University of Gdańsk

Subject card

Subject name and code	Neurophysiology, PG_00203436		
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	2.0
Learning profile	academic	Assessment form	credit
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	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	6.0	14.0	50

Subject objectives

1. Demonstrating the primary role of the nervous system in controlling human vital functions.
2. Acquiring the ability to conduct neurophysiological observations/experiments while respecting the principles of bioethics.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[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 in the field of neurophysiology	[SK8] observation of student's independent or team work
[BIOLMEDL3_U02] performs simple tasks or research expertise typical of medical biology under the guidance of a supervisor	under the supervision of a scientific supervisor, performs simple tests or examinations to assess the function of the nervous system	[SU2] presentation/project/paper/ report [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
[BIOLMEDL3_U08] is able to give oral presentations in Polish or English on specific topics in medical biology and can use specialist medical biology terminology in a way that is clear and accessible to both specialists and non-specialists	Is able to present neurophysiological topics orally and use specialist terminology	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report [SU3] text preparation/written work [SU4] test/exam - oral or written
[BIOLMEDL3_K07] The student is able to apply the principles of bioethics in an informed manner and is prepared to carry out honest and reliable academic and professional work	consciously applies the principles of bioethics	[SK8] observation of student's independent or team work

Subject contents

Recording selected physiological processes in humans. Familiarization with basic tests used in clinical examinations of sensory organs. Neurological reflexes in humans. Recognition of the causes of autonomic function disorders. Recording of cerebral cortex activities. Methods of research on executive functions

Prerequisites and co-requisites

Basic knowledge of human physiology and anatomy.
It is necessary to obtain a pass in this subject before the lecture exam.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
"entrance ticket"	51.0%	20.0%
report	51.0%	20.0%
presentation/essay	51.0%	5.0%
test/colloquium	51.0%	55.0%

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

1. Conduction of impulses in the nervous system.
2. Testing spinal reflexes.
3. Determining the field of vision and the blind spot.
4. Audiological examination.
5. Memory tests.
6. EEG examination.

Work placement

Not applicable

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