

Subject card

Subject name and code	Vertebrate Ecophysiology, PG_00154693						
Field of study	Medical Biology						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	Master'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	2		Language of instruction		English		
Semester of study	3		ECTS credits		2.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Laboratory of Avian Ecophysiology -> Department of Vertebrate Ecology and Zoology -> Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Agnieszka Ożarowska				
	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						
	Additional information:						
	Lectures with multimedia presentations in English						
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		33.0	50
Subject objectives	The lecture covers a broad range of topics in ecophysiology of vertebrates, including adaptation to environmental factors, effects of stress factors on the condition of individuals, daily and annual cycles, metabolic changes in response to the changes in living conditions and environment.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[BIOLMEDMU2_W02] is oriented to the currently debated problems in medical biology and related disciplines		The student recognizes currently discussed problems concerning medical biology and related disciplines, including physiology and ecology of vertebrates		[SW4] test/exam - oral or written		
	[BIOLMEDMU2_K02] is ready to recognize the importance of knowledge in solving cognitive and practical problems and to seek expert advice when having difficulty solving a problem on his own		The student recognizes the importance of knowledge in solving cognitive and practical problems, and consults experts in case of difficulties in solving the scientific problem		[SK4] test/exam - oral or written		
	[BIOLMEDMU2_U01] can proficiently, but critically, use the scientific literature and databases necessary in the activities of medical biology and related disciplines		The student uses scientific literature and databases necessary in the studies of medical biology and related disciplines fluently, but in a critical way		[SU4] test/exam - oral or written		

Subject contents	An overview of physiological processes occurring in living organisms (respiration, energy metabolism, digestion and absorption, thermoregulation, water and mineral regulation). Adaptations and plasticity in response to changing environmental conditions, e.g., Dehnel phenomenon, daily and annual life cycles. Energy reserves and strategies for their use and replenishment in migratory and sedentary vertebrates. Condition indices. Body temperature regulation (endo- and ectotherms), torpor, hibernation. Stress reactions - behavioural and physiological reactions to stress factors.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	written test	51.0%	50.0%
	attendance at classes	85.0%	50.0%
Recommended reading	Basic literature	Causey Whittow G. 2000. Avian Physiology. Academic Press. Hill W., Wyse G. A., Anderson M. 2016. Animal Physiology. Oxford University Press. Randal D., Burggren W., French K. 2002. Eckert Animals physiology: mechanisms and adaptations. W.H. Freeman and Co. Futuyma D. 2013. Evolution. Sinauer.	
	Supplementary literature	Zaniewicz G., Meissner W., Ożarowska A. 2018. Estimation of fat reserves of Robins (<i>Erithacus rubecula</i>) migrating through the southern coast of the Baltic Sea in spring. Ornis Fennica 95.	
	eResources addresses		
	Example issues/ example questions/ tasks being completed		
Work placement	Not applicable		

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