







2.00 credits

22.5 h

Q1

Teacher(s)	Cortina Gil Eduardo ;
Language :	French
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 .
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <p>1 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.</p>
Faculty or entity in charge	PHYS

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Certificat universitaire en radiopharmacie	RFAR9CE	4		
Advanced Master in Nuclear Medicine	MNUC2MC	2		
Certificat universitaire en radioprotection pour les médecins du travail	RMDT9CE	4		
Master [120] in Biomedical Engineering	GBIO2M	2		
Certificat universitaire de contrôle physique en radioprotection (Classe I)	RCPA9CE	4		
Certificat universitaire en physique d'hôpital	RPHY9CE	4		
Certificat universitaire de contrôle physique en radioprotection (Classe II)	RCPB9CE	4		