

Evaluation of the risks from radioactive releases into the environment in normal and accidental situations and nuclear emergency plans



3.00 credits

30.0 h + 15.0 h

Q2

Teacher(s)	Jamar François ;
Language :	French
Place of the course	Bruxelles Woluwe
Main themes	1st part. Potential releases from nuclear installations in normal and accidental situations: transfer of radioactivity through the ecosystems up to the food chain; measurement of radioactivity in the environment; description of an operational network. 2d part . Evaluation of the consequences of real or potential releases in the first phase of a nuclear accident: models (use and limitations), decision-aiding techniques, practical training; a posteriori evaluation of the consequences of nuclear releases: models, parameters, hypotheses and examples. 3d part. National nuclear emergency plans: principles of protection of the population in nuclear accidents: concepts, possible countermeasures and their justification, choice of intervention levels and intervention zones; maximum permitted levels of radioactive contamination of foodstuffs: regulations and recommendations (elaboration and use); agricultural countermeasures before, during and after a nuclear accident.
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <p>1 To acquire the theoretical and technical knowledge allowing a critical comprehension of the way nuclear risks are evaluated (risk of release and consequences) and protective measures (for the population and the food chain) are decided and implemented.</p>
Faculty or entity in charge	CRPR

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Certificat universitaire de contrôle physique en radioprotection (Classe I)	RCPA9CE	3		
Certificat universitaire en physique d'hôpital	RPHY9CE	3		
Certificat universitaire de contrôle physique en radioprotection (Classe II)	RCPB9CE	3		