

Due to the COVID-19 crisis, the information below is subject to change, in particular that concerning the teaching mode (presential, distance or in a comodal or hybrid format).

5 credits	30.0 h + 30.0 h	Q2
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Teacher(s)	Haine Luc ;
Language :	French
Place of the course	Louvain-la-Neuve
Aims	<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>
Evaluation methods	Due to the COVID-19 crisis, the information in this section is particularly likely to change. Final exam involving testing the understanding of the theory and the ability to solve problems. Part of the final note will be based on a continuous evaluation during the quadrimester. This part of the evaluation will be taken into account at each session and it will not be possible to retake it.
Teaching methods	Due to the COVID-19 crisis, the information in this section is particularly likely to change. The aim of the class is to explain the material by illustrating it with lots of examples, and making connections with the courses of calculus and linear algebra taught during the first semester. Problem sessions consist in solving assigned exercises.
Content	The following topics will be discussed: <ol style="list-style-type: none"> 1. Linear and forced oscillators. 2. Chain of linear oscillators. 3. Newton's laws, conservation laws, galilean relativity and non inertial frames. 4. Systems with one degree of freedom, analytic solution, diagram of potential and phase plane, motion in a central field, Kepler problem.
Inline resources	The syllabus of the course in French "Notions de physique mathématique" can be obtained via "Diffusion Universitaire Ciaco", Louvain-la-Neuve. The syllabus also contains the exercises to be performed during the problem sessions.
Faculty or entity in charge	SC

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Bachelor in Mathematics	MATH1BA	5		