

3.00 credits

30.0 h

Q1

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>At the end of this learning unit, the student is able to :</p> <ul style="list-style-type: none"> • AA1.1, AA1.2, AA1.3 • AA2.1, AA2.2, AA2.3 • AA3.1 <p>At the end of this course, the student must be able to:</p> <ul style="list-style-type: none"> • design the main lines of the building's structure; • design the main lines of the building's finishing.
Evaluation methods	Oral examination.
Teaching methods	Lectures and/or podcasts.
Content	<p>IMPORTANT NOTE: IN CASE OF FORCE MAJEURE (E.G., AN EPIDEMIC), THE CONTENT, ACTIVITIES, TEACHING METHODS AND EVALUATION METHODS MAY BE ADAPTED</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"> • FIRE regulations (main aspects of the Royal Decree); • 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; • The principles related to the problem of overheating and sunshine, as well as constructive techniques and devices to remedy it; • The finishing, facades and roofs (general principles, types, commercial products, usual materials); • The principles of thermal and acoustic insulation; • 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. <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"> • Voir page MOODLE du cours. • Allen, Gerald, Dimensions : space, shape & scale, New York (N.Y.) : Architectural record books, 1976 • Engel, Heino , Tragsysteme = Structure Systems, Ostfildern-Ruit : Gerd Hatje, plusieurs éditions disponibles • Neufert, Ernst, Eléments des projets de construction : principes fondamentaux, normes et règles concernant la conception, l'exécution, la forme, (plusieurs éditions disponibles) • Cours LICAR 1821/2822 Edification soutenable I et II
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		