University of Gdańsk

Subject card

Subject name and code	The biological basis of human behavior, PG_00079850						
Field of study	Biologiczne podstawy zachowania człowieka (Wykład)						
Date of commencement of studies	October 2022		Academic year of realisation of subject	2024/2025			
Education level	Bachelor's studies		Subject group				
Mode of study	full-time studies		Mode of delivery	at the university			
Year of study	3		Language of instruction	Polish			
Semester of study	6		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	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		0.0	0.0	15	
Subject objectives	Understanding the neurobiological mechanisms of the basis and regulation of human behavior.						

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 biological sciences	[1785] [BIOLL3_U06] Has a deep awareness of their knowledge level regarding the basics of animal and human behavior and knows the main research methods.	[SW4] test/egzamin - ustny lub pisemny [SW2] prezentacja/projekt/referat/ raport
	[BIOLL3_W10] the graduate knows and understands to an advanced degree the development and current state of knowledge and the latest trends in biology, as well as their relationship with other natural disciplines	[1803] [BIOLL3_W10] The student knows the current state of knowledge and the latest trends in neurobiology and behavior, and has learned their relationship with other natural and medical sciences.	[SW4] test/egzamin - ustny lub pisemny [SW2] prezentacja/projekt/referat/ raport
	[BIOLL3_W04] the graduate knows and understands to an advanced degree the course of physiological processes and their relationship to the adaptation of the organism to changing environmental conditions	[1796] [BIOLL3_W04] Understands the course of basic physiological processes and their relationship with the organism's adaptation to changing environmental conditions	[SW4] test/egzamin - ustny lub pisemny
	[BIOLL3_W03] the graduate knows and understands to an advanced degree the structure and functional relationships at the cellular, tissue, organ and organismal levels	[1798] [BIOLL3_W03] The student defines the structure and relationships of the main neurotransmitter systems in the brain and can link them to behavior	[SW4] test/egzamin - ustny lub pisemny [SW2] prezentacja/projekt/referat/ raport
	[BIOLL3_U12] the graduate is able to use Polish and foreign language, specialized for biology, in a way that is understandable and accessible to both specialists and non-specialists	[1791] [BIOLL3_U12] The student can use the specialized Polish language in neurobiology in a clear and accessible manner and learns in a directed way	[SU2] prezentacja/projekt/referat/ raport [SU4] test/egzamin - ustny lub pisemny
	[BIOLL3_U08] the graduate is able to learn independently, in a focused manner	[1787] [BIOLL3_U08] The student can learn independently in a directed manner.	[SU4] test/egzamin - ustny lub pisemny
	[BIOLL3_U07] the graduate is able to independently search and use available sources of biological information, including electronic sources	[1786] [BIOLL3_U07] Independently searches for and uses available biological information sources, including electronic ones, especially when preparing multimedia presentations and studying for exams, and draws appropriate conclusions about behavior based on them.	[SU2] prezentacja/projekt/referat/ raport [SU4] test/egzamin - ustny lub pisemny
	[BIOLL3_U06] the graduate can read with understanding simple scientific biological texts in Polish and simple texts in English	[1785] [BIOLL3_U06] Reads and comprehends simple scientific biological texts in Polish and simple texts in English related to specific issues in neurobiology and behavior.	[SU2] prezentacja/projekt/referat/ raport [SU4] test/egzamin - ustny lub pisemny
	[BIOLL3_K08] the graduate is ready to be honest, reliable, apply the principles of savoir-vivre in scientific and professional work	[1778] [BIOLL3_K08] The student understands the need for conscious application of honesty and integrity in scientific work.	[SK2] prezentacja/projekt/referat/ raport
	[BIOLL3_K07] the graduate is ready to consciously apply the principles of bioethics	[1777] [BIOLL3_K07] The student understands the need to consciously apply bioethical principles, honesty, and integrity in scientific work.	[SK2] prezentacja/projekt/referat/ raport
Subject contents	The concept and terminology of behaviorbehaviorism, and issues of the psyche-brain relationship. The neurochemical and structural basis of the reaction of the fundamental importance for the survival of the individual and the maintenance of the species (drive and emotion). The main neurotransmitter systems of the brain and their role in behavior. Central and peripheral regulation of eating behavior, thirst, appetitive defensive, sexual, and parental. Developmental neurobiology and addictions. Brain plasticity. Mechanisms of conditioning and learning. Memory.		
Prerequisites and co-requisites	Basic knowledge of human physiology and anatomy.		

<table>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Presentation/project as an additional final work, assessed by percentage index (“Regulations of UG Studies”).</td><td>51.0%</td><td>20.0%</td></tr>
<tr><td>Test with open and task questions and figures to describe, assessed by percentage index (“Regulations of UG Studies”).</td><td>51.0%</td><td>80.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>(1) B. Sadowski Biologiczne mechanizmy zachowania się ludzi i zwierząt PWN, 2005; (2) Górska T., Grabowska A., Zagrodzka J. (red.) Mózg a zachowanie. Wydawnictwo Naukowe PWN, Warszawa; 1997; (3) D. Lewandowska, J. Orzeł-Gryglewska Fizjologia zwierząt i człowieka przewodnik do ćwiczeń, Wydawnictwo UG, 2009; (4) Longstaff A. Neurobiologia. Wydawnictwo Naukowe PWN, Warszawa, 2002.</td></tr>
<tr><td>Supplementary literature</td><td>(1) Narkiewicz O., Moryś J. Neuroanatomia czynnościowa i kliniczna. Wydawnictwo Naukowe PZWL, Warszawa, 2013; (2) Per Brodal. The central nervous system. Structure and function. Oxford University Press (4-th Edition), 2010; (3) Robert W. Sussman. The biological basis of human behavior. A critical Review (2-nd Edition). Advances in Human Evolution Series. 1999; (3) Geoffrey Grant Pope. The biological bases of human behawior, William Paterson University, USA, 2000, (4) current scientific literature: congress materials and articles in specialist journals recommended by the lecturer,</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">1) Discussion of the mechanisms of peripheral and central regulation of eating behavior and thirst, (2) Discussion of the mechanisms of peripheral and central regulation of appetitive, defensive, sexual, and parental behavior, (3) Discussion of the causes and developmental mechanisms of the most common CNS disorders.</td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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