

**Curriculum M Sc in Statistics (90 ECTS)**

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

Modules / courses	Hours per week	Semester	ECTS per module/ course	Teacher(s)	Participant / contributor	Evaluation mode
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**a) Courses (60 ECTS)**

Module 1			21 ECTS			
Probability theory	2+2	A	6	Dr H. Mercier	Assist.	CA (graded)
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	Dr 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		CA (graded)
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		CA (graded)
Statistical learning	2	S	3	Dr P.-Y. Deléamont		CA (graded)
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)**

<b>Master thesis or internship with report</b>			<b>30 ECTS</b>			CA (graded) <sup>1</sup>
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Modules / courses	Hours per week	Semester	ECTS per module/course	Teacher(s)	Participant / contributor	Evaluation mode
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**Elective courses list (max. 6 ECTS)**

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)
<b>Courses at the Faculty of Economics and Business</b>						
<i>Probabilistic Algorithms</i>	4	A	6	<i>Dr P. Cotofrei</i>		*
<i>Data Warehousing</i>	4	S	6	<i>Dr.I. Ciorascu</i>		*
<i>Economic Statistics</i>	2	A	3	<i>Prof. M. Zarin</i>		*
<i>Asset Pricing</i>	4	A	6	<i>Prof. M. Dubois</i>		*
<i>Derivatives</i>	4	A	6	<i>Prof. D. Ardia</i>		*
<i>Portfolio Optimization</i>	2	A	3	<i>Prof. F. Sonney</i>		*
<i>Programming</i>	2	S	3	<i>Dr P. Cotofrei</i>		*
<i>Applied Econometrics</i>	2+2	S	6	<i>Prof. M. Zarin</i>		*
<i>Corporate Finance</i>	4	S	6	<i>Prof. C. Salva</i>		*
<i>International Operations and Logistics</i>	4	A	6	<i>Dr.Y. Nieto</i>		*
<b>Course at the Faculty of Arts</b>						
<i>Linguistique du français moderne: Linguistique de corpus: méthodes et analyse (In French)</i>	2	S	5	<i>Prof. C. Rossari</i>		*

<b>Total of Master in Statistics</b>	<b>90 ECTS</b>
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**Abbreviations**

CA (graded) = continuous assesment that is graded, modalities fixed in course descriptives

<sup>1</sup> 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](http://www.unine.ch/sciences) (règlement d'études et d'examens" and existing directives) or the administrative staff of the Faculty.**