

Due to the COVID-19 crisis, the information below is subject to change, in particular that concerning the teaching mode (presential, distance or in a comodal or hybrid format).

3 credits	30.0 h	Q1
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Teacher(s)	Altomonte Sergio ;Latteur Pierre ;Pelsser Yvette ;
Language :	English
Place of the course	Louvain-la-Neuve
Main themes	See part "Content" hereunder
Aims	<p>AA1.1, AA1.2, AA1.3, AA2.1, AA2.2, AA2.3,AA3.1.</p> <p>At the end of this course, the student must be able to:</p> <p>1</p> <ul style="list-style-type: none"> <li>• Design the main lines of the building's structure;</li> <li>• Design the main lines of the building's finishing.</li> </ul> <p>-----</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>
Evaluation methods	<p><b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b></p> <p>Variable from year to year: details provided during the course</p>
Teaching methods	<p><b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b></p> <p>Lectures</p>
Content	<p><b>IMPORTANT : DEPENDING ON THE PENDEMIC SITUATION, THE COURSE CONTENT, THE ACTIVITES AND THE EVALUATION COULD BE ADAPTED</b></p> <p>This construction technology course provides the basics of building design and techniques, particularly the aspects related to:</p> <ul style="list-style-type: none"> <li>• FIRE regulations (main aspects of the Royal Decree);</li> <li>• The general principles of air conditioning and heating, their impact on the design of the building's structure and architecture, the general rules of design and dimensioning;</li> <li>• The principles related to the problem of overheating and sunshine, as well as constructive techniques and devices to remedy it;</li> <li>• The finishing, facades and roofs (general principles, types, commercial products, usual materials);</li> <li>• The principles of thermal and acoustic insulation;</li> <li>• Other factors that may influence the design of a building such as: PMR access rules, subdivision rules, surface ratios required for sanitary and technical installations.</li> </ul> <p>To these considerations will be associated courses related to the techniques of design and construction of structures ( made out of reinforced concrete and steel) not integrated in other courses (expansion joints, bracing, prefabrication, etc.).</p>
Inline resources	Available on Moodle
Bibliography	<ul style="list-style-type: none"> <li>• Allen, Gerald, Dimensions : space, shape &amp; scale, New York (N.Y.) : Architectural record books, 1976</li> <li>• Engel, Heino , Tragsysteme = Structure Systems, Ostfildern-Ruit : Gerd Hatje, plusieurs éditions disponibles</li> <li>• Neufert, Ernst, Eléments des projets de construction : principes fondamentaux, normes et règles concernant la conception, l'exécution, la forme, (plusieurs éditions disponibles)</li> <li>• Cours LICAR 1821/2822 Edification soutenable I et II</li> </ul>
Faculty or entity in charge	GC

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Civil Engineering	GCE2M	3		