


5 credits	30.0 h	Q2
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Teacher(s)	Denuit Michel ;Trufin Julien (compensates Denuit Michel) ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	<i>The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.</i>
Main themes	Theory of non life insurance
Aims	<p>The aim of this course is to provide students with advanced skills in the methods of pricing of non life products. At the end of the course the students must be able to model the claim process and to establish a priori and a posteriori pricing plans.</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: - Models of claim arrival - Models of claim frequency - models of claim amount - Models for big claims and extreme theory - Credibility theory and bonus malus systems - Stochastic methods of provision. 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"> <li>•Denuit, M., Charpentier, A. (2005). Mathématiques de l'Assurance Non-Vie. Tome II: Tarification et Provisionnement. Collection Economie et Statistique Avancées, Economica, Paris.</li> <li>•Denuit, M., Maréchal, X., Pitrebois, S., Walhin, J.-F. (2007). Actuarial Modelling of Claim Counts: Risk Classification, Credibility and Bonus-Malus Systems. Wiley, New York.</li> </ul>
Other infos	<p>Evaluation : Class participation and written examination, in French Support : Slides provided through icampus</p> <p>References : The course is based on the book: "Mathématiques de l'assurance non vie", Tome 2 (Denuit/Charpentier, Economica, Paris)</p>
Faculty or entity in charge	LSBA

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Actuarial Science	<a href="#">ACTU2M</a>	5	<a href="#">LFSAB1105</a> AND <a href="#">LSTAT2020</a> AND <a href="#">LACTU2010</a> AND <a href="#">LACTU2060</a>	
Master [120] in Statistic: General	<a href="#">STAT2M</a>	5		