

3 credits

Q2

Language :	English
Place of the course	Autre site
Main themes	<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>
Aims	<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> <p>-----</p> <p><i>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".</i></p>
Evaluation methods	Written examination on theory and exercises (open book)
Inline resources	<a href="https://www.sckcen.be/fbnen">https://www.sckcen.be/fbnen</a>
Bibliography	The PowerPoint presentations of the lectures are available on the BNEN website.
Other 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
Faculty or entity in charge	EPL

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Aims
Specialised master in nuclear engineering	<a href="#">GNUC2MC</a>	3		