

**MSc Nuclear Energy @ UPC – Year 1**

<b>Study year</b>	<b>Course name</b>	<b>Course code</b>	<b>ECTS count</b>	<b>Course Type</b>
1	<a href="#"><u>Fundamentals of nuclear engineering and radiation protection</u></a>	240NU011	8	Mandatory
1	<a href="#"><u>Systems, components and materials</u></a>	240NU012	6	Mandatory
1	<a href="#"><u>Reactor Physics and Thermal Hydraulics</u></a>	240NU013	7.5	Mandatory
1	<a href="#"><u>Fuel Cycle and Environmental Impact (FCEI)</u></a>	240NU014	5.5	Mandatory
1	<a href="#"><u>Course Project 1</u></a>	240NU015	3	Mandatory
1	<a href="#"><u>Regulations and Safety</u></a>	240NU021	5	Mandatory

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1	<a href="#">Management of nuclear power plants</a>	240NU022	8.5	Mandatory
1	<a href="#">Course Project 2</a>	240NU023	3	Mandatory
1	<a href="#">Fusion technology</a>	240NU211	4.5	Elective
1	<a href="#">Non destructive testing methods</a>	240NU212	4.5	Elective
1	<a href="#">Core Design</a>	240NU213	4.5	Elective
1	<a href="#">Seminars</a>	240NU214	4.5	Elective
1	<a href="#">Monte-Carlo methods for radiation transport calculation</a>	240NU215	4.5	Elective

Study year	Course name	Course code	ECTS count	Course Type
1	<a href="#">Nuclear Instrumentation</a>	240NU216	4.5	Elective