UCLouvain

lbarc2061

2020

Due to the COVID-19 crisis, the information below is subject to change, in particular that concerning the teaching mode (presential, distance or in a comodal or hybrid format).

8 credits	90.0 h	Q1

This biannual learning unit is not being organized in 2020-2021 !

Language :	French
Place of the course	Bruxelles Saint-Gilles
Main themes	*The Issues in Architecture: Materiality and Eco-Design* course is designed to focus students' attention on the relationship between the overall construction and structure aspects of the envelopes and their details and the formal intentions of the architect. The refinement of construction details is an important part of the architect's role. And the current growth in demand for better environmental performance in construction increases the complexity of these details and influences their design. In addition, issues of sustainability of the life cycle of materials, buildings and the different human factors which are associated with this encourage rethinking of construction methods. The course covers the following four dimensions • Environment & sustainable working • Quantitative analysis & objectivisation of data • Qualitative options (design) & constructive interaction • Human factors & comfort (Module A) or Human factors & construction (Module B). *The Issues in Architecture: Materiality and Eco-Design course* is made up of two modules (biennial). **MODULE B**(biennial): **materiality & prototype** *Carrying out a piece of construction research on the basis of choosing a 'generic' material'* This module is designed to test out in depth, through the project and the production of a prototype, the different aspects and requirements linked to the materiality of a constructed envelope. The starting point is the choice of a 'generic' material to form the envelope of a building and its own structure (principle of independence vis-à-vis the load-bearing structure of the existing building). The knowledge students will acquire or develop include the following topic areas • Materiality & Construction • Structure & Phasing of construction • Eco-construction & Recycled materials. Please note: MODULE A explores the question of *building design and performance*. *Carrying out an applied piece of construction research on the envelope of a building, with a strong association between formal and technical quality.*
Aims	This course form part of the group of teaching units on the construction conditions which make up an architectural project in a pre-existing or given construction and environmental context. **Specific learning outcomes:** The knowledge students will acquire from Module B : Materiality & Prototype include the following skills: • **materiality & construction** By the end of this course, students will be able to put together a technical reference folder on the materials used (characteristics / sustainability and ageing / conditions of use /). • **structure & phasing of construction** By the end of this course, students will be able to imagine a structural hypothesis which enables the systematic use of a 'generic' material and in a material-saving option. • **eco-construction & recycled materials** By the end of this course, students will be able to explore, in a construction process, sustainable implementation (natural materials / waste materials / salvage materials / use & prefabrication /). **Contribution to the learning outcomes reference network:** **Design a project**

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	• *Express and prioritise the aims of the projects so as to be able to make choices* **Build knowledge of architecture** • *Be familiar with and analyse the discipline's basic references* **Make use of other subjects** • *Seek out other approaches, exchanges of views and ways of enhancing thinking about architecture* **Adopt a professional attitude** • *Test and observe the framework of professional practice and to architectural knowledge through independent involvement* **Use the technical dimension** • *Be able to apply the various basic technical principles in producing a work of architecture* - - - - *The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".*
Bibliography	Jean-Marc Hygen - La poubelle de l'architecte / Acte Sud - Collection « L'impensé » 2008 Julien Choppin & Nicolas Delon - Matière grise / Pavillon de l'arsenal 2014
Faculty or entity in charge	LOCI

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