

**Subject card**

<b>Subject name and code</b>	Physiology, PG_00182137						
<b>Field of study</b>	Medical Physics						
<b>Date of commencement of studies</b>	October 2026	<b>Academic year of realisation of subject</b>			2026/2027		
<b>Education level</b>	Bachelor's studies	<b>Subject group</b>			Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	1	<b>Language of instruction</b>			Polish		
<b>Semester of study</b>	1	<b>ECTS credits</b>			2.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>			credit		
<b>Conducting unit</b>	Faculty of Mathematics, Physics and Informatics -> Rector						
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr Magdalena Wszędybył-Winklewska				
	<b>Teachers</b>						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	20.0	0.0	0.0	0.0	0.0	20
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	<b>Number of study hours</b>	20		0.0		30.0	50
<b>Subject objectives</b>	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.						
<b>Learning outcomes</b>	<b>Course outcome</b>		<b>Subject outcome</b>			<b>Method of verification</b>	
	[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	
<b>Subject contents</b>	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).						
<b>Prerequisites and co-requisites</b>							
<b>Assessment methods and criteria</b>	<b>Subject passing criteria</b>		<b>Passing threshold</b>			<b>Percentage of the final grade</b>	
	exam		51.0%			100.0%	

Recommended reading	Basic literature	<p>A.1. wykorzystywana podczas zajęć</p> <ol style="list-style-type: none"> <li>1. A. Michajlik : Anatomia i fizjologia człowieka;</li> <li>2. W. Traczyk: Fizjologia człowieka w zarysie;</li> <li>3. W. Ganong : Fizjologia, podstawy fizjologii lekarskiej;</li> <li>4. Netter: Atlas fizjologii człowieka;</li> <li>5. J. Konturek : Fizjologia człowieka</li> </ol> <p>A.2. studiowana samodzielnie przez studenta Wskazane przez wykładowcę prace w formie publikacji</p>
	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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