistics	

Courses of the 1st semester may be followed during the 3rd semester - if the completion of a complementary program is necessary

### Master's Thesis - 30 ECTS

with the possibility of an internship min. 10 weeks