

Subject card

Subject name and code	Principles of neuroanatomy, PG_00203438						
Field of study	Medical 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 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	2		Language of instruction		Polish		
Semester of study	3		ECTS credits		1.0		
Learning profile	academic		Assessment form		exam		
Conducting unit	Laboratory of Neurophysiology and Neurochemistry -> Department of Animal and Human Physiology -> Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Witold Żakowski				
	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	1. Students will learn the detailed structure of the human nervous system. 2. Demonstrating the primary role of the nervous system in controlling human vital functions. 3. Acquiring the skills to independently deepen and transfer knowledge.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLMEDL3_W04] has advanced knowledge of medical biology and its latest developments, and is familiar with and understands issues related to the role of medical biology in human health care	has advanced knowledge of human neuroanatomy and knows the neuroscientific terminology	[SW4] test/exam - oral or written
	[BIOLMEDL3_K01] is aware of the importance of lifelong learning and keeping up to date with developments in medical biology and related disciplines, and applies this knowledge to the planning and design of professional activities	understands the need for lifelong learning and updating knowledge of human neuroanatomy	[SK8] observation of student's independent or team work
	[BIOLMEDL3_W10] has an advanced understanding of the principles of assessing processes and phenomena occurring within the body, using physical or chemical measurements, and possesses advanced knowledge of experimental methods and the key techniques of the biological sciences that may be applied in medical biology and diagnostics	explains the theoretical basis of experimental methods and lists the most important neurobiological techniques that can be used in research on the nervous system	[SW4] test/exam - oral or written
	[BIOLMEDL3_W02] has an advanced knowledge and understanding of the structure of the animal or human body, processes and functional relationships at the cellular, tissue, organ and organismal levels, as well as physiological and biochemical processes at an advanced level, and the mechanisms of the pathophysiology of diseases, and explains their relationship with behaviour and the organism's	knows the structure of the human nervous system and functional relationships at the tissue and organ level, and explains the relationship with behavior	[SW4] test/exam - oral or written
Subject contents	Basics of human ontogenetic development. Division of the nervous system into the central and peripheral parts. Levels of integration in the central nervous system. Functional localization in the cerebral cortex. Nerve pathways of selected systems: sensory and motor, visual, auditory and balance. The hypothalamus as an integrator of the functions of the somatic, hormonal, limbic and autonomic systems. Telencephalic nuclei. Reticular system. Features of cerebral circulation. Transmitter systems of the central and peripheral nervous system.		
Prerequisites and co-requisites	Basic knowledge of human anatomy and physiology. Introductory classes/lectures: Human functional anatomy.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Exam	51.0%	100.0%
Recommended reading	Basic literature	1. Narkiewicz O., Moryś J., 2003. Neuroanatomia czynnościowa i kliniczna. PZWL, Warszawa. 2. Gołąb B., 2014. Anatomia czynnościowa ośrodkowego układu nerwowego. 3. Fix J., Neuroanatomia, Urban & Partner, Wrocław 1997. 4. Felten D. L., Shetty A. N., 2012. Atlas neuroanatomii i neurofizjologii Nettera. Elsevier Urban & Partner	
	Supplementary literature	1. Nolte J., 2011. Mózg człowieka. Anatomia czynnościowa mózgowia. Elsevier Urban & Partner 2. Lewandowska D., Orzeł-Gryglewska J., Jurkowlanec E. [red], 2019. Fizjologia zwierząt i człowieka. Wydawnictwo UG, Gdańsk.	
	eResources addresses		
Example issues/ example questions/ tasks being completed	1. Macroscopic structure of the nervous system 2. Meninges, ventricles and cerebrospinal fluid 3. Vascularization of the central nervous system 4. Development of the nervous system 5. Neurohistology 6. Detailed neuroanatomy. 7. Sensory and motor systems 8. Neurotransmitter systems		
Work placement	Not applicable		

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