Master of Science in Statistics
(from the academic year 2020-2021)

Curriculum M Sc in Statistics (90 ECTS)

GENERAL STRUCTURE	ECTS	Status
a) Courses	**60**	**compulsory**
Module 1	21	
Module 2	21	
Module 3 - Elective courses	18	
b) Master thesis or internship with report	**30**	**compulsory**
Total ECTS MSc in Statistics	**90**	

Modules / courses	Hours per week	Semester	ECTS per module/ course	Teacher(s)	Participant / contributor	Evaluation mode
a) Courses (60 ECTS)						
Module 1			**21 ECTS**			
Probability theory	2+2	A	6	Prof. A. Valette	Assist.	Oral, 30 minutes
Inferential statistics and test theory	4	A	6	Prof. J.-Y. Dauxois		Written, 2 hours
Advanced regression methods	2+2	A	6	Prof. Y. Tillé	Assist.	Written, 2 hours
Multivariate analysis	2	A	3	Prof. Y. Tillé		Written, 2 hours
Module 2			**21 ECTS**			
Seminar of statistical software	2	A	3	Prof. A. Matei		CA (graded)
Survey sampling 1	2	A	3	Prof. Y. Tillé		Written, 2 hours
Bayesian statistics	2	S	3	Dr P.-Y. Deléamont		Written, 2 hours
Generalized linear model	2	S	3	Dr P.-Y. Deléamont		CA (graded)
Seminar of applied statistics	2	S	3	Prof. J. Zuber		CA (graded)
Time series analysis	2+2	S	6	Dr C. Chevalier	Assist.	CA (graded)
Module 3 - Elective courses			**Choose 18 ECTS**			
Nonparametric statistics	2	A	3	Dr P.-Y. Deléamont		Written, 2 hours
Statistical learning	2	S	3	Dr P.-Y. Deléamont		Written, 2 hours
Computational statistics	4	S	6	Dr A. Matei		CA (graded)
Design of experiments	2	S	3	Prof. Y. Tillé		Written, 2 hours
Survey sampling 2	2	S	3	Prof. Y. Tillé		Written, 2 hours
Other elective course (see list)		A or S	max. 6			

b) Master thesis or internship (30 ECTS)

Master thesis or internship with report			30 ECTS			CA (graded) [1]

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Modules / courses	Hours per week	Semester	ECTS per module/ course	Teacher(s)	Participant / contributor	Evaluation mode

Elective courses list (max. 6 ECTS)

Modules / courses	Hours per week	Semester	ECTS per module/ course	Teacher(s)	Participant / contributor	Evaluation mode
Elective courses			max. 6 ECTS			
Informatique générale: Programmation I (in French)	2+2	A	6	Prof. P. Felber		CA (graded)
Structure de données et algorithmique (in French)	2+2	A	6	Dr. A. Sandoz	Assist.	CA (graded)
Courses at the Faculty of Economics and Business						
Business Analytics	4	S	6	*Dr P. Cotofrei*		*
Data Management	4	A	6	*Dr.I. Ciorascu*		*
Economic Statistics	2	A	3	*Prof. M. Zarin*		*
Asset Pricing	4	A	6	*Prof. Kroencke*		*
Derivatives	4	A	6	*Prof. D. Ardia*		*
Portfolio Optimization	2	A	3	*Prof. F. Sonney*		*
Programming	2	S	3	*E. Simon*		*
Applied Econometrics	2+2	S	6	*Prof. M. Zarin*		*
Corporate Finance	4	S	6	*Prof. C. Salva*		*
Global Supply Chain Management	4	A	6	*Dr.Y. Nieto*		*
Course at the Faculty of Arts						
Linguistique du français moderne: Linguistique de corpus: méthodes et analyse (In French)	2	S	5	*Prof. C. Rossari*		*

Total of Master in Statistics	90 ECTS

Abbreviations
CA (graded) = continuous assesment that is graded, modalities fixed in course descriptives
[1] Report (graded)
* Check on course descriptive of the Faculty of Economics and Business of of the Faculty of Arts
A = autumn semester / S = spring semester

Information
Master coordinator: Prof. **Y. Tillé** (yves.tille@unine.ch)

Exams and regulation
Candidates must be registerd in IS-Academia for both courses and exams
For regulation, please consult the homepage of the Faculty of Sciences, www.unine.ch/sciences (règlement d'études et d'examens" and existing directives) or the administrative staff of the Faculty.