

3.0 credits	15.0 h + 30.0 h	1q
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Teacher(s) :	Cherpion Marielle ;
Language :	Français
Place of the course	Bruxelles
Prerequisites :	Proficiency in fundamental arithmetic and algebra (fractions, laws of exponents, factorization formulas, etc...) Proficiency in first and second-degree equations and systems of equations. Rudiments of plane analytic geometry (vectors, coordinate plane, equation of a straight line, etc...) are desirable. Rudiments of basic trigonometry are desirable.
Main themes :	A/ Pure geometry - Thales' and Pythagoras' theorems - Trigonometry - Applications : Polygons, polyhedra, etc... B/ Analytic geometry - Vectors in space(definition, operations, properties) - Analytic and parametric equations of planes and straight lines - Parallel, orthogonal and intersecting planes and lines ; distances in space
Aims :	The goal of the course is to develop vision in space, geometric intuition and mathematical rigor by applying the fundamental concepts and tools of pure geometry and analytic geometry to the resolution of advanced problems. From representation to solution, the course stimulates the reasoning skills of the students, building on their perception of geometric reality to bring them to the translation into mathematical language. At the end of the course, the students should master the fundamental concepts and tools of geometry as well as their applications to complex situations, in order to be able to tackle technical courses such as materials resistance, stability, structures, construction and building construction physics. <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>
Cycle and year of study :	> Bachelor in Architecture (Bruxelles)
Faculty or entity in charge:	LOCI