


6.00 credits

45.0 h

Q1

Teacher(s)	Altomonte Sergio ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	<p>This learning unit explores how building strategies, and those related to physical and psychophysical environments, can contribute to the act of "making architecture" and support the sustainability of buildings (in their cultural, social, and environmental aspects), while promoting occupant comfort, health, and well-being, and encouraging the rational use of resources and energy.</p> <p>Framed within a commitment to the continuous improvement of built environments - and the processes of their design, construction, operation, renovation, and deconstruction - the learning unit aims to the acquisition and mastering of knowledge and skills in:</p> <ul style="list-style-type: none"> • The constructional and operational strategies of buildings, integrated with their technical services; • The evaluation and analysis of indoor environmental qualities; • The assessment of design choices with regards to indoor and outdoor environments, resource and energy use, occupant comfort, health and well-being, and the environment in a wider sense; • The development and articulation of new knowledge and original research avenues that foster more sustainable architectural designs.
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <ul style="list-style-type: none"> • Critically and competently discuss key concepts of the discipline, such as the sustainability of built environments and the comfort, health, and well-being of occupants; • Contextualize the importance and necessity of approaching architecture through the lens of sustainability, comfort, health, well-being, and the rational use of resources and energy; • Document and model indoor physical environments and assess their potential impact on occupants and the environment in a wider sense; • Design architectural, spatial, and technological interventions that ensure occupant comfort, health, and well-being, all while simultaneously addressing current and future cultural, social, and environmental challenges; • Use tools for analyzing energy and material flows related to the design, construction, operation, renovation, and deconstruction of built spaces, and for evaluating occupant comfort, health, and well-being; • Identify knowledge gaps in the field and formulate, from this identification, rigorous proposals for research and development; • Develop a personal value system and set of convictions for "making architecture," integrating considerations of building sustainability, occupant comfort, health and well-being, and the rational use of resources and energy.
Faculty or entity in charge	LOCI

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Civil Engineering	GCE2M	6		
Master [120] in Architecture and Engineering	ARCH2M	6		