



4.00 credits

40.0 h + 10.0 h

Q2

Teacher(s)	Poncelet Adrien ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	To follow this course, it is necessary to master the knowledge and skills developed in the course LPHY1101
Main themes	<ul style="list-style-type: none"> <li>• Vibrations and waves</li> <li>• Electricity and magnetism</li> <li>• Optics</li> <li>• Modern physics</li> </ul>
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b></p> <ul style="list-style-type: none"> <li>• Predict the consequences of the laws of wave physics, electromagnetism, optics and modern physics.</li> <li>• Interpret data, diagrams and experiments using the concepts and laws of wave physics, electromagnetism, optics and modern physics.</li> <li>• Solve numerical problems involving wave physics, electromagnetism, optics and modern physics.</li> <li>• Explain the role of electrical and wave phenomena in living beings</li> <li>• Explain the physical concepts behind various medical imaging techniques.</li> <li>• Compare the advantages, disadvantages and limitations of different medical imaging techniques.</li> </ul>
Bibliography	<ul style="list-style-type: none"> <li>• Delbar, Th. (2001). <i>Physique générale : Vibrations et ondes</i>. Syllabus. Université catholique de Louvain.</li> <li>• Delbar, Th. (2002). <i>Physique générale : Électricité et magnétisme I</i>. Syllabus. Université catholique de Louvain.</li> <li>• Delbar, Th. (2002). <i>Physique générale : Électricité et magnétisme II</i>. Syllabus. Université catholique de Louvain.</li> <li>• Delbar, Th. (2007). <i>Physique générale : Optique</i>. Syllabus. Université catholique de Louvain.</li> <li>• Delbar, Th. (2007). <i>Physique générale : Physique moderne</i>. Syllabus. Université catholique de Louvain.</li> <li>• Delbar, Th. (2014). <i>Physique générale : Recueil d'exercices</i>. Syllabus. Université catholique de Louvain.</li> <li>• Kane, J. &amp; Sternheim, M. (2018). <i>Physique (4e éd.)</i> (M. Delmelle, R. Evrard, J. Schmit &amp; J.-P. Vigneron, Trad.). Dunod.</li> <li>• Seret, A. &amp; Hoebeke, M. (2012). <i>Imagerie médicale : Bases physiques</i>. Presses Universitaires de Liège.</li> </ul>
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		