

Subject card

Subject name and code	Functional anatomy of the Vertebrates, PG_00146086						
Field of study	Biology						
Date of commencement of studies	October 2026	Academic year of realisation of subject			2028/2029		
Education level	Bachelor's studies	Subject group			Obligatory subject group in the field of study Optional subject group		
Mode of study	full-time studies	Mode of delivery			at the university		
Year of study	3	Language of instruction			Polish		
Semester of study	6	ECTS credits			1.0		
Learning profile	academic	Assessment form			credit		
Conducting unit	Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		prof. dr hab. Magdalena Remisiewicz				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	15		2.0		8.0	25
Subject objectives	Understanding the relationship between the structure and function of systems and internal organs in vertebrates in the context of adaptation to the environment.						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	[BIOLL3_U12] The graduates will be able to use Polish and foreign languages specific to biology in a way that is understandable and accessible to both specialists and non-specialists		Can use specialized Polish and foreign language terminology in biology in a understandable and accessible way for both specialists and non-specialists.			[SU4] test/exam - oral or written	
	[BIOLL3_W05] The graduate knows the rules and describe the mechanisms of life at the population, biocenosis and ecosystem levels and the temporal and spatial determinants of biodiversity		Explains the basic mechanisms of vertebrate functioning			[SW4] test/exam - oral or written	
	[BIOLL3_W07] The graduate is conversant with the types of natural environments (habitats) from a structural and functional perspective, as well as the selected species of flora and fauna of coastal areas and the methods and forms of nature conservation		Identifies selected species of fauna and characterizes them in terms of their structural and functional aspects			[SW4] test/exam - oral or written	

Subject contents	Anatomical adaptations of the musculoskeletal system in vertebrates to the environment and lifestyle. Homology of anatomical elements of the musculoskeletal system and the relationship between their structure and function in various groups of vertebrates: axial skeleton and limb skeleton. Anatomical features of the oral apparatus in vertebrates from different groups and their functional adaptation to feeding habits. Anatomical adaptations of the digestive system in vertebrates to feeding habits. The connection between the function and anatomy of the respiratory system in vertebrates with the environment and lifestyle of vertebrates. Structure and adaptation of the circulatory system to the living environment of vertebrates from different groups		
Prerequisites and co-requisites	none		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Test with open questions	51.0%	100.0%
Recommended reading	Basic literature	<ol style="list-style-type: none"> 1. Liem K. Bemis W, Walker W. F. Grande L. 2001. Functional Anatomy of the Vertebrates: An Evolutionary Perspective. Thomson Brooks/Cole. 2. Kardong K. V. Vertebrates; comparative anatomy, function, evolution. 2005. McGraw-Hill Science/Engineering/Math 3. Nowakowski J.K., Szulc J., Remisiewicz M. 2014. The further the flight, the longer the wing: relationship between wing length and migratory distance in Old World reed and bush Warblers (Acrocephalidae and Locustellidae). <i>Ornis Fennica</i> 91: 178-186. 	
	Supplementary literature	<ol style="list-style-type: none"> 1. Kapitt. W., Elson L. M. 2022. The Anatomy Coloring Book. Waltham, Massachusetts, United States 	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Anatomical adaptations of the musculoskeletal system in vertebrates to the environment and lifestyle. Homology of anatomical elements of the musculoskeletal system and the relationship between their structure and function in various groups of vertebrates: axial skeleton and limb skeleton. Anatomical features of the oral apparatus in vertebrates from different groups and their functional adaptation to feeding habits. Anatomical adaptations of the digestive system in vertebrates to feeding habits. The connection between the function and anatomy of the respiratory system in vertebrates with the environment and lifestyle of vertebrates. Structure and adaptation of the circulatory system to the living environment of vertebrates from different groups		
Work placement	Not applicable		

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