

8.0 credits	45.0 h + 45.0 h	1q
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Teacher(s) :	Govaerts Jan ; Lemaitre Vincent ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	<p>Mechanics :</p> <ul style="list-style-type: none"> . mathematics of mechanics ; . the laws of static equilibrium ; . Newton's principles ; dynamics and applications ; . conservation laws and applications ; . the two body problem, Kepler's laws, universal gravity ; . introduction to rigid body dynamics ; . introduction to fluid dynamics ; . introduction to special relativity.
Aims :	<p>Introduction to the basic principles of Newton's mechanics and special relativity ; their primary physical meaning and consequences ; and their actual implementation through the appropriate mathematical tools. To acquire experience in model building of realistic systems within the framework of physical phenomena of point mechanics and rigid bodies, in combination with actual experimental demonstrations and laboratory practicals. Provides the basic physics concepts necessary for the course PHY 1112, General Physics 2 (2Q), with which it constitutes a coherent curriculum, to be completed by the course PHY 1211, General Physics 3 (second year bachelor's degree).</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>
Cycle and year of study :	<p>> Bachelor in Mathematics</p> <p>> Bachelor in Physics</p>
Faculty or entity in charge:	PHYS