UCL Université catholique de Louvain

LPHY1112

2010-2011

General Physics 2

8.0 credits	45.0 h + 45.0 h	2q

Teacher(s) :	Lemaitre Vincent ; Govaerts Jan ; Favart Denis ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	Electricty and magnetism : . electrostatics ; . electrical conductors ; . magnetostatics. Physics of waves : . coupled, forced and damped oscillators ; . progressive waves, wave equations, Doppler effect ; . reflexion and transmission, standing waves, normal modes of vibration. Optics : . reflexion and refraction of light ; . mirrors and lenses, thin lenses in combination.
Aims :	Introduction to the basic principles of electricity and magnetism, to the physics of wave phenomena, and to the laws of optics ; of their primary physical meaning and consequences ; and of their actual implementation through both the appropriate mathematical tools, and the physics concepts acquired in the course PHY 1111, General Physics 1, which is the prerequisite to the present one. To develop experience in model building of realistic systems within the framework of physical phenomena of electricity and magnetism, of waves, and of optics, in combination with actual experimental demonstrations and laboratory practicals. Together with PHY 1111, this course provides a coherent curriculum, to be completed with the course PHY 1211, General Physics 3 (second year bachelor's degree). *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".*
Cycle and year of study :	> Bachelor in Mathematics > Bachelor in Physics
Faculty or entity in charge:	PHYS