

3.00 crédits

Q2

Langue d'enseignement	Anglais
Lieu du cours	Autre site
Préalables	The following BNEN course is a prerequisite <ul style="list-style-type: none"> <li>• Nuclear Reactor Theory</li> </ul>
Thèmes abordés	<p><b>Theoretical part</b></p> <ul style="list-style-type: none"> <li>• Reactor codes and adjoint theory ' 4h</li> <li>• Reactor Physics for fast reactors ' 4h</li> <li>• GEN IV reactor technologies ' 6h</li> <li>• ADS reactor physics and technology ' 6h</li> <li>• GEN IV and the closed fuel cycle ' 4h</li> </ul> <p><b>Laboratory session and exercises</b></p> <ul style="list-style-type: none"> <li>• Lab session ' GUINEVERE ' 4h</li> <li>• Exercise session on reactor codes ' 4h</li> </ul>
Acquis d'apprentissage	<p><b>A la fin de cette unité d'enseignement, l'étudiant est capable de :</b></p> <ol style="list-style-type: none"> <li>1             <ul style="list-style-type: none"> <li>• Describe the 6 GEN IV designs accepted by the GIF</li> <li>• Compare GEN IV with GEN II and GEN III reactors.</li> <li>• Give an overview of international networks and research infrastructures for GEN IV systems</li> </ul> </li> </ol>
Modes d'évaluation des acquis des étudiants	Written examination on theory and exercises (open book)
Ressources en ligne	<a href="https://www.sckcen.be/fbnen">https://www.sckcen.be/fbnen</a>
Bibliographie	The PowerPoint presentations of the lectures are available on the BNEN website.
Autres infos	<p>This course is part of the Advanced Master programme in nuclear engineering organized by the Belgian Nuclear Higher Education Network (BNEN). BNEN is organised through a consortium of six Belgian universities and the Belgian Nuclear Research Centre, SCK-CEN and takes place at the SCK-CEN in Mol.</p> <p><b>Prof. Hamid Aït Abderrahim</b> ' Université Catholique de Louvain-la-Neuve</p>
Faculté ou entité en charge:	EPL

<b>Programmes / formations proposant cette unité d'enseignement (UE)</b>				
Intitulé du programme	Sigle	Crédits	Prérequis	Acquis d'apprentissage
Master de spécialisation en génie nucléaire	GNUC2MC	3		