LPHY2360

2015-2016

Physique atomique, nucléaire et des radiations

2.0 credits	22.5 h

Teacher(s) :	Piotrzkowski Krzysztof ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	Basic notions of matter structure, electronic structure of atom, atomic nucleus (static and energetic descriptions) and radioactivity : disintegration types, decay laws, radiation filiations. Radioactive sources (natural and artificial) - Radiation interactions with matter of charged ionising particles (electrons and heavy ions) and neutral particles (neutron, gamma) - Basic principles of radiation detection : semi-conductors, organic and inorganic scintillations and associated electronics .
Aims :	The objective of this course is to remind the students from other orientations than physics the basic principles and the fundamental notions of atomic, nuclear and radiation physics, which they will need to follow their specialization (Radioprotection, Nuclear Medicine, Radio-pharmacy, Nuclear Engineer,) . We develop, notably, this basic knowledge to suit the specific needs of the auditorium. *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".*
Other infos :	Prerequisites: scientifical education such as a degree in sciences (physics, chemistry, biology), engineer diploma (civil or agricultural), general medicine and pharmacy. Good knowledge of mathematics and general physics. Evaluation: written and oral examination. Support: copy of overhead transparencies used by the teacher.
Faculty or entity in charge:	PHYS

Programmes / formations proposant cette unité d'enseignement (UE)				
Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Master [120] in Biomedical Engineering	GBIO2M	2	-	
	RCPA9CE	4	-	
	RCPB9CE	4	-	
	RPHY9CE	4	-	
	RFAR9CE	4	-	
	RMDT9CE	4	-	