

The version you're consulting is not final. This course description may change. The final version will be published on 1st June.

3.00 credits	30.0 h	Q1
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Teacher(s)	Altomonte Sergio ;Lateur Pierre ;Pelsser Yvette ;
Language :	English > French-friendly
Place of the course	Louvain-la-Neuve
Prerequisites	LGCIV1032-Concrete structures + very good knowledge in structural materials, such as given in course LGCIV1031.
Main themes	See part "Content" hereunder
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b></p> <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>
Evaluation methods	Oral examination.
Teaching methods	Lectures and/or podcasts.
Content	<p><b>IMPORTANT NOTE: IN CASE OF FORCE MAJEURE (E.G., AN EPIDEMIC), THE CONTENT, ACTIVITIES, TEACHING METHODS AND EVALUATION METHODS MAY 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	See MOODLE page of the course.
Bibliography	<ul style="list-style-type: none"> <li>• Voir page MOODLE du cours.</li> <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

**Programmes containing this learning unit (UE)**

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Civil Engineering	GCE2M	3		