

4.0 credits	22.5 h + 15.0 h	1q
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Teacher(s) :	Gérard Jean-Marc ; Govaerts Jan ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	<ol style="list-style-type: none"> <li>1. From the principle of relativity to Newton's mechanics.</li> <li>2. Lorentz transformations and covariance of Maxwell's equations.</li> <li>3. From the principle of relativity to Einstein's mechanics of special relativity.</li> </ol>
Aims :	<p>Introduces to the basic physical concepts of special relativity as they lead to the theory of General Relativity, with, in particular, a discussion of relativistic kinematics and the Lorentz covariant formulation of Maxwell's equations of electromagnetic phenomena.</p> <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 :	Traditional teaching organisation, with oral presentations of the content material in a lecture theater, then followed by supervised tutorials. The detailed content of the course is structured along the above specifications. The course material is based on a syllabus, as well as further reading of course material to be specified during the semester.
Other infos :	<p>Prerequisites</p> <p>The mathematics and general physics courses of the first year of the Bachelor's degree in both the mathematical and the physical sciences.</p>
Cycle and year of study :	<ul style="list-style-type: none"> <li>&gt; <a href="#">Bachelor in Mathematics</a></li> <li>&gt; <a href="#">Master [120] in Physical Engineering</a></li> <li>&gt; <a href="#">Bachelor in Geography : General</a></li> <li>&gt; <a href="#">Bachelor in Economics and Management</a></li> <li>&gt; <a href="#">Bachelor in Engineering</a></li> <li>&gt; <a href="#">Bachelor in Physics</a></li> </ul>
Faculty or entity in charge:	PHYS