

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

*Legend*

ECTS: credits  
 Ev: Type of evaluations - W: Written; O: Oral  
 A20: Autumn 2020  
 P21: Spring 2021

Courses	Professors	Semesters				ECTS	Hrs	L	Ev
		A20	P21	A21	P22				

**MODULE 1: Series of 30 compulsory credits**

Cliquez →

<a href="#">Insurance Economics</a>	Wagner J.					3	2	E	W
<a href="#">Mathematics of Compound Interest</a>	Arnold S.					3	2	E	W
<a href="#">Principles of Finance</a>	Goyal A.					6	4	E	W
<a href="#">Probability and Stochastic Processes</a>	Albrecher H.-J.					6	4	E	W
<a href="#">Quantitative Methods for Actuaries</a>	Gruetzner, G. Rudnytskyi, I.					6	2	E	W
<a href="#">Computational Tools for Actuaries</a>	Zucchinetti, G.					6	4	E	W

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

<a href="#">Life Contingencies I</a>	Dufresne F.					6	4	E	W
<a href="#">Loss Models</a>	Hashorva E.					6	4	E	W
<a href="#">Ratemaking and Claims Reserving</a>	Trufin J.					3	2	E	W
<a href="#">Risk Theory</a>	Albrecher H.					6	4	E	W
<a href="#">Social insurance</a>	Arnold S.					3	2	E	W
<a href="#">Actuarial Modelling</a>	Hashorva E.					6	4	E	W
<a href="#">Asset and Liability Management for Actuaries</a>	Wagner J.					6	4	E	W
<a href="#">Credibility Theory</a>	Smith N.					3	2	E	W
<a href="#">Life Contingencies II</a>	Hieber P.					6	4	E	W
<a href="#">Life Insurance Actuarial Controlling</a>	Darbellay C.					3	2	E	W

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

<a href="#">Simulation Methods in Finance and Insurance</a>	Tamraz M.					3	2	E	W
<a href="#">Programming</a>	Scheidegger S.					6	4	E	W
<a href="#">Time Series</a>	Hashorva E.					3	2	E	W
<a href="#">Financial Accounting</a>	Markarian G.					6	4	E	W
<a href="#">Blockchain &amp; Distributed Ledgers</a>	Zaremba R.					3	2	E	W
<a href="#">Insurance Analytics</a>	Hieber P.					3	2	E	W
<a href="#">Investments</a>	Goyal A.					6	4	E	W
<a href="#">Mathématiques des caisses de pension</a>	Arnold S.					6	4	F	W
<a href="#">Topics in Finance</a>	Balocchi G.					3	2	E	W
<a href="#">Prévoyance professionnelle</a>	Monnard Séchaud C.					3	2	F	W

**MODULE 4: 30 compulsory credits**

Academic thesis; or intership & intership thesis	Chose your supervisor					30		E/F	W-O
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