







4.00 credits

30.0 h + 20.0 h

Q1

Teacher(s)	Dos Santos Santana Forte Vaz Pedro ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	<ul style="list-style-type: none"> <li>• Recall of elementary functions (rational functions, roots, exponential and logarithm, trigonometric functions).</li> <li>• Functions of one real variable (continuity and limits, derivatives and extrema, integrals and primitives).</li> <li>• Vector calculus (vectors in <math>\mathbb{R}^2</math> and <math>\mathbb{R}^3</math> and their components, norm, scalar product and link with orthogonal projection, vector product, parallelism and orthogonality).</li> <li>• Complex numbers.</li> <li>• Introduction to differential equations (first order equations with separable variables, first and second order linear equations with constant coefficients).</li> </ul>
Learning outcomes	
Evaluation methods	Written examination. The evaluation method may be adapted if the health situation changes.
Teaching methods	Lecture and practice sessions
Content	<ul style="list-style-type: none"> <li>• Vector calculus (vectors in <math>\mathbb{R}^2</math> and <math>\mathbb{R}^3</math> and their components, norm, scalar product and link with orthogonal projection, vector product, parallelism and orthogonality).</li> <li>• Recall of elementary functions (rational functions, roots, exponential and logarithm, trigonometric functions).</li> <li>• Functions of one real variable (continuity and limits, derivatives and extrema, integrals and primitives).</li> <li>• Introduction to differential equations (first order equations with separable variables, linear equations with constant coefficients of order one and two).</li> </ul>
Inline resources	Course moodle page
Bibliography	Briggs, Cochran & Gillett, <i>Calculus: Early Transcendentals</i> , Global Edition, 2/e, ©2016   Pearson   Paper; 1320 pp
Faculty or entity in charge	SC

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Chemistry	<a href="#">CHIM1BA</a>	4		
Bachelor in Veterinary Medicine	<a href="#">VETE1BA</a>	4		
Master [120] in Data Science : Statistic	<a href="#">DATS2M</a>	4		
Minor in Scientific Culture	<a href="#">MINCULTS</a>	4		
Bachelor in Biology	<a href="#">BIOL1BA</a>	4		
Bachelor in Geography : General	<a href="#">GEOG1BA</a>	4		
Minor in Statistics, Actuarial Sciences and Data Sciences	<a href="#">MINSTAT</a>	4		