University of Gdańsk

Subject card

Subject name and code	Biological mechanisms of human behavior - auditorium classes, PG_00133957		
Field of study	Criminology		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study Subject group related to scientific research in the field of study
Mode of study	part-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	1.0
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 Grażyna Jerzemowska	
	Teachers	dr Grażyna Jerzemowska	

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	10.0	0.0	0.0	0.0	10

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	10	0.0	15.0	25

Subject objectives

Understanding human behavior in the context of the functioning of the central and peripheral nervous system.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[KRYML3_U01] Is able to apply theoretical knowledge in criminology and related scientific disciplines to analyse, interpret, and solve complex and non-routine problems related to crime and security in changing and not fully predictable conditions. The graduate is able to communicate with the environment, justify their own position, and independently plan and pursue lifelong learning.		
[KRYML3_W03] Has advanced knowledge and understanding of facts, theories, methods, and complex relationships concerning selected phenomena related to prohibited acts, in particular key social and psychological phenomena relevant to criminology, as well as their social, psychological, and cultural determinants.		

Subject contents	1) Biological mechanisms of human functioning (genetics and behavior; theory of evolution; ethology; eugenics), 2) Structure and development of the nervous system (nerve cells; electrophysiology; CNS: structure of the telencephalon, diencephalon, midbrain, hindbrain; peripheral nervous system), 3) Physiology of sensory receptors, 4) Topographic and functional division of the nervous system, 5) Basic models of the brain-behavior relationship, 6) Hormonal management and the main neurotransmitter systems of the brain and their role in behavior, 6) Selected behavioral disorders and cognitive deficits resulting from abnormal functioning of the CNS, 7) Neuroimaging and contemporary directions of development of neurosciences.
Prerequisites and co-requisites	Knowledge of human biology at the primary school level.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
The degree of student involvement in the discussion during the exercises.	0.0%	20.0%
Average grade from positive partial grades from tests and issues developed in the form of presentations/reports/problem tasks ("Regulations of UG Studies")	51.0%	80.0%

Recommended reading

Basic literature	Lewandowska D., Orzeł-Gryglewska J. Fizjologia zwierząt i człowieka przewodnik do ćwiczeń, Wydawnictwo UG, 2009 Kalat J.W. Biologiczne podstawy psychologii, PWN, Warszawa, 2006,
Supplementary literature	Traczyk W.Z. Fizjologia człowieka w zarysie PZWL, 2024 Górska T., Grabowska A., Zagrodzka J. (red.) Mózg a zachowanie. Wydawnictwo Naukowe PWN, Warszawa, 1997. Narkiewicz O., Moryś J. Neuroanatomia czynnościowa i kliniczna, Wydawnictwo PZWL, 2013
eResources addresses	

Example issues/ example questions/ tasks being completed	1) Nerve cells (structure and division), Electrophysiology, 3) Neurodegenerative diseases associated with impaired functioning of the extrapyramidal system
Work placement	Not applicable

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