

3.00 crédits		Q2
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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	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. <b>Prof. Hamid Aït Abderrahim</b> ' Université Catholique de Louvain-la-Neuve
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		