UCLouvain

Itarc1362

2022

## Construction and materials : development

4.00 credits 30.0 h + 15.0 h Q1

Teacher(s)	Wittevrongel Bernard ;					
Language :	French					
Place of the course	Tournai					
Prerequisites	The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.					
Main themes	In Brussels, the teaching is cumulative and progressive, from the shell to the finishing details, while in Tourna construction and materials are taught in a global way; in this way, students can form logical groupings.  This teaching unit complements and takes further the description of materials, elements and methods o construction in previous teaching units and develops specific questions linked to the practice of construction ir complex situations and in real conditions. The unit deals with construction in an architectural dimension and aims to explore particular methods of implementation.					
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					
	put forward appropriate building solutions regarding construction in complex situations.					
	identify the methods of organisation of work on site.					
	Contribution to the learning outcomes reference framework.					
	Use the technical dimension					
	<ul> <li>Be familiar with and describe the main technical principles of building</li> <li>Observe and assess the main construction principles of a building</li> <li>Be able to apply the various basic technical principles in a producing a work of architecture</li> </ul>					
	Express an architectural procedure					
	• Express ideas clearly in oral, graphic and written form					
Fuglication mathematic	• Written, drawing exam					
Evaluation methods	Continuous evaluation					
Teaching methods	• Lectures					
Ç	Case-studies     Exercices					
Content	Some themes of the previous course in Bac 1 are taken over, and starting from the general principles, the sphere of constructive possibilities is widen, and more especially on the following subjects:					
	• timber frame constructions					
	• steel frame constructions					
	• metal roofs					
	• stairs and elevators					
	• millwork • floors					
Inline resources	The slideshows and all of the documents are available on moodle.					
Dieliana	Andrea Deplazes, Construire l'architecture, Birkhäuser, 2013, Bâle					
Bibliography	Alexander Reichel, Kerstin Schultz, Support I Materialise, Birkhäuser, 2013, Bâle					
	Bert Bielefeld, Basics building construction, Birkhäuser, 2015, Bâle					

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Faculty or entity in	LOCI
charge	

Programmes containing this learning unit (UE)						
Program title	Acronym	Credits	Prerequisite	Learning outcomes		
Bachelor in Architecture (Tournai)	ARCT1BA	4	LTARC1262	0		