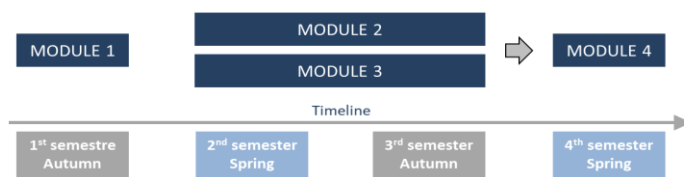


HEC Lausanne
MSc Actuarial Science
 120 credits ECTS
 Study Plan 2022-2023

Structure of the Master



Courses	Professors	Semesters				ECTS	Lang	Eval
		1 st sem Autumn	2 nd sem Spring	3 rd sem Autumn	4 th sem Spring			
MODULE 1: Average set (≥4.0) of compulsory courses - 30 credits ECTS								
Insurance Economics	Wagner J.	●				3	E	W
Mathematics of Compound Interest	Arnold S.	●				3	E	W
Principles of Finance	Goyal A.	●				6	E	W
Probability and Stochastic Processes	Albrecher H.	●				6	E	W
Quantitative Methods for Actuaries	Loisel S.	●				6	E	W
Computational Tools for Actuaries	Zucchini G.	●				6	E	O
MODULE 2: Average set (≥4.0) of compulsory courses - 48 credits ECTS (24 credits per semester)								
Life Contingencies I	Dufresne F.		●			6	E	W
Loss Models	Hashorva E.		●			6	E	W
Ratemaking and Claims Reserving	Hieber P.		●			3	E	W
Risk Theory	Albrecher H.		●			6	E	W
Social insurance	Arnold S.		●			3	E	W
Actuarial Modelling	Hashorva E.			●		6	E	W
Asset and Liability Management for Actuaries	Wagner J.			●		6	E	W
Credibility Theory	Smith N.			●		3	E	W
Insurance Analytics	Hieber P.			●		3	E	O
Life Contingencies II	Ratovomirija G.			●		6	E	W
MODULE 3: Optional courses - 12 credits ECTS (6 credits per semester)								
Simulation Methods in Finance and Insurance	Tamraz M.		●			3	E	V
Advanced Programming	Scheidegger S.		●			6	E	V
Time Series	Hashorva E.		●			3	E	W
Actuarial Data Science	Nagler Th.			●		3	E	W
Blockchain and Crypto Economy	Ivliev S.			●		3	E	W
Financial Accounting	Markarian G.			●		6	E	W
Investments	Cujen J.			●		6	E	W
Mathématiques des caisses de pension	Said L.			●		6	F	W
Prévoyance professionnelle	Monnard Séchaud C.			●		3	F	O
MODULE 4: Master thesis (compulsory) - 30 credits ECTS								
Thesis (Research or Internship)	Choose your thesis director				●	30	E/F	W-O

Thesis Information

1. Internships must be full time or at least 80% for a minimum of 12 weeks.
2. Only students having acquired 90 ECTS credits from Modules 1, 2 and 3 are allowed to present their thesis.
3. [Research thesis guidelines here.](#)
4. [Internship thesis guidelines here.](#)

Legend:

ECTS: Credits

Lang: Teaching language (F: French; E: English)

Eval: Type of evaluation (W: Written exam; O: Oral exam; V: Validation(s) only)

General Information:

1. [Read the 2022-2023 Study Regulation](#)
2. Courses are delivered face-to-face on campus
3. The pandemic has shown us that circumstances beyond our control may require us to make adjustments to study plans during the academic year.