University of Gdańsk

Subject card

Subject name and code	The biological basis of human behavior, PG_00149041						
Field of study	Medical Biology						
Date of commencement of studies	October 2024		Academic year of realisation of subject	2026/2027			
Education level	undergraduate 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				
Conducting unit	Pracownia Neurofizjologii i Neurochemii -> Katedra Fizjologii Zwierząt i Człowieka -> Faculty of Biology						
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		2.0		8.0	25
Subject objectives	Understanding the neurobiological mechanisms of the basis and regulation of human behavior.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BIOLMEDL3_U11] is able to use language specialized for medical biology in a way that is clear and accessible to both specialists and non-specialists alike	[11958] [BIOLMEDL3_U11] Can use specialized Polish language in neurobiology in a clear and accessible manner and learns in a directed way.	[SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
[BIOLMEDL3_U06] reads with understanding scientific texts in Polish and simple texts in English in the field of medical biology; independently searches and uses available sources of information, including electronic sources	[11925] [BIOLMEDL3_U06] Reads and comprehends simple scientific biological texts in Polish and simple English texts related to specific neurobiology and behavior issues.	[SU2] presentation/project/paper/ report
[BIOLMEDL3_W07] has advanced knowledge of medical biology and is familiar with the health sciences terminology	[12208] [BIOLMEDL3_W07] The student has advanced knowledge of the Biological Basis of Human Behavior and knows the terminology of health sciences.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
[BIOLMEDL3_W11] posiada zaawansowaną wiedzę dotyczącą metod oceny stanu zdrowia oraz objawów i przyczyn wybranych zaburzeń i zmian chorobowych oraz zna podstawy zdrowego trybu życia, potrafi je uzasadnić i promować	[11962] [BIOLMEDL3_W11] The student has advanced knowledge of methods for assessing human behavior and the symptoms and causes of selected behavioral disorders related to neurodegenerative diseases, knows the basics of a healthy lifestyle, and can justify and promote them.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
[BIOLMEDL3_W12] is oriented in the development and current state of knowledge and the latest trends in medical biology; indicates their relationship with other disciplines of natural or medical sciences	[11949] [BIOLMEDL3_W12] The student is aware of the development and current state of knowledge about the Biological Basis of Human Behavior and knows the latest trends in medical biology and behaviorism, indicating their relationship with other natural or medical sciences disciplines.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
[BIOLMEDL3_K01] understands the need for lifelong learning and to update his/her knowledge of medical biology and related disciplines	[11902] [BIOLMEDL3_K01] Understands the need for lifelong learning and updating knowledge in the field of the biological basis of human behavior and related disciplines.	[SK2] presentation/project/paper/ report [SK4] test/exam - oral or written
[BIOLMEDL3_W05] knows the structure, properties and functions of human cells, tissues and organs; human physiological and biochemical processes and mechanisms of disease pathophysiology	[11943] [BIOLMEDL3_W05] Knows the structure, properties, and functions of human cells, tissues, and organs; basic human physiological and biochemical processes and mechanisms of pathophysiology of selected neurodegenerative diseases.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
[BIOLMEDL3_K03] is aware of his/her own limitations and knows when to seek expert assistance	[11908] [BIOLMEDL3_K03] Aware of his own limitations and knows when to turn to experts in the field of behaviorism and neurobiology	[SK2] presentation/project/paper/ report
[BIOLMEDL3_U05] synthesises data from different sources and draws appropriate conclusions from them	[11917] [BIOLMEDL3_U05] Based on the latest English-language literature, he synthesizes data from various sources and draws appropriate conclusions regarding human pathophysiology and behavior mechanisms.	[SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
[BIOLMEDL3_K08] is ready to consciously apply the principles of bioethics	[11972] [BIOLMEDL3_K08] Understands the need for conscious application of bioethical principles in scientific work.	[SK2] presentation/project/paper/ report [SK4] test/exam - oral or written
[BIOLMEDL3_K09] is ready to work with honesty and integrity in his scientific and professional work	[11953] [BIOLMEDL3_K09] Understands the need for honesty, and integrity in scientific work.	[SK2] presentation/project/paper/ report

Course outcome	Subject outcome	Method of verification
[BIOLMEDL3_W03] knows the structure of the animal or human organism, the processes and functional relationships at the cellular, tissue, organ and organismal levels, and explains their relationship to behavior and adaptation of the organism to changing environmental conditions	[11937] [BIOLMEDL3_W03] Knows the structure of the human body, processes, and functional relationships at the cellular, tissue, organ, and organismal levels and explains their relationship with the behavior and adaptation of the body to changing environmental conditions.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
[BIOLMEDL3_U15] learns independently, in a focused manner	[11956] [BIOLMEDL3_U15] The student learns independently and in a directed way.	[SU4] test/exam - oral or written

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.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Test with open and task questions and figures to describe, assessed by percentage index (“Regulations of UG Studies”)	51.0%	80.0%
Presentation/project as an additional final work, assessed by percentage index (“Regulations of UG Studies”),	51.0%	20.0%

Recommended reading

Basic literature	(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.
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 behawior, William Paterson University, USA, 2000, (4) current scientific literature: congress materials and articles in specialist journals recommended by the lecturer ,
eResources addresses	Adresy na platformie eNauczanie:

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

Document generated electronically. Does not require a seal or signature.