




**This biannual learning unit is not being organized in 2023-2024 !**

Teacher(s)	De Groote Geert ;Faux Pascaline ;Gallez Olivier ;
Language :	French > English-friendly
Place of the course	Tournai
Main themes	<ul style="list-style-type: none"> <li>• Process of structure design: methods and tools</li> <li>• Exploration of the creative and innovative dimensions of structures</li> <li>• Integration of data on structure, construction and facilities in an architectural project</li> </ul>
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b></p> <p><b>Specific learning outcomes:</b></p> <p>Students will explore and test out the principles which link architecture to its formal, material and temporal dimension.</p> <p>Students will be able to</p> <ul style="list-style-type: none"> <li>• approach certain specific methods of design.</li> <li>• manipulate certain tools of structural design.</li> <li>• develop a critical approach to available tools with a view to integrating them in architectural design.</li> <li>• integrate methods and tools linked to structure in the process of project design.</li> <li>• actively promote creativity in construction for the benefit of the project.</li> </ul> <p><b>Contribution to the learning outcomes reference network:</b></p> <p><b>Build knowledge of architecture</b></p> <ul style="list-style-type: none"> <li>• Be familiar with and analyse the discipline's basic references</li> <li>• Develop knowledge and become an active participant in the learning process</li> </ul> <p><b>Make use of other subjects</b></p> <p>1</p> <ul style="list-style-type: none"> <li>• Seek out other approaches, exchanges of views and ways of enhancing thinking about architecture</li> </ul> <p><b>Use the technical dimension</b></p> <ul style="list-style-type: none"> <li>• Be able to apply the various basic technical principles in producing a work of architecture</li> <li>• Acquire an instinctive understanding of structures to use in producing a creative and/or innovative work of architecture</li> </ul> <p><b>Express an architectural procedure</b></p> <ul style="list-style-type: none"> <li>• Identify the founding elements of a hypothesis or a proposal to express and communicate them</li> </ul> <p><b>Adopt a professional attitude</b></p> <ul style="list-style-type: none"> <li>• Listen to and identify the different needs and points of view of the different stakeholders to be able to bring these together in respect of the desired objectives</li> </ul> <p><b>Make committed choices</b></p> <ul style="list-style-type: none"> <li>• Activate and develop an ethical sense through approaches to architecture</li> </ul>
Evaluation methods	<ul style="list-style-type: none"> <li>• Architectural design : jury at the end of the 10 weeks (group work)</li> <li>• Individual notebook to be done in january</li> </ul>
Teaching methods	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Architecture workshop</li> <li>• Personal research</li> </ul>
Content	<p>It is about design experimentation combined to a research of coherence between technique (structure and construction) and architecture resting on a construction material.</p> <p><i>Key-words: architecture, material, (concept of) structure, (detail of) construction, synergy.</i></p>

	<p>The aim is:</p> <ul style="list-style-type: none"> <li>• to elaborate and concretise an architectural idea and to bring an architectural idea to a constructible state in order to define the architectural project.</li> <li>• to study the material in all of its dimensions and its link to its physical, economical and technical environment</li> <li>• to take conscience of the structural choices and the establishment of the construction modes in order to improve the creative development of the architectural design.</li> </ul>
Inline resources	slideshows and documentations are downloadable on moodle
Bibliography	<ul style="list-style-type: none"> <li>• <b>Construire en bois</b> T. Herzog, J. Nattere, R. Schweitzer, M. Volz, W. Winter, Birkhäuser, Birkhäuser, PPUR, 2012</li> <li>• <b>Construire l'architecture</b> Andrea Deplazes, Birkhäuser,</li> <li>• <b>Faire Tenir : Structure et Architecture</b> Marc Leyral, 2021</li> <li>• <b>Form and Forces: Designing Efficient, Expressive Structures</b> Edward Allen &amp; Waclaw Zalewski, 2009</li> <li>• <b>Franchir le vide. A pied et à vélo</b> Ney &amp; Partners. Archibooks</li> <li>• <b>Informal</b> Cecil Balmond, Prestel, 2002</li> <li>• <b>Mémoire d'un ingénieur</b> Peter Rice, Le Moniteur, Paris, 1998.</li> <li>• <b>Metamorphism, Material change in architecture</b> Akos Moravansky, Birkhäuser, Basel, 2018</li> <li>• <b>Process and pattern in architecture and design</b> Luisa Collina, Silvana, 2016, Milano</li> <li>• <b>Question d'architecture Structure</b> Bernard Wittevrongel (dir), Projets 2016-2018, UCL LOCI 2019.</li> <li>• <b>Seven bridges by Jürg Conzett</b> Jürg Conzett, Zürich: Verlag Scheidegger &amp; Spiess, 2013.</li> <li>• <b>Structure as Space</b> Mohsen Mostafavi, AA editions, 2006, London.</li> <li>• <b>Studies in Tectonic Culture</b> Kenneth Frampton, MIT Press, Cambridge, London, 1996.</li> <li>• <b>Wood and Wood Joints</b> Klaus Zwerger, Birkhäuser, Basel, 2000.</li> </ul>
Faculty or entity in charge	LOCI

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Architecture (Tournai)	ARCT2M	8		
Master [120] in Architecture (Bruxelles)	ARCB2M	8		