UCL
Université catholique de Louvain

WMD1102
2010-2011

Physique expérimentale et introduction mathématique aux sciences expérimentales (1e partie)

8.0 credits	60.0 h + 21.0 h	1q

Teacher(s) :	Piraux Bernard (coordinator) ; Cortina Gil Eduardo ;
Language :	Français
Place of the course	Bruxelles Woluwe
Main themes :	Physics is considered as an experimental science based on the precise observation of reality, on the collection of pertinent data and on assumptions to be validated. The course starts with some revisions in mathematics and statistics, followed by a detailed study of mechanics, periodic phenomena and thermal physics.
Aims :	The objective of this course is twofold: education and training. On one hand, the aim is to instil in the students a right method of approaching scientific matters and on the other hand, to provide them with all the elements necessary to a good understanding of the technical world they will be confronted with in a next future. According to the course of study, priority is given to applications dealing with life sciences. *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".*
Content :	Content - Mathematics : Functions, Calculus, Vectors - Statistics : Theory of errors (Gauss) - Particles and solids mechanics - Fluid mechanics - Periodic phenomena : harmonic motion, resonance, interferences, reflection et diffraction - Thermal physics : kinetic theory of gases, calorimetry, thermodynamics
Other infos :	Methods - Lectures with audiovisual aid - Tutorials - Labs and problems in small groups - Softwares and iCampus forums Prerequisite - Elements of calculus Evaluation - During the term, continuous assessment - At the end of the term, written and oral examination + lab exam. Support - Written course and applications book - Illustrations et complements via iCampus - Tutorials via iCampus
Cycle and year of study :	> Bachelor in Biomedicine > Bachelor in Pharmacy
Faculty or entity in charge:	MED