

5.00 credits

50.0 h

Q1

Teacher(s)	Sottiaux Luc ;
Language :	French
Place of the course	Bruxelles Saint-Gilles
Main themes	<p>This course aims to develop both theoretical and practical skills in the design of construction, infrastructure (buried structures), and complex structures. The course focuses on typologies of complex structures and emphasizes the development of comprehensive and coherent design strategies. These strategies consider spatial implications, the integration of technical systems, durability, and adaptability.</p> <p>Particular attention is given to the use of professional communication tools and the critical evaluation of technical and scientific documentation.</p>
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <ul style="list-style-type: none"> • Assess the behavior and properties of foundation soils, • Evaluate the specific challenges posed by key geotechnical elements to make coherent choices for buried structures, and define their design principles and execution conditions, • Analyze the spatial impact of large, complex structures, • Evaluate the technical and constructive principles required for large, complex structures and assess the associated execution methods and conditions, • Assess the sustainability of design and material choices, • Use specialized technical, scientific, and normative documents related to the topics covered, • Communicate effectively with stability engineers and construction professionals. <p><u>General Learning Outcomes</u></p> <p>In line with the program's learning outcomes (LOs), this course contributes to the development and acquisition of the following LOs:</p> <ul style="list-style-type: none"> • LO1.4 Compose the material elements of a construction or development with artistry. • LO1.6 Integrate Sustainable Development requirements into the design process, at multiple scales. • LO3.2 Understand and apply the construction and technical processes related to architecture. • LO3.3 Understand and integrate scientific and technical knowledge to realize an architectural project. • 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 awareness of one's responsibilities. • LO5.2 Communicate attentively, inclusively, and effectively with the various stakeholders of the architectural project.
Faculty or entity in charge	LOCI

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Architecture (Bruxelles)	ARCB2M	5		