


**This biannual learning is being organized in 2021-2022**

Teacher(s)	Mairy Cécile ;
Language :	French
Place of the course	Louvain-la-Neuve
Learning outcomes	
Evaluation methods	Assessment will be by written examen.
Teaching methods	Teaching is mainly through lectures. However, this is supplemented by visits to remarkable buildings and/or sites (in Belgium). These visits are intended to illustrate the concepts presented in the lectures and to specify the similarities and/or differences between this type of project and more traditional architectural design briefs.
Content	<p>The purpose of the LICAR2831 course on restoration and renovation is to introduce the students the theoretical notions of immovable cultural heritage (history of conservation, restoration theories, charters, etc) and more specifically on certain aspects (challenges of heritage projects, characteristics of materials, diagnosis of deterioration, compatibility / durability / etc of differents approaches, thoughts on structural composition, etc), and to initiate them in the preliminary studies necessary for a proper understanding of the structures concerned and to make them aware of the problems associated with conserving, restoring and improving the property while complying with certain current requirements / restrictions.</p> <p><b>CURRICULUM</b></p> <p><b>Class 1 Notion of heritage</b>                  Introduction (course structure, general context)                  Philosophical bases of conservation and restoration                  Restoration theories</p> <p><b>Class 2 Restoration project process</b>                  Overview of the methodology                  Initial studies (historical study, analysis of the existing situation)</p> <p><b>Class 3 Restoration project process</b>                  Initial studies (continued)</p> <p><b>Class 4 Restoration project process</b>                  Initial studies (continued)                  Building improvement                  Scheduling                  Philosophy of intervention (orientation/direction/motivation)                  Options of intervention                  Illustration/actual case histories</p> <p><b>Class 5 Building/site visit</b>                  Application of the approach presented in classes 1-2-3-4</p> <p><b>Class 6 Heritage and current issues</b>                  Identification and impact of current issues                  Ovrview of standards/regulations/recommendations/requirements/etc relating to space, physical behaviour, energy, safety (fire, personal injury, etc), materials, know-how, budget, contract times, etc                  Proposed solutions</p> <p><b>Class 7 Building/site visit</b>                  Application of the approach presented in classes 1-2-3-4-6</p> <p><b>Class 8 Heritage and current issues</b>                  Heritage and energy                  Presentation of heritage buildings with improved energy performance                  Proposed solutions</p> <p><b>Class 9 Heritage and current issues</b>                  Heritage and modernism                  Presentation of problems encountered on Modernist or associated style buildings                  Proposed solutions</p> <p><b>Class 10 Buil dint/site visit</b></p>

	<p>Application of the approach presented in classes 1-2-3-4-6-8-9</p> <p><b>Class 11 Related frameworks</b></p> <p>Overview of legislation in Belgium, working methods, procedures, etc</p> <p>Presentation of national and international restoration/renovation project "references"</p> <p><b>Class 12 Exercise</b></p> <p>Application/implementation in groups</p>
Other infos	<p>The classes are given on the basis of PowerPoint documents indicating key elements, illustrations, issues for consideration, specific extracts, etc. that are sent to the students prior the course concerned.</p>
Faculty or entity in charge	<p>LOCI</p>

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Civil Engineering	GCE2M	3		
Master [120] in Architecture and Engineering	ARCH2M	3		