

Modul I: *Data Analytics*

Title	Language	ECTS	Lecturer
! Introduction to Deep Learning (former name: Machine Learning) (SIN.08022)	E	5.0	Bastian Grossenbacher
! Databases* (SIN.03024)	E	6.0	Hans-Georg Fill
Data Analytics in Python (SDN.00007)	E	5.0	Scius-Bertrand Anna / Lalanne Denis / Andreas Fischer
Pattern Recognition (UE-SIN.08608)	E	5.0	Andreas Fischer
Biostatistics I - generalized linear models and mixed effects models (SBL.20001)	E	3.0	Rudolf Philippe Rohr
Biostatistics II - multivariate analysis (SBL.20002)	E	3.0	Rudolf Philippe Rohr
Machine learning - Expectation Maximization and Markov Chain Monte Carlo (SBL.30002)	E	5.0	Daniel Wegmann
Introduction to R (SBL.30001 replaces SBC.07108)	E	2.0	Daniel Wegmann
Programming with R (SBC.07109)	E	1.0	Daniel Wegmann
Programmation Scientifique* (pour sciences biomédicales) (SIN.00121)	F	3.5	Philippe Cudré-Mauroux (verantwortlich)
<i>Data Analysis and Statistics with the R Programming Language (SME.07700) (Fall 2020 and Fall 2021)</i>	<i>E</i>	<i>3.0</i>	<i>Jean-Pierre Bresciani</i>
Inférence, Évaluation et Sélection de Modèles (EIG.00120)	F	4.5	Laurent Donzé
Méthodes de Classification (EIG.00121)	F	4.5	Laurent Donzé
Statistique Bayésienne (EIG.00027)	F	4.5	Laurent Donzé
Thèmes Choisis de Statistique Multivariée (EIG.00029)	F	4.5	Laurent Donzé
Big Data Methods (EEP.00142)	E	4.5	Martin Huber
Econometric Methods and Applications (EEP.00496)	E	6.0	Martin Huber
Policy and Impact Evaluation (EEP.00143)	E	4.5	Martin Huber
Advanced Topics in Data Analytics and Machine Learning (EEP.00517)	E	1.5	Martin Huber
Project Seminar: Finance with R (EGE.00449)	E	4.5	Martin Wallmeier
Social Media Analytics (SIN.08609)	E	5.0	Philippe Cudré-Mauroux
Python Programming (I09.00005)	E	3.0	Hans-Georg Fill/Härer Felix

! The two courses marked with «!» are mandatory.

* Courses marked with «*» may only be selected if they have not already been validated for a BA program. No more than 9 ECTS from BA courses can be accredited within the MSc program. (Programmation Scientifique can only be taken if Databases has been done within a BA program.)