UCLouvain

larcb2076

2026

Re-Design: Materiality and Circularity

3.00 credits	30.0 h	Q1

This biannual learning unit is not being organized in 2026-2027 !

Language :	French
Place of the course	Bruxelles Saint-Gilles
Main themes	This course addresses the environmental impact of design choices and renovation interventions on existing buildings, emphasizing a resource-saving approach. It explores and discusses key concepts such as life cycle analysis, reuse, reversibility, circularity, relocation, and the valorization of waste as a resource, examining their influence on the architectural design process.
Learning outcomes	**At the end of this learning unit, the student is able to :** • Understand the environmental challenges specific to the construction sector, particularly regarding resource availability and waste recovery, • Apply life-cycle principles and concepts at various building scales to promote circular design, • Explore and utilize environmental assessment tools (e.g., TOTEM), • Analyze and compare different intervention scenarios for a case study using the tools introduced in the course, • Develop and articulate a clear, concise argument based on comparative analysis findings. **General Learning Outcomes** In line with the program's learning outcomes (LOs), this course contributes to the development and acquisition of the following LOs: • LO1.1 Prioritize the parameters and issues of a given situation. • LO1.6 Integrate Sustainable Development requirements into the design process, at multiple scales. • LO2.6 Proficiently depict environmental, social, and economic phenomena. • LO3.4 Understand and assess the environmental, social, and economic consequences of construction and technical choices. • LO4.4 Understand and assess the environmental, social, and economic consequences of architectural choices. • LO5.1 Act in full awareneness of one's responsibilities. • LO5.4 Advocate for and act in favor of exemplary architecture in light of Sustainable Development requirements. • LO6.3 Present the results of research within and about architecture while adhering to the conventions of scientific communication. • LO6.4 Incorporate the requirements of sustainable development into the research process: question, body of work, and scientific monitoring.
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	3		🔍
Master [120] in Architecture (Bruxelles)	ARCB2M	3		🔍