

**Subject card**

<b>Subject name and code</b>	, PG_00145189						
<b>Field of study</b>	Nuclear safety and radiological protection						
<b>Date of commencement of studies</b>	October 2024	<b>Academic year of realisation of subject</b>			2024/2025		
<b>Education level</b>	Bachelor's studies	<b>Subject group</b>			Obligatory subject group in the field of study		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	1	<b>Language of instruction</b>			Polish not applicable		
<b>Semester of study</b>	2	<b>ECTS credits</b>			6.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>					
<b>Conducting unit</b>	Faculty of Mathematics, Physics and Informatics -> Rector						
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr hab. Ryszard Drozdowski				
	<b>Teachers</b>		dr hab. Ryszard Drozdowski				
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	45.0	45.0	0.0	0.0	0.0	90
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	<b>Number of study hours</b>	90		0.0		90.0	180
<b>Subject objectives</b>	not applicable						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BJORL3_W01] has a general knowledge of the basic concepts and principles of nuclear physics and chemistry, understands their historical development and their importance not only for nuclear safety and radiation protection, but also for understanding the modern world; has a basic knowledge of biology and ecology	not applicable	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion [SW3] text preparation/written work
	[BJORL3_U03] is able to use the formalism of physics and chemistry to describe phenomena in the microworld; is able to use the methodology of biology and ecology to an elementary extent when describing the effects of radiation on biological objects and in the environment	not applicable	[SU1] oral statement/conversation/ discussion [SU3] text preparation/written work [SU4] test/exam - oral or written
	[BJORL3_W02] Understands the role of physical and chemical experimentation, mathematical theoretical models approximating reality, and computer simulations in scientific research methodology; is aware of technological, apparatus, and methodological limitations in scientific research	not applicable	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion [SW3] text preparation/written work
	[BJORL3_U01] can formulate the basic laws of physics and chemistry using mathematical formalism	not applicable	[SU1] oral statement/conversation/ discussion [SU3] text preparation/written work [SU4] test/exam - oral or written
[BJORL3_W05] has knowledge of the elementary components of matter and the types of fundamental interactions between them, the manifestations of these interactions in phenomena occurring at scales ranging from subatomic to subatomic, knows the time and energy scales associated with these phenomena; knows the basics of biology and ecology in understanding the biological and ecological aspects of nuclear safety and radiation protection	not applicable	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion [SW3] text preparation/written work	
Subject contents	not applicable		
Prerequisites and co-requisites	not applicable		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	not applicable	0.0%	5.0%
	not applicable	51.0%	45.0%
	not applicable	51.0%	50.0%
Recommended reading	Basic literature	not applicable	
	Supplementary literature	not applicable	
	eResources addresses	Adresy na platformie eNauzanie:	
Example issues/ example questions/ tasks being completed	not applicable		
Work placement	Not applicable		

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