UCL Université catholique de Louvain

WRPR2120

2013-2014

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

3.0 credits	30.0 h + 15.0 h

Teacher(s) :	Smeesters Patrick (coordinator) ; Debauche Antoine ; Hardeman Frank ;
Language :	Français
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.
Aims :	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. *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 :	> Certificat universitaire de contrôle physique en radioprotection (Classe I) > Certificat universitaire de contrôle physique en radioprotection (Classe II) > Certificat universitaire en physique d'hôpital
Faculty or entity in charge:	CRPR