UCLouvain

Itarc1164

Construction and materials : generalities

2024

4.00 credits

30.0 h + 15.0 h

Q2

Teacher(s)	De Groote Geert ;				
Language :	French				
Place of the course	Tournai				
Main themes	In Brussels, the teaching is cumulative and progressive, from the shell to the finishing details, while in Tournai construction and materials are taught in a global way; in this way, students can form logical groupings. This teaching unit describes in parallel and in a general way the main materials, elements and implementation systems used in the construction field. It introduces generally accepted rules of building, linked to the nature of the materials used.				
Learning outcomes	At the end of this learning unit, the student is able to: The objective of this teaching unit is to generate the necessary skills to bring architectural objectives into line with how to translate them into material terms. This teaching unit focuses particularly on one dimension of the profile of a Bachelor level graduate in Architecture: developing a technical dimension. Specific learning outcomes: By the end of the course, students will be able to • have an active knowledge of technical terminology and apply the graphic conventions involved in construction techniques. • be familiar with and refer to the physical and construction properties of materials and elements of construction. • understand and refer to a range of implementation systems. • understand the physical properties of materials so as to get to grips with the construction systems where they are used. Contribution to the learning outcomes reference framework: Use the technical dimension • Be familiar with and describe the main technical principles of building • Observe and assess the main construction principles in a producing a work of architecture Express an architectural procedure • Express ideas clearly in oral, graphic and written form				
Evaluation methods	Examination session in June Evaluation of thematic exercises throughout the year: 10% of the points Written exam, consisting of two parts: - drawing of 2 details: 50% of the points - a series of theoretical questions: 40% of the points Examination session in August Written exam, consisting of two parts: - drawing of 2 details: 60% of the points - a series of theoretical questions: 40% of the points				
Teaching methods	Theoretical presentations and case studies Thematic exercises				
Content	Starting from the general principles and architectural intentions, the following topics are addressed: - Foundations - Massive masonry and concrete constructions - The cavity wall - Concrete floors - Flat roofs - Green roofs - Insulation				

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Bibliography	Andrea Deplazes, Construire l'architecture, Birkhäuser, 2013, Bâle
Faculty or entity in charge	LOCI

Programmes containing this learning unit (UE)							
Program title	Acronym	Credits	Prerequisite	Learning outcomes			
Bachelor in Architecture (Tournai)	ARCT1BA	4		Q.			