

Subject card

Subject name and code	Biological basis of human behavior, PG_00211130						
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		
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						
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		1.0		9.0	25
Subject objectives	Understanding the neurobiological mechanisms of the basis and regulation of human behavior.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLL3_W07] knows the development of biology as a science, its connections with other disciplines and the principles of using biological knowledge in the economy and social life, including ways that are entrepreneurial		
	[BIOLL3_W05] has advanced knowledge of experimental methods, laboratory and field techniques, and the principles of planning and conducting biological research		
	[BIOLL3_W01] knows and understands at an advanced level the structure and functioning of organisms at all levels of the organization of life - from the cell (prokaryotic and eukaryotic), through tissues, organs, to the organism - as well as the relationships between them and their adaptations to the environment		
	[BIOLL3_U07] is able to present and justify her/his adopted position, using appropriate scientific argumentation, adapted to various audiences, and take part in discussions or debates		
	[BIOLL3_U03] is able to search for, select and critically analyze information from various sources, including scientific literature and electronic databases, as well as read and understand scientific texts in Polish and English		
	[BIOLL3_K04] is ready to apply the principles of bioethics, scientific integrity and honesty, including the proper handling of biological material and respect for intellectual property		
Subject contents	[BIOLL3_K01] is ready to critically evaluate her/his biological knowledge and continuously update and develop it, taking into account scientific advances and the needs of practice		
	The concept and terminology of behavior, behaviorism, 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.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Presentation/project as an additional final work, assessed by percentage index ("Regulations of UG Studies"),	51.0%	20.0%
	Test with open and task questions and figures to describe, assessed by percentage index ("Regulations of UG Studies")	51.0%	80.0%
Recommended reading	Basic literature	(1) B. Sadowski Biologiczne mechanizmy zachowania się ludzi i zwierząt PWN, 2005; (2) Górka 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.	

	Supplementary literature	(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 behavior, William Paterson University, USA, 2000, (4) current scientific literature: congress materials and articles in specialist journals recommended by the lecturer,
	eResources addresses	
Example issues/ example questions/ tasks being completed	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.	
Work placement	Not applicable	

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