

Subject card

Subject name and code	Neurophysiology, PG_00196844						
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			2.0		
Learning profile	academic	Assessment form			credit		
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	0.0	0.0	30.0	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		5.0		15.0	50
Subject objectives	<p>1. Demonstrating the primary role of the nervous system in controlling human vital functions.</p> <p>2. Acquiring competence in laboratory group work and the ability to independently deepen and transfer knowledge</p>						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLL3_U12] The graduate is able to use Polish and foreign languages specific to biology in a way that is understandable and accessible to both specialists and non-specialists	The student is able to use specialized terms in the field of neurophysiology in a way that is understandable and accessible to both specialists and non-specialists.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU8] observation of student's independent or team work
	[BIOLL3_W14] The graduate has an advanced understanding of experimental methods and the most important techniques used in the biological sciences	The student knows the theoretical basis of neurophysiological methods and the most important techniques in this field	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report [SW3] text preparation/written work
	[BIOLL3_W03] The graduate knows and understands at an advanced level the structure and functional relationships at the cellular, tissue, organ and organismal levels	the student knows the structure of the nervous system and the functional relationships within this system at the cellular, tissue and organ levels and also describes the primary role of the nervous system in the body	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report [SW3] text preparation/written work
	[BIOLL3_W10] The graduate is familiar with the development and current state of knowledge and the latest trends in biology, as well as their relationship with other natural disciplines	The student is aware of the current state of knowledge and the latest neurophysiological trends, as well as their relationship with other natural science disciplines.	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report [SW3] text preparation/written work
	[BIOLL3_W04] The graduate knows and understands at an advanced level the course of physiological processes and their relationship to the adaptation of the organism to changing environmental conditions	the student describes the course of neurophysiological processes and their relationship with the body's adaptation to changing environmental conditions	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report [SW3] text preparation/written work
	[BIOLL3_K01] The graduate is prepared to evaluate his/her own knowledge, understand the need for continuous learning and development, and is open to new ideas	The student is able to assess his or her own neurophysiological knowledge, understands the need for constant learning and development, and is open to new ideas	[SK1] oral statement/conversation/discussion [SK8] observation of student's independent or team work
	[BIOLL3_U03] The graduate, under the guidance of a mentor, is able to carry out simple tasks or research expertise typical of the biological sciences	Under the supervision of a supervisor, the student performs simple neurophysiological tests and experiments	[SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	[BIOLL3_K08] The graduate is ready to be honest, reliable and apply the principles of savoir-vivre in academic and professional work	the student complies with the principles of honesty, reliability and savoir-vivre in scientific and professional work	[SK8] observation of student's independent or team work
[BIOLL3_K07] The graduate is prepared to apply the principles of bioethics consciously	The student consciously applies the principles of bioethics in neurophysiological experiments on animals and humans	[SK1] oral statement/conversation/discussion [SK8] observation of student's independent or team work	
Subject contents	Registration of selected physiological processes in animals and humans. Physiology of the senses, familiarization with the basic tests used in clinical examinations of the sense organs. Recognizing the causes of postural function disorders. Registration of cerebral cortex activity. Observation of examples of conditioned reflexes.		
Prerequisites and co-requisites	Basic knowledge of human physiology and anatomy the need to pass exercises before the exam in this subject		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	test/colloquium	51.0%	55.0%
	presentation/essay	51.0%	10.0%
	report	51.0%	15.0%
	"entrance ticket"	51.0%	20.0%
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	<p>examination of spinal reflexes</p> <p>examination of the visual field and blind spot</p> <p>audiographic examination</p> <p>Electroencephalography</p>	
Work placement	Not applicable	

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