

Subject card

Subject name and code	Animal and human physiology, PG_00203423						
Field of study	Medical Biology						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2026/2027		
Education level	Bachelor's 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	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		3.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Department of Animal and Human Physiology -> Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Ziemowit Ciepielewski				
	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		4.0		41.0	75
Subject objectives	1. Practical acquaintance with basic physiological phenomena, methods of their study and demonstration with respect for the principles of bioethics. 2. To acquire the competence of laboratory group work and the ability to deepen and transfer knowledge independently.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLMEDL3_W04] has advanced knowledge of medical biology and its latest developments, and is familiar with and understands issues related to the role of medical biology in human health care	student knows the terminology of health sciences in physiology and pathophysiology	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report [SW3] text preparation/written work
	[BIOLMEDL3_K01] is aware of the importance of lifelong learning and keeping up to date with developments in medical biology and related disciplines, and applies this knowledge to the planning and design of professional activities	student understands the need for lifelong learning and updating knowledge in animal and human physiology and related disciplines	[SK1] oral statement/conversation/ discussion
	[BIOLMEDL3_U10] learns independently and in a focused manner, and is able to set priorities and organise the work of a small team, as well as work effectively within a team	student is able to prioritize and organize the work of a small team and work effectively as part of a team, especially when performing experiments on animals, making a report and presentation	[SU2] presentation/project/paper/ report [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	[BIOLMEDL3_U01] is able to use and operate basic research equipment and tools employed in molecular-biochemical analysis or neurobiology and, following the correct sequence of steps, carries out simple physical, biological or chemical observations and measurements in laboratory work in the field of biological or medical sciences	student uses basic apparatus and typical laboratory equipment to record physiological processes, maintaining the correct sequence of operations in laboratory work	[SU6] demonstration of practical skills
	[BIOLMEDL3_W07] has advanced knowledge of methods for assessing health status, as well as the symptoms and causes of selected disorders and pathological changes; understands the basics of a healthy lifestyle and is able to explain and promote them	student has advanced knowledge of clinical and medical examination methods, as well as symptoms and causes of selected disorders and lesions	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report [SW3] text preparation/written work
	[BIOLMEDL3_W02] has an advanced knowledge and understanding of the structure of the animal or human body, processes and functional relationships at the cellular, tissue, organ and organismal levels, as well as physiological and biochemical processes at an advanced level, and the mechanisms of the pathophysiology of diseases, and explains their relationship with behaviour and the organism's	student describes the physiological processes occurring in animal and human organisms taking into account the mechanisms of their regulation at the cellular, organ and organismal levels and demonstrates the relationship of these physiological processes to the adaptation of organisms to changing environmental conditions	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report [SW3] text preparation/written work
	[BIOLMEDL3_U04] synthesises data from different sources and draws appropriate conclusions from them	student synthesizes data from a variety of sources and draws conclusions on this basis, especially when preparing a report and presentation	[SU2] presentation/project/paper/ report
Subject contents	Learning methods of recording and visualizing physiological processes in animals and humans. Observation of muscle contractions, signs of muscle fatigue. Basics of electrophysiology. Features of reflex activity. Functions of the brainstem and symptoms of its damage. Recording of ECG and blood pressure. Exercise testing in humans. Red and white blood cell system, determination of blood groups. Hemostasis and mechanisms of blood coagulation. 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
	tests/colloquia	51.0%	55.0%
	entrance checks	51.0%	20.0%
	presentation/essay	51.0%	10.0%
	report	51.0%	15.0%

Recommended reading	Basic literature	A. Literature required for final course credit (passing the laboratory exercises): A.1. used during the classes Lewandowska D., Orzeł-Gryglewska J., Jurkowlaniec E. 2019 Animal and human physiology. University of Gdansk Publishing House A.2. studied independently by the student Ganong W. F., 2007. Physiology. PZWL Medical Publishing , Warsaw Konturek S. J. 2007. Human physiology. Textbook for medical students. Elsevier Urban & Partner, Wrocław
	Supplementary literature	B. Supplementary literature Sadowski B. 2005. Biological mechanisms of human and animal behavior. PWN, Warsaw. Brodal Per 2004. The central nervous system. Structure and function. Oxford University Press. Konturek S. J. Netter's Atlas of human physiology. 2005. Urban & Partner Medical Publishing House, Wrocław.
	eResources addresses	
Example issues/ example questions/ tasks being completed	1. Stages of blood clotting. 2.Heart cycle. 3.The prioprioreceptive reflex.	
Work placement	Not applicable	

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