

Subject card

Subject name and code	Animal and human physiology, PG_00154401						
Field of study	Biology						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2025/2026		
Education level	undergraduate studies		Subject group		Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
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				
Conducting unit	Faculty of Biology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Jolanta Orzeł-Gryglewska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	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		6.0		14.0	50
Subject objectives	1. Learning about basic life processes, in particular the mechanisms of their regulation and integration in animal and human organisms. 2. Practical acquaintance with basic physiological phenomena, methods of their research and demonstration, respecting the principles of bioethics. 3. Acquiring laboratory group work competences and the ability to independently deepen and transfer knowledge.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLL3_K03] The graduate will be able to organise the work of a small team and work effectively as part of a team	The student is able to organize the work of a small team and demonstrates the ability to work effectively in a team when preparing a preparation, carrying out an experiment, drawing conclusions and preparing a report.	[SK8] observation of student's independent or team work
	[BIOLL3_K07] The graduate is prepared to apply the principles of bioethics consciously	The student consciously applies the principles of bioethics in experiments on living vertebrates.	[SK1] oral statement/conversation/discussion
	[BIOLL3_U01] The graduate will be able to use basic apparatus and research tools and follow the correct sequence of operations in laboratory and field work	- The student uses equipment for recording physiological functions and typical laboratory equipment and maintains the correct sequence of activities in laboratory work	[SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	[BIOLL3_U02] The graduate will be able to make observations individually and in teams, and carry out basic physical, biological and chemical measurements in the field or laboratory	The student maintains the correct sequence of activities in laboratory work, observes physiological processes and performs basic measurements in the field of medical analytics in the laboratory.	[SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	[BIOLL3_W16] The graduate knows and understands the relationship between the achievements of the chosen field of science and discipline of natural sciences and the possibilities of their use in socio-economic life, taking into account the sustainable use of biodiversity	The student explains the connections between the achievements of physiology and neurobiology and the possibilities of their use in medicine and health prevention.	[SW1] oral statement/conversation/discussion
	[BIOLL3_U07] The graduate should be able to independently search for and use available sources of biological information, including electronic sources	The student independently searches for and uses available sources of biological information, including electronic sources, especially when preparing presentations and "entry tickets".	[SU2] presentation/project/paper/report
	[BIOLL3_W04] The graduate is conversant with the course of physiological processes and their relationship to the adaptation of the organism to changing environmental conditions	The student demonstrates the relationship between the intensity of specific physiological processes in animals and the adaptation of the body to changing environmental conditions	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report [SW3] text preparation/written work
	[BIOLL3_W03] The graduate knows the structure and functional relationships at the cellular, tissue, organ and organismal levels	The student describes the physiological processes occurring in the animal and human body, including the mechanisms of their regulation at the cellular, organ and organismal level.	[SW1] oral statement/conversation/discussion [SW3] text preparation/written work
Subject contents	Learning methods for recording and visualizing physiological processes in animals and humans. Observation of muscle spasms, symptoms of muscle fatigue. Basics of electrophysiology. Features of reflex activity. Neurological reflexes in humans. Brain stem functions and symptoms of its damage. ECG and blood pressure recording. Exercise tests in humans. Red- and white-cell system, determination of blood groups. Hemostasis and mechanisms blood clotting. Familiarization with the methodology of selected clinical tests and medical laboratory techniques.		
Prerequisites and co-requisites	basic knowledge of human anatomy		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		51.0%	20.0%
		51.0%	55.0%
		51.0%	15.0%
		51.0%	10.0%
Recommended reading	Basic literature	Lewandowska D., Orzeł-Gryglewska J., Jurkowlaniec E. 2019. Fizjologia zwierząt i człowieka, Wydawnictwo Uniwersytetu Gdańskiego. Ganong W. F., 2007. Fizjologia. Wydawnictwo Lekarskie PZWL, Warszawa. Felten D.L. Józefowicz R. 2007. Atlas neuroanatomii i neurofizjologii Nettera. Urban & Partner, Wrocław. Konturek S. J. 2007. Fizjologia człowieka. Podręcznik dla studentów medycyny. Elsevier Urban & Partner, Wrocław	
	Supplementary literature	Traczyk W., Trzebski A. 2015. Fizjologia człowieka z elementami fizjologii stosowanej i klinicznej. PZWL, Warszawa.	
	eResources addresses	Adresy na platformie eNauczanie:	

Example issues/ example questions/ tasks being completed	Types of muscle contractions. Preparation and analysis of an ECG recording. Blood pressure measurement. Measurement of lung volume and capacity. Blood count. Blood clotting. Blood groups.
Work placement	Not applicable

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