

3.00	credits
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22.5 h + 22.5 h

Q1

Teacher(s)	Buysse Martin ;
Language :	French
Place of the course	Tournai
Main themes	<ul> <li>This course is designed to provide students with the mathematical methods used in other scientific subjects. It involves both understanding the necessary basic concepts for modelling in science and gaining a certain degree of skill in the application of calculus techniques.</li> <li>This course will also develop skills in the field of generalisation, logical thinking, rigour and lead to a good understanding of the real world, particularly through the perception of geometric objects in space.</li> <li>To do this, the following will be covered:</li> <li>A/ Pure geometry</li> <li>Thales's and Pythagorus's theorems</li> <li>Trigonometry</li> <li>Applications : polygons, polyhedrons, etc.</li> <li>B/ Analytical geometry</li> <li>Vectors in space (definition, operations, properties)</li> <li>Analytical and parametric equations</li> <li>Parallelism, perpendicularity, secancy, distances in space</li> </ul>
Learning outcomes	At the end of this learning unit, the student is able to :         Specific learning outcomes         By the end of the course, students will be able to         • break down a complex geometric figure in the plan and in space to take its measurement by making use of similarities and/or remarkable trigonometric functions.         • establish the surface and volume of simple geometric figures with the help of basic vector operations.         • determine the coordinates of points and the equations of rights and plans defined by their geometric position in figures inspired by buildings.         • identify the essential properties of geometric figures and use them with clarity and rigour when solving problems of a geometric nature.         Contribution to the learning outcome reference framework:         Express an architectural procedure         • Be familiar with, understand and use the codes for representing space, in two and three dimensions         • Identify the main elements of a hypothesis or a proposal to express and communicate them         • Express ideas clearly in oral, graphic and written form         Use the technical dimension         • Be familiar with and describe the main technical principles of building         Make use of other subjects         • Interpret the knowledge of other subjects
Faculty or entity in charge	LOCI

Programmes containing this learning unit (UE)					
Program title	Acronym	Credits	Prerequisite	Learning outcomes	
Bachelor in Architecture (Tournai)	ARCT1BA	3		٩	