University of Gdańsk

Subject card

Subject name and code	Neurobiology of behavior, PG_00154176						
Field of study	Neurobiologia behawioralna (Wykład)						
Date of commencement of studies	October 2023		Academic year of realisation of subject	2024/2025			
Education level	Master's studies		Subject group				
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 Neurobiology -> Department of Animal and Human Physiology -> Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor	dr Irena Majkutewicz					
	Teachers	dr Irena Majkutewicz					
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
	Additional information: • Wykład z prezentacją multimedialną • Dyskusja						
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	4.0	16.0	50		
Subject objectives	Familiarizing the student with the history, methodology and the latest trends in neurobiology.Familiarizing the student with the neurobiological basis of human life functions and cognitive abilities.Familiarizing the student with selected neurological and mental illnesses.Awakening sensitivity to the problems of people with mental or neurological disorders.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BIOLMU2_K04] the graduate is prepared to correctly identify and resolve dilemmas related to the profession of biology	The student knows the principles of ethics in animal experiments. Understanding the causes and mechanisms of various mental and neurological disorders, the student shows openness and tolerance towards people affected by them.	[SK1] wypowiedź ustna/rozmowa/ dyskusja [SK4] test/egzamin - ustny lub pisemny
[BIOLMU2_W04] the graduate has an in-depth knowledge of the chosen speciality of biological sciences	The student characterizes the function of individual brain structures or their functional systems. The student predicts the behavioral effects of specific changes in brain functioning at the structural or synaptic level. The student assigns to selected neurological and mental diseases their characteristic symptoms and changes in the structure and functioning of brain structures.	[SW4] test/egzamin - ustny lub pisemny
[BIOLMU2_U01] the graduate is able to select and apply research techniques and tools appropriate to the problems of the biological sciences specialisation studied	The student selects appropriate techniques and methods in the field of neurobiology for a theoretical solution to the research problem.	[SU4] test/egzamin - ustny lub pisemny
[BIOLMU2_W08] the graduate has an in-depth knowledge and understanding of the wealth of contemporary experimental approaches and techniques in the biological sciences and their use to solve the tasks at hand	The student describes the subject of research and methods used in neurobiology.	[SW4] test/egzamin - ustny lub pisemny

Subject contents

Behavioral neurobiology subject of research, history and methods used in it. General outline of the functional anatomy of the brain. Neuronal function and synaptic transmission. The limbic system the neural basis of emotions. Central mechanisms controlling defense reactions. Central regulation of food intake and its disorders (anorexia, bulimia). Sexual behavior neurohormonal regulation. Sexual dimorphism of the brain. Transsexualism and homosexuality. The brain's reward system and addiction. Central action of psychoactive substances. Neural basis of learning and memory. The impact of computer games on the brain and psychomotor skills. Chronobiology central regulation of biological rhythms. Movement control mechanisms. Neurobiological basis of selected mental diseases and neurological disorders.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
written test	51.0%	100.0%

Recommended reading

Basic literature	B. Sadowski: Biologiczne mechanizmy zachowania się ludzi i zwierząt, PWN, ed. 3, 2012. T. Górska, A. Grabowska, J. Zagrodzka [Eds]: Mózg a zachowanie, PWN, ed. 3, 2011.
Supplementary literature	D. Lewandowska, J. Orzeł-Gryglewska, E. Jurkowlaniec [Eds]: "Fizjologia zwierząt i człowieka", Wydawnictwo Uniwersytetu Gdanskiego, ed.3, 2019. B.2. Gołąb, B. - "Anatomia czynnościowa ośrodkowego układu nerwowego", PZWL, ed. 3, 2019
eResources addresses	

Example issues/ example questions/ tasks being completed

Work placement

Not applicable

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