University of Gdańsk

Subject card

Subject name and code	Neurophysiology, PG_00154445						
Field of study	Biology						
Date of commencement of studies	October 2025		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	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 Beata Grembecka				
	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	1. Demonstrating the primary role of the nervous system in controlling human vital functions. 2. Acquiring competence in laboratory group work and the ability to independently deepen and transfer knowledge						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BIOLL3_W14] The graduate knows the theoretical basis of experimental methods and the most important techniques of 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_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 is conversant with 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_W03] The graduate knows 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_U12] The graduates will be 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_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
[BIOLL3_K01] The graduate is prepared to evaluate their 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

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	examination of spinal reflexes examination of the visual field and blind spot audiographic examination Electroencephalography	
Work placement	Not applicable	

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