

3.0 credits	15.0 h + 30.0 h	2q
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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. Proficiency in trigonometry and analitic geometry. Rudiments of calculus (functions, limits, derivatives, integrals) are desirable.
Main themes :	<ul style="list-style-type: none"> - Functions of one variable - Limits and continuity - Derivatives and optimization - Simple and computation of surfaces / moments - Ordinary differential equations
Aims :	Through learning the basic concepts and tools of differential and integral calculus, the course aims to equip the students with analytical skills allowing them to solve a great deal of problems in different domains such as geometry, physics, engineering, economy, biology, etc... Mastering the subtleties of the fundamentals and tools of calculus also contributes to develop the students' general understanding of reality, their mathematical intuition, precise reasoning and perception of geometric objects such as curves, surfaces and volumes in space. At the end of the course, the students should master the fundamental concepts and tools of calculus 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