HEC Lausanne

MSc Actuarial Science

Study Plan 2020-2021

Advices and information

1. Read the Regulations of this program.
2. This program has 120 credits.
3. Take 30 ECTS per semester to finish in 4 semesters.
4. For semesters P21 and A21, take 24 credits of Module 2 and 6 credits of Module 3 per semester.

Legend

A20: Autumn 2020 / A21: Autumn 2021
P21: Spring 2021 / P22: Spring 2022
ECTS: credits / Hrs: Hours
L: Language
Ev: Type of evaluations - W: Written; O: Oral; TH: Take-Home

Courses	Professors	Semesters				ECTS	Hrs	L	Ev
		A20	P21	A21	P22				

MODULE 1: Series of 30 compulsory credits

Click

Courses	Professors	A20	P21	A21	P22	ECTS	Hrs	L	Ev
Insurance Economics	Wagner J.					3	2	E	W
Mathematics of Compound Interest	Arnold S.					3	2	E	W
Principles of Finance	Goyal A.					6	4	E	W
Probability and Stochastic Processes	Albrecher H.-J.					6	4	E	W
Quantitative Methods for Actuaries	Gruetzner G, Rudnytskyi I.					6	2	E	W
Computational Tools for Actuaries	Zucchinetti G.					6	4	E	W

MODULE 2: 48 compulsory credits (take 24 credits per semester)

Courses	Professors	A20	P21	A21	P22	ECTS	Hrs	L	Ev
Life Contingencies I	Dufresne F.					6	4	E	W
Loss Models	Hashorva E.					6	4	E	W
Ratemaking and Claims Reserving	Trufin J.					3	2	E	W
Risk Theory	Albrecher H.					6	4	E	W
Social insurance	Arnold S.					3	2	E	W
Actuarial Modelling	Hashorva E.					6	4	E	W
Asset and Liability Management for Actuaries	Wagner J.					6	4	E	W
Credibility Theory	Smith N.					3	2	E	W
Life Contingencies II	Dufresne F. (sauf si nouveau prof. Hiber signe son contrat)					6	4	E	W
Life Insurance Actuarial Controlling	Darbellay C.					3	2	E	W

MODULE 3: 12 optional credits (take 6 credits per semester)

Courses	Professors	A20	P21	A21	P22	ECTS	Hrs	L	Ev
Simulation Methods in Finance and Insurance	Tamraz M.					3	2	E	W
Programming	Scheidegger S.					6	4	E	TH
Time Series	Hashorva E.					3	2	E	W
Financial Accounting	Markarian G.					6	4	E	W
Blockchain & Distributed Ledgers	Schmelzer T.					3	2	E	W
Insurance Analytics	Trufin J. (sauf si nouveau prof. Hiber signe son contrat)					3	2	E	O
Investments	Goyal A.					6	4	E	W
Mathématiques des caisses de pension	Arnold S.					6	4	F	W
Topics in Finance	Ballocchi G.					3	2	E	W
Prévoyance professionnelle	Monnard Séchaud C.					3	2	F	W

MODULE 4: 30 compulsory credits

Courses	Professors	A20	P21	A21	P22	ECTS	Hrs	L	Ev
Academic thesis; or internship & internship thesis	Choose your supervisor					30		E/F	W-O