



4.00 credits

40.0 h + 10.0 h

Q2

Teacher(s)	Cortina Gil Eduardo ;Poncelet Adrien ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	<i>The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.</i>
Main themes	<ul style="list-style-type: none"> • Vibrations and waves • Electricity and magnetism • Optics • Modern physics
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <ul style="list-style-type: none"> • Predict the consequences of the laws of wave physics, electromagnetism, optics and modern physics. • Interpret data, diagrams and experiments using the concepts and laws of wave physics, electromagnetism, optics and modern physics. • Solve numerical problems involving wave physics, electromagnetism, optics and modern physics. • Explain the physical mechanisms related to hearing. • Explain the role of electrical phenomena in living things • Explain the physical concepts behind various medical imaging techniques. • Compare the advantages, disadvantages and limitations of different medical imaging techniques.
Bibliography	<ul style="list-style-type: none"> • Delbar, Th. (2001). <i>Physique générale : Vibrations et ondes</i>. Syllabus. Université catholique de Louvain. • Delbar, Th. (2002). <i>Physique générale : Électricité et magnétisme I</i>. Syllabus. Université catholique de Louvain. • Delbar, Th. (2002). <i>Physique générale : Électricité et magnétisme II</i>. Syllabus. Université catholique de Louvain. • Delbar, Th. (2007). <i>Physique générale : Optique</i>. Syllabus. Université catholique de Louvain. • Delbar, Th. (2007). <i>Physique générale : Physique moderne</i>. Syllabus. Université catholique de Louvain. • Delbar, Th. (2014). <i>Physique générale : Recueil d'exercices</i>. Syllabus. Université catholique de Louvain. • Kane, J. & Sternheim, M. (2018). <i>Physique</i> (4e éd.) (M. Delmelle, R. Evrard, J. Schmit & J.-P. Vigneron, Trad.). Malakoff : Dunod. • Seret, A. & Hoebeke, M. (2012). <i>Imagerie médicale : Bases physiques</i>. Liège : Presses Universitaires de Liège.
Faculty or entity in charge	SC

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Veterinary Medicine	VETE1BA	4		
Minor in Scientific Culture	MINCULTS	4		
Bachelor in Biology	BIOL1BA	4	LPHY1101	