

5.0 credits	30.0 h + 22.5 h	2q
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Teacher(s) :	Segers Johan ; Johannes Jan ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	<p>The course requires a knowledge of measure theory. It covers the essential tools necessary for the study of statistics.</p> <p>The following topics are covered :</p> <p>Random variables, dependence and independence.</p> <p>Expectations and conditional probability.</p> <p>Convergence of sequences of random variables.</p> <p>Martingales.</p>
Aims :	<p>The course aims to give a basic knowledge of probability theory. It is an introduction to the main tools that are necessary to tackle the big problems of statistical analysis and stochastic processes. After this course, the student will be able to calculate conditional and non-conditional expectations and to study the convergence of sequences of random variables (including asymptotic law).</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>
Other infos :	Prerequisite : MAT 1322: Measure theory
Cycle and year of study :	<ul style="list-style-type: none"> <li>&gt; <a href="#">Bachelor in Information and Communication</a></li> <li>&gt; <a href="#">Bachelor in Philosophy</a></li> <li>&gt; <a href="#">Bachelor in Pharmacy</a></li> <li>&gt; <a href="#">Bachelor in Computer Science</a></li> <li>&gt; <a href="#">Bachelor in Economics and Management</a></li> <li>&gt; <a href="#">Bachelor in Motor skills : General</a></li> <li>&gt; <a href="#">Bachelor in Human and Social Sciences</a></li> <li>&gt; <a href="#">Bachelor in Sociology and Anthropology</a></li> <li>&gt; <a href="#">Bachelor in Political Sciences: General</a></li> <li>&gt; <a href="#">Bachelor in Mathematics</a></li> <li>&gt; <a href="#">Bachelor in Biomedicine</a></li> <li>&gt; <a href="#">Bachelor in Engineering</a></li> <li>&gt; <a href="#">Bachelor in Religious Studies</a></li> <li>&gt; <a href="#">Preparatory year for Master in Statistics: General</a></li> <li>&gt; <a href="#">Master [120] in Mathematical Engineering</a></li> <li>&gt; <a href="#">Master [120] in Statistics: General</a></li> </ul>
Faculty or entity in charge:	MATH