

Subject card

Subject name and code	Physiology, PG_00207536						
Field of study	Medical Physics						
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	1		ECTS credits		2.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Faculty of Mathematics, Physics and Informatics -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Magdalena Wszędybył-Winklewska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	20.0	0.0	0.0	0.0	0.0	20
	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	20		0.0		30.0	50
Subject objectives	1. Understanding the structure and function of the human body. 2. Comprehending the physiological processes occurring in the human body. 3. Ability to logically present the vital functions of the human organism.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[FIZMEDL3_W06] Knows and understands at an advanced level key concepts of human anatomy and physiology, with a particular focus on the physical aspects of biological systems.		The student: Knows the basic physiological processes occurring in the human body. Knows the fundamental anatomical structure of individual organs.		[SW4] test/exam - oral or written		
Subject contents	Basic knowledge of human vital functions. Homeostasis. Characteristics of skeletal muscles, smooth muscles, and cardiac muscle. Sensation, movement, perception. Brain activation, sleep, wakefulness. Higher-order functions of the nervous system. Physiology of the heart, ECG (Electrocardiogram). Vascular system; hemodynamics and autoregulation of tissue blood flow. Physiology of the respiratory system; mechanics and regulation of breathing. Pulmonary circulation and gas exchange. Physiology of the kidneys. Digestive system. Physiology of the hematopoietic system, blood groups. Metabolism. Autonomic nervous system. Physiology of internal secretion (hormones).						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	exam		51.0%		100.0%		

Recommended reading	Basic literature	A.1. wykorzystywana podczas zajęć 1. A. Michajlik : Anatomia i fizjologia człowieka; 2. W. Traczyk: Fizjologia człowieka w zarysie; 3. W. Ganong : Fizjologia, podstawy fizjologii lekarskiej; 4. Netter: Atlas fizjologii człowieka; 5. J. Konturek : Fizjologia człowieka A.2. studiowana samodzielnie przez studenta Wskazane przez wykładowcę prace w formie publikacji
	Supplementary literature	Selected articles on physiology in medical journals.
	eResources addresses	
Example issues/ example questions/ tasks being completed	not applicable	
Work placement	Not applicable	

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