

5.0 credits	30.0 h + 30.0 h	1q
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Teacher(s) :	de Meester de Betzenbroeck Bruno ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	<ul style="list-style-type: none"> <li>- Introduction to welding.</li> <li>- The welding processes.</li> <li>- Weldability and welding procedures</li> </ul>
Aims :	<ul style="list-style-type: none"> <li>- To give a good understanding of the physics principles underlying the joining operations by welding.</li> <li>- To know the characteristics of the main welding processes.</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>
Content :	<ul style="list-style-type: none"> <li>- Definition of welding, welding joint and weldability.</li> <li>- Influence of the heat input.</li> <li>- The welding processes: gas welding, arc welding, resistance welding,</li> <li>- The evolution of the properties in the heat affected zone of the welded joint.</li> <li>- Causes and solutions to avoid the main types of cracking.</li> </ul>
Other infos :	<ul style="list-style-type: none"> <li>- Prerequisite : none.</li> <li>- Recommended lectures :                      P. T. Houldcroft, Les procédés de soudage, Dunod, 1971.                      H. Granjon, Bases métallurgiques du soudage, Eyrolles 1989.</li> <li>- The practical exercises include :                      Practice of the main welding processes.                      Visits in the industry.</li> </ul>
Cycle and year of study :	<ul style="list-style-type: none"> <li>&gt; <a href="#">Master [120] in Chemical and Materials Engineering</a></li> <li>&gt; <a href="#">Master [120] in Mechanical Engineering</a></li> <li>&gt; <a href="#">Master [120] in Electro-mechanical Engineering</a></li> </ul>
Faculty or entity in charge:	MECA