

Due to the COVID-19 crisis, the information below is subject to change, in particular that concerning the teaching mode (presential, distance or in a comodal or hybrid format).

3 credits	15.0 h	Q1
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Teacher(s)	Walhin Jean-François ;
Language :	English
Place of the course	Louvain-la-Neuve
Prerequisites	<p>Knowledge in English, level of course LANGL1330.</p> <p>Knowledge of the concepts at the level of the courses:</p> <ul style="list-style-type: none"> <li>• Actuariat des assurances dommages (LACTU2010)</li> <li>• Actuariat de l'assurance-vie (LACTU2030)</li> <li>• Quantitative Risk Management (LACTU2210)</li> <li>• Actuariat des assurances de personnes (LACTU2230)</li> </ul> <p><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></p>
Main themes	The reinsurance market is presented. The different kinds of treaties are described. The pricing of excess loss reinsurance is deeply analysed. The reasons why an insurance company has to be reinsured are explained; finally the point of view of the insurer is adopted in terms of optimality of reinsurance arrangements.
Aims	<p>Contribution of the course to learning outcomes in the Master in Actuarial Sciences programme. By the end of this activity, students will have made progress in:</p> <ul style="list-style-type: none"> <li>• As a priority, the following LO : 1.1, 1.2, 1.3, 1.4, 2.1</li> <li>• In a secondary way the following LO : 1.6, 1.7, 1.8, 2.3, 2.4, 2.5</li> </ul> <p>At the end of this course, students will be able to:</p> <ul style="list-style-type: none"> <li>• Analyze the quality of conventional reinsurance contract</li> <li>• Criticize the price as well as the analyzes relating to the optimality of the reinsurance structure</li> </ul> <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>
Evaluation methods	<p><b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b></p> <p>Written exam with no documents IF the exam is allowed in a classroom.</p> <p>Oral exam through Teams IF the exam is not allowed in a classroom.</p> <p>A homework (not more than 3 pages) will be submitted to the students and will be used for the evaluation of the exam. For the September exam, another homework will be submitted and will be used for the evaluation of the exam.</p>
Teaching methods	<p><b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b></p> <p>Ex-cathedra course.</p> <p>Some parts of the course might be covered through scientific papers / book chapters to be read / prepared by the students and followed by a Q&amp;A session</p>
Content	Content The following topics will be developed: Introduction Why a reinsurance Proportional reinsurance Non proportional reinsurance Pricing of excess of loss treaties Capital allocation Optimal reinsurance Methods In-class activities X0 Lectures X0 Exercices/PT At home activities X0 Exercices to prepare the lecture X0 Paper work
Bibliography	<p>Transparencies are mainly based on :</p> <ul style="list-style-type: none"> <li>• Walhin J.F. (2012). La Réassurance, 2ème édition. Larcier.</li> <li>• Bauwens, V., Walhin, J.F. (2008). La Titrisation du Risque d'Assurance. Larcier.</li> </ul>

Faculty or entity in charge	LSBA
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<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Actuarial Science	ACTU2M	3	LACTU2010 AND LACTU2030 AND LACTU2210 AND LACTU2230	