

3.0 credits	60.0 h	1+2q
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Teacher(s) :	Roger France Jean-Francois ; Van Moeseke Geoffrey ;
Language :	Français
Place of the course	Bruxelles Saint-Gilles
Aims :	<p>The need for technical installations buildings is established. They allow fluids and energy to flow through the building in order to satisfy requirements related to physical conditions, security, activities and hygiene.</p> <p>The rising number of technical installations and their increasing complexity is a fact. Their integration in the building is challenging for the architect and asks for a specific concern.</p> <p>All buildings, whatever its size or program, include a network dedicated to fluids and energy. This network is constituted of cavities gathering elements of various technical installations. Those cavities may inspire architectural organisations and expressions straightening the architectural design.</p> <p>Moreover, today's focus on energy efficiency of buildings requires a specific attention for HVAC and lighting techniques on behalf of architects.</p> <p>Mastering the integration of technical installations in buildings implies that the architect, alone or with the help of engineers, is able to define :</p> <ul style="list-style-type: none"> <li>-- The installations fulfilling specific requirements</li> <li>-- Specific elements of those installations and cavities needed in the building to insert those elements</li> <li>-- The logical organisation of the fluids and energy networks in a building</li> </ul> <p><i>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".</i></p>
Evaluation methods :	<p>1st semester :</p> <p>Written exam (theory and practice).</p> <p>During the semester, an exercise of description of the technical installations of an existing building is asked for.</p> <p>2nd semester :</p> <p>Written exam (theory and practice).</p>
Content :	<p>This course develops technological, working and building principles and spacial organisation of various technical installations needed for :</p> <ul style="list-style-type: none"> <li>-- Heat production</li> <li>-- Internal air quality</li> <li>-- Cooling and humidity control</li> <li>-- Cold and hot water conveyance</li> <li>-- Sewage and rain disposal</li> <li>-- Natural and artificial lighting</li> <li>-- Circulation and accessibility of buildings</li> <li>-- Electricity distribution</li> <li>-- Fire protection</li> </ul> <p>For all those techniques, the following elements are discussed :</p> <ul style="list-style-type: none"> <li>-- Expectations (comfort levels, ...)</li> <li>-- Legal requirements</li> <li>-- Technical description</li> <li>-- Installation and regulation schemes</li> </ul> <p>One visit is organised allowing students to examine technical installations of a building in use.</p>
Faculty or entity in charge:	LOCI