

Subject card

Subject name and code	Neurophysiology, PG_00207429						
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 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	3		Language of instruction			Polish	
Semester of study	5		ECTS credits			1.0	
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	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		1.0		9.0	25
Subject objectives	Demonstrating the primary role of the nervous system in controlling human vital functions.						

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_W05] has advanced knowledge of experimental methods, laboratory and field techniques, and the principles of planning and conducting biological research		
	[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		
	[BIOLL3_U07] is able to present and justify her/his adopted position, using appropriate scientific argumentation, adapted to various audiences, and take part in discussions or debates		
Subject contents	Physiology of the central and peripheral nervous system. Peripheral nerves and their function. Levels of integration of the posture mechanism. The involvement of the spinal cord and individual brain structures in behavioral reactions. The limbic system and the reticular formation. Extrapyramidal system. Function of the cerebral cortex with the basics of electroencephalography, mechanisms of sleep and wakefulness. Localization of functions in the cerebral cortex.		
Prerequisites and co-requisites	Basic knowledge of human physiology and anatomy Before taking the exam, you must complete the exercises in this subject.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	written test exam	51.0%	100.0%
Recommended reading	Basic literature	Lewandowska D., Orzeł-Gryglewska J., Jurkowlaniec E. 2019. Fizjologia zwierząt i człowieka. Wydawnictwo Uniwersytetu Gdańskiego. Felten D.L. i wsp. 2003. Atlas neuroanatomii i neurofizjologii Nettera. Elsevier Urban & Partner, Wrocław. Ganong W.F., 2007. Fizjologia. Wydawnictwo Lekarskie PZWL, Warszawa Narkiewicz O., Moryś J. Neuroanatomia czynnościowa i kliniczna. Wydawnictwo Naukowe PZWL, Warszawa.	
	Supplementary literature	Sadowski B. 2005. Biologiczne mechanizmy zachowania się ludzi i zwierząt. PWN, Warszawa. Brodal Per 2004. The central nervous system. Structure and function. Oxford University Press. Longstaff A. 2002. Neurobiologia. Wydawnictwo Naukowe PWN, Warszawa.	
	eResources addresses		
	Example issues/ example questions/ tasks being completed	Spinal cord tracts and centers Cerebellar structural and functional unit, symptoms of cerebellar damage Centers of the extrapyramidal system Location of speech centers in the cerebral cortex	
Work placement	Not applicable		