

**Subject card**

<b>Subject name and code</b>	Toxicology of plants and animals, PG_00179423						
<b>Field of study</b>	Environmental Protection						
<b>Date of commencement of studies</b>	October 2026	<b>Academic year of realisation of subject</b>			2028/2029		
<b>Education level</b>	Bachelor's studies	<b>Subject group</b>			Optional subject group		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	3	<b>Language of instruction</b>			Polish		
<b>Semester of study</b>	5	<b>ECTS credits</b>			2.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>			credit		
<b>Conducting unit</b>	Laboratory of Toxicology and Radiation Protection -> Department of Environmental Chemistry and Radiochemistry -> Faculty of Chemistry -> Rector						
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr hab. Dagmara Strumińska-Parulska				
	<b>Teachers</b>						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	30.0	0.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
	Additional information: lecture with multimedia presentation						
<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>	30		5.0		15.0	50
<b>Subject objectives</b>	familiarizing students with all issues mentioned in the lecture program content						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[OŚL3_W01] Discusses the basic concepts of mathematics, physics, chemistry and biology. Describes physical, chemical and biological phenomena occurring in nature as well as geological, geomorphological and climatic conditions of the functioning of nature.	1. knows the basic goals and tasks of toxicology,	[SW1] oral statement/ conversation/discussion
	[OŚL3_K04] Demonstrates responsibility for the safety of her/his own and others' work and for the workplace, and correctly follows the rules of conduct in emergencies.	1. is aware of the risk of toxic substances in is aware of the risk of toxic substances in the human environment, 2. risk communication, 3. raises awareness and warns the public about surrounding, easily accessible poisonous substances contained in plant and animal organisms,	[SK1] oral statement/conversation/ discussion
	[OŚL3_K05] Identifies the level of her/his knowledge and skills, demonstrates the need to update knowledge about the environment and its protection, demonstrates the need for continuous professional training and personal development.	understands the need for further education in the field of plant and animal toxicology	[SK1] oral statement/conversation/ discussion
	[OŚL3_W02] Characterises the relationships and relationships between various disciplines of natural sciences and science, uses knowledge of mathematics, physics, chemistry and biology in the description of basic concepts, concepts and principles in environmental protection.	1. knows poisonous plants and the structure and properties of the basic active substances found in them, 2. knows the most poisonous animals in the world	[SW1] oral statement/ conversation/discussion
	[OŚL3_U04] Uses specialist language in the discussion and properly uses the nomenclature in the field of environmental protection and individual disciplines related to it.	1. uses correct toxicological terminology, 2. identifies poisonous plants, 3. identifies poisonous animals, 4. uses professional toxicological literature. 5. recognizes and knows how to use the effects of the most common herbs,	[SU1] oral statement/conversation/ discussion
	[OŚL3_W06] Characterises levels of life organization, biodiversity and the interaction of organisms and the environment.	1. knows the types and course of poisonings and the general principles of prevention against poisoning 2. knows the types and toxicodynamic properties of selected plant and animal toxins,	[SW1] oral statement/ conversation/discussion
Subject contents	Tasks of toxicology. Basic concepts, goals and toxicological relationships. Mechanisms of toxic action and detoxification mechanisms. Toxic compounds of natural origin - plant and animal toxins. Poisonous plants and their active substances. The most poisonous animals in the world. The use of plant and animal toxins in human life. Biologically active compounds of herbal plants and their therapeutic properties.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	oral exam	51.0%	50.0%
	activity	51.0%	50.0%
Recommended reading	Basic literature	Seńczuk W (red.): Toksykologia współczesna, PZWL, 2006,  Piotrowski J.K. (red.): Podstawy toksykologii. Kompendium dla studentów szkół wyższych, WNT, 2008,  Altmann H., Atlas trujących roślin i jadowitych zwierząt, Świat Książki, 2004	

	Supplementary literature	-
	eResources addresses	
Example issues/ example questions/ tasks being completed	according to the lecture content	
Work placement	Not applicable	

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