


This biannual learning is being organized in 2022-2023

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"> • Process of structure design: methods and tools • Exploration of the creative and innovative dimensions of structures • Integration of data on structure, construction and facilities in an architectural project
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <p>Specific learning outcomes: Students will explore and test out the principles which link architecture to its formal, material and temporal dimension. Students will be able to</p> <ul style="list-style-type: none"> • approach certain specific methods of design. • manipulate certain tools of structural design. • develop a critical approach to available tools with a view to integrating them in architectural design. • integrate methods and tools linked to structure in the process of project design. • actively promote creativity in construction for the benefit of the project. <p>Contribution to the learning outcomes reference network:</p> <p>Build knowledge of architecture</p> <ul style="list-style-type: none"> • Be familiar with and analyse the discipline's basic references • Develop knowledge and become an active participant in the learning process <p>Make use of other subjects</p> <p>1</p> <ul style="list-style-type: none"> • Seek out other approaches, exchanges of views and ways of enhancing thinking about architecture <p>Use the technical dimension</p> <ul style="list-style-type: none"> • Be able to apply the various basic technical principles in producing a work of architecture • Acquire an instinctive understanding of structures to use in producing a creative and/or innovative work of architecture <p>Express an architectural procedure</p> <ul style="list-style-type: none"> • Identify the founding elements of a hypothesis or a proposal to express and communicate them <p>Adopt a professional attitude</p> <ul style="list-style-type: none"> • 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 <p>Make committed choices</p> <ul style="list-style-type: none"> • Activate and develop an ethical sense through approaches to architecture
Evaluation methods	<ul style="list-style-type: none"> • Architectural design : jury at the end of the 10 weeks (group work) • Individual notebook to be done in january
Teaching methods	<ul style="list-style-type: none"> • Lectures • Architecture workshop • Personal research
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"> • to elaborate and concretise an architectural idea and to bring an architectural idea to a constructible state in order to define the architectural project. • to study the material in all of its dimensions and its link to its physical, economical and technical environment • to take conscience of the structural choices and the establishment of the construction modes in ordre to improve the creative development of the architectural design.
Inline resources	slideshows and documentations are downloadable on moodle
Bibliography	<ul style="list-style-type: none"> • Construire en bois T. Herzog, J. Nattere, R. Schweitzer, M. Volz, W. Winter, Birkhäuser, Birkhäuser, PPUR, 2012 • Construire l'architecture Andrea Deplazes, Birkhauser, • Faire Tenir : Structure et Architecture Marc Leyral, 2021 • Form and Forces: Designing Efficient, Expressive Structures Edward Allen & Waclaw Zalewsk, 2009 • Franchir le vide. A pied et à vélo Ney & Partners. Archibooks • Informal Cecil Balmond, Prestel, 2002 • Mémoire d'un ingénieur Peter Rice, Le Moniteur, Paris, 1998. • Metamorphism, Material change in architecture Akos Moravansky, Birkhäuser, Basel, 2018 • Process and pattern in architecture and design Luisa Collina, Silvana, 2016, Milano • Question d'architecture Structure Bernard Wittevrongel (dir), Projets 2016-2018, UCL LOCI 2019. • Seven bridges by Jürg Conzett Jürg Conzett, Zürich: Verlag Scheidegger & Spiess, 2013. • Structure as Space Mohsen Mostafavi, AA editions, 2006, London. • Studies in Tectonic Culture Kenneth Frampton, MIT Press, Cambridge, London, 1996. • Wood and Wood Joints Klaus Zwerger, Birkhäuser, Basel, 2000.
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		