



5 credits	30.0 h + 15.0 h	Q1
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Teacher(s)	Devolder Pierre ;Gilles Françoise (compensates Hainaut Donatien) ;Hainaut Donatien ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	Study of the main kinds of life insurance products in terms of pricing and reserving
Aims	<p>The aim of this course is to present the basic principles of life insurance theory. After a short introduction to life tables, the main kinds of life insurance products are studied in detail regarding premium and reserve calculations. An introduction to modern life products is also presented. At the end of this course the students must be familiar with life calculations and be able to price life products.</p> <p>1</p> <p>-----</p> <p><i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i></p>
Content	Content The following topics will be developed: 1. Classical life tables 2. Adjustment of a life table 3. Prospective life table 4. Pure Endowment insurance 5. Annuities 6. Life insurance 7. Endowment insurance 8. Loadings 9. Mathematical reserves 10. Profit sharing 11. Universal life products 12. Unit linked contracts Methods In-class activities X0 Lectures X0 Exercices/PT At home activities X0 Exercices to prepare the lecture X0 Paper work
Bibliography	<p>Les transparents se basent principalement sur</p> <ul style="list-style-type: none"> • Dickson, D.C.M., Hardy, M.R., Waters, H.R. (2009). Actuarial Mathematics for Life Contingent Risks. Cambridge University Press.
Other infos	Evaluation : Class participation and written examination, in French Support : Slides provided through icampus
Faculty or entity in charge	LSBA

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Actuarial Science	ACTU2M	5		
Master [120] in Mathematical Engineering	MAP2M	5		
Master [120] in Mathematics	MATH2M	5		