

Subject card

Subject name and code	Animal and human physiology, PG_00207409						
Field of study	Biology						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2027/2028		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish		
Semester of study	3		ECTS credits		3.0		
Learning profile	academic		Assessment form		exam		
Conducting unit	Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Jolanta Orzeł-Gryglewska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	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	30		2.0		43.0	75
Subject objectives	1. Learning about basic life processes, in particular the mechanisms of their regulation and integration in animal and human organisms.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[BIOLL3_W07] knows the development of biology as a science, its connections with other disciplines and the principles of using biological knowledge in the economy and social life, including ways that are entrepreneurial						
	[BIOLL3_W02] knows and understands at an advanced level the structure and properties of biological macromolecules, mechanisms of metabolism, flow of genetic information, sources of variation in organisms; rules of inheritance		The student demonstrates the relationship between the intensity of specific physiological processes in animals and the adaptation of the body to changing environmental conditions		[SW4] test/exam - oral or written		
	[BIOLL3_W01] knows and understands at an advanced level the structure and functioning of organisms at all levels of the organization of life - from the cell (prokaryotic and eukaryotic), through tissues, organs, to the organism - as well as the relationships between them and their adaptations to the environment						

Subject contents	Basics of physiology of the central nervous system - physiology of movement and sensation. Features of excitable tissue, physiology of striated and smooth muscles, types of its contractions. Reflex as a basic functional unit of the central nervous system. Classification of reflex reactions and levels of integration (spinal, subcortical, cortical). Physiology of vegetative functions: regulation of blood circulation and heart function. Basics of the physiology of breathing and physical exercise. The structure and role of blood. Central adaptive reactions and stress. Physiology of the digestive system, digestive processes. Body fluids and water and mineral management, homeostasis, excretion and kidney functions. Hormonal regulation of vegetative activities.		
Prerequisites and co-requisites	Basic knowledge of human anatomy. It is necessary to pass exercises before taking the exam.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	written exam, multiple choice test, 1.5 hours	51.0%	100.0%
Recommended reading	Basic literature	Lewandowska D., Orzeł-Gryglewska J., Jurkowlaniec E. 2019. Fizjologia zwierząt i człowieka, Wydawnictwo Uniwersytetu Gdańskiego. Ganong W. F., 2007. Fizjologia. Wydawnictwo Lekarskie PZWL, Warszawa. Felten D.L. Józefowicz R. 2007. Atlas neuroanatomii i neurofizjologii Nettera. Urban & Partner, Wrocław. Konturek S. J. 2007. Fizjologia człowieka. Podręcznik dla studentów medycyny. Elsevier Urban & Partner, Wrocław.	
	Supplementary literature	Traczyk W., Trzebski A. 2015. Fizjologia człowieka z elementami fizjologii stosowanej i klinicznej. PZWL, Warszawa.	
	eResources addresses		
Example issues/ example questions/ tasks being completed	resting and action potential features of the reflex reaction centers and tracts of the spinal cord heart cycle, ECG analysis lung volume and capacity phases of gastric juice secretion nephron structure and function activity of hypothalamic thermoregulation centers		
Work placement	Not applicable		

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