

Subject card

Subject name and code	Biological Bases of Body Functions_Lecture, PG_00152012						
Field of study	S_NBP_Biologiczne Podstawy Funkcjonowania Organizmu_Wykład (Wykład)						
Date of commencement of studies	October 2025		Academic year of realisation of subject			2025/2026	
Education level	uniform Master's studies		Subject group			Obligatory subject group in the field of study	
Mode of study	full-time studies		Mode of delivery			at the university	
Year of study	1		Language of instruction			Polish	
Semester of study	1		ECTS credits			3.0	
Learning profile	academic		Assessment form			exam	
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	30.0	0.0	0.0	0.0	0.0	30
	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	30		10.0		40.0	80
Subject objectives	Understanding the importance and course of fundamental life processes of animal and human organisms.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[PSYCHJ5_U02] He/she is able to use and integrate theoretical knowledge in the field of psychology and related disciplines in order to analyse complex psychological, educational, aid or therapeutic problems, as well as diagnose and design practical activities.	[9043] [PSYCHJ5_U02] The student can use and integrate theoretical knowledge in the field of the biological basis of the functioning of the body and related disciplines to analyze the practical tasks performed during classes.	[SU4] test/egzamin - ustny lub pisemny
	[PSYCHJ5_W01] He/she knows the terminology used in psychology and its application in related disciplines at the advanced level.	[6186] [PSYCHJ5_W01] The student knows the terminology used in neurobiology and neurobiopsychology and its application in related disciplines at an advanced level.	[SW4] test/egzamin - ustny lub pisemny
	[PSYCHJ5_U15] He/she is able to formulate opinions about patients, clients and social groups in the context of the profession.	[13403] [PSYCHJ5_U15] The student can identify problems related to the proper functioning of the body.	[SU4] test/egzamin - ustny lub pisemny
	[PSYCHJ5_K04] He/she identifies himself/herself with the values, goals and tasks implemented in psychological practice, he/she is characterized by caution, maturity and commitment to designing, planning and implementing psychological activities.	[9056] [PSYCHJ5_K04] The student identifies with the values, goals, and tasks carried out in the laboratory during exercises on the Biological Fundamentals of the Functioning of the Organism and is characterized by prudence, maturity, and commitment in designing, planning, and implementing individual laboratory experiments.	[SK4] test/egzamin - ustny lub pisemny
	[PSYCHJ5_U11] He/she is able to work in a team performing various roles; he/she knows how to accept and assign tasks, he/she has elementary organizational skills allowing to achieve goals related to designing and undertaking professional activities.	[9052] [PSYCHJ5_U11] The student can work in a team, perform various roles, accept and assign tasks, and have elementary organizational skills, enabling them to achieve goals related to the exercise experience.	[SU4] test/egzamin - ustny lub pisemny
	[PSYCHJ5_W10] Has an in-depth and expanded knowledge of the biological, pedagogical, social and philosophical bases of human mental functioning; understands the nature of functionality and dysfunctionality, harmony and disharmony, norm and pathology.	[9040] [PSYCHJ5_W10] The student has in-depth and extended knowledge of the biological basis of the body's functioning, understands the essence of functionality, and knows the basic disorders related to the improper functioning of the body.	[SW4] test/egzamin - ustny lub pisemny
	[PSYCHJ5_W06] He/she has in-depth knowledge of human development in the life cycle, in biological, psychological and social aspects.	[9036] [PSYCHJ5_W06] The student has in-depth knowledge of the basic biological functioning of humans.	[SW4] test/egzamin - ustny lub pisemny
	[PSYCHJ5_U08] He/she is able to efficiently use selected theoretical approaches to analyse the undertaken practical activities.	[9049] [PSYCHJ5_U08] The student can efficiently use selected theoretical issues in motor function and sensation to perform specific laboratory experiments.	[SU4] test/egzamin - ustny lub pisemny
	[PSYCHJ5_U04] He/she is able to clearly, coherently and precisely express himself/herself orally and in writing in Polish and in a foreign language, he/she has the ability to construct extensive oral and written justifications on topics related to various psychological issues using various theoretical approaches, using the achievements of both psychology and other scientific disciplines.	[9045] [PSYCHJ5_U04] The student can coherently and precisely express himself orally and in writing in Polish and a foreign language about the functioning of the body and can construct extensive oral and written justifications on topics related to various issues related to the functioning of the body.	[SU4] test/egzamin - ustny lub pisemny

	Course outcome	Subject outcome	Method of verification
	[PSYCHJ5_U06] He/she has developed research skills: he/she distinguishes between orientations in the methodology of psychological research, formulates research problems, selects adequate research methods, statistical methods and research tools, constructs research tools; develops, presents and interprets research results, draws conclusions, indicates directions for further research within the selected specialization of psychology.	[9063] [PSYCHJ5_U06] The student has developed research skills: distinguishes orientations in the methodology of neurobiological research, selects appropriate laboratory methods, develops, presents, and interprets research results, and correctly formulates conclusions.	[SU4] test/egzamin - ustny lub pisemny
	[PSYCHJ5_U12] He/she knows the symptoms and causes of selected methods of health assessment as well as the symptoms and causes of selected disorders and lesions to the extent necessary for the studied field of study.	[13400] [PSYCHJ5_U12] The student can identify the symptoms and causes of poor functioning of the body, list selected motor disorders, and independently study the professional literature describing their symptoms and treatment methods.	[SU4] test/egzamin - ustny lub pisemny
	[PSYCHJ5_K01] He/she has deeper awareness of the level of his/her knowledge and skills, he/she understands the need for continuous personal and professional development.	[9053] [PSYCHJ5_K01] The student is aware of his knowledge and skills regarding the biological basis of the body's functioning. He also understands the need for continuous personal and professional development.	[SK4] test/egzamin - ustny lub pisemny
Subject contents	Features of excitable tissue, using skeletal muscle as an example. Skeletal muscle physiology. Electrophysiology and impulse conduction in peripheral nerves. Spinal reflexes. Reflex activities and statokinetic reactions. Behavioral variability in animals. Electrical activity of the brain. Physiology of sensory receptors. Neurohormonal regulation of circulation. Basics of the physiology of breathing and physical exercise. The body's internal environment, the white and red blood cell systems, and coagulation. Human hormonal balance.		
Prerequisites and co-requisites	Knowledge of human biology at the high school level.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	The exam covers material from lectures, the exam is assessed by percentage index ("Regulations of UG Studies"),	51.0%	100.0%
Recommended reading	Basic literature	Literature used during classes: - Gołąb B., Traczyk W. 1997. Anatomia i fizjologia człowieka. Wyd. Ośrodek Doradztwa i Szkolenia, Jaktorów, - Sadowski B. Biologiczne mechanizmy zachowania się ludzi i zwierząt PWN, 2005 - Lewandowska D., Orzeł-Gryglewska J. Fizjologia zwierząt i człowieka przewodnik do ćwiczeń, Wydawnictwo UG, 2009 Literature for independent study by the student: - Lewandowska D., Orzeł-Gryglewska J. Fizjologia zwierząt i człowieka przewodnik do ćwiczeń, Wydawnictwo UG, 2009, - Traczyk W.Z. Fizjologia człowieka w zarysie PZWL, - Górska T., Grabowska A., Zagrodzka J. (red.) 1997. Mózg a zachowanie. Wydawnictwo Naukowe PWN, Warszawa.	

	Supplementary literature	1. Gołąb B., Traczyk W. 1997. Anatomia i fizjologia człowieka. Wyd. Ośrodek Doradztwa i Szkolenia, Jaktorów. 2. Konturek S. Fizjologia człowieka t I Fizjologia ogólna. Krew i mięśnie Wydawnictwo UJ, Kraków 1995, 3. Konturek S. Fizjologia człowieka t IV Neurofizjologia Wydawnictwo UJ, Kraków 1995 4. Sylwanowicz, Michajlik, Ramotowski Anatomia i fizjologia człowieka , PZWL, 2007
	eResources addresses	
Example issues/ example questions/ tasks being completed	1. Differences in the structure of smooth and skeletal muscles, 2. Electrophysiology, 3. Extrapyramidal system.	
Work placement	Not applicable	

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