

Subject card

Subject name and code	Essentials of anatomy and physiology, PG_00082089						
Field of study	Chemistry						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Optional subject group 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		exam		
Conducting unit	Faculty of Chemistry -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Beata Ludkiewicz				
	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		5.0		40.0	75
Subject objectives	The student after completing the course should: have mastered basic information from descriptive anatomy and anatomical denominations. Should also know the structure of a human being in a living subject, and be able to connect organ building with their basic activity.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[CHEML3_W01] Enumerates basic laws and theories in chemistry, physics, mathematics and biology.	The student learns the structure of the human body along with its functional aspects, understands the basis of pathological changes ongoing within individual systems and organs. The student learns the structure of bones and their connections. The student learns the general structure and functions of the musculoskeletal system, circulatory system and peripheral nervous system. The student is also acquainted with the structure and functions of organs of the respiratory, digestive and genitourinary systems.	[SW4] test/exam - oral or written
	[CHEML3_W05] Has basic knowledge of the chemical specialisation studied.	The student learns the structure of the human body along with its functional aspects, understands the basis of pathological changes ongoing within individual systems and organs. The student learns the structure of bones and their connections. The student learns the general structure and functions of the musculoskeletal system, circulatory system and peripheral nervous system. The student is also acquainted with the structure and functions of organs of the respiratory, digestive and genitourinary systems.	[SW4] test/exam - oral or written
Subject contents	1. Bone-joint system - limb skeleton. Division and mechanics of joints. 2. Muscular system. Mechanism of muscle work. 3. Spine and chest - axial skeleton and mm. trunk. Mechanics of breathing. 4. Peripheral nervous system - spinal nerve. Conduction of the nervous impulse. 5. Circulation I - heart. Heart cycle. Starling's law. 6. Circulatory system II - peripheral vessels. Spleen, lymphatic system. Portal circulation. 7. Respiratory system - upper and lower respiratory tract. Gas exchange. 8. Digestive system - food spool. The mechanism of peristaltic wave formation. 9. Digestive system - big glands. Liver and pancreas - bile, digestive enzymes. 10. Genito-urinary system. Urinary excretion. The renin-angiotensin-aldosterone system. 11. Endocrine system hormones. 12. Autonomic nervous system. A skin and its creations. 13. Head - skull, sinus venous dura, expressive muscles, rumen muscles, tongue. 14. Organs of the senses - eye, ear, smell, taste. 15. Central nervous system - storied construction. Localization of centers in the forebrain. Spinal cord - internal structure.		
Prerequisites and co-requisites	Biology knowledge of secondary school level		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	written exam	51.0%	100.0%
Recommended reading	Basic literature	Literature required to pass the cours Sokołowska-Pituchowa J.: Anatomia człowieka. PWZL, Warszawa wyd. po 1988 Yokochi C., Rohen J,: Fotograficzny atlas anatomii człowieka. PZWL Warszawa 2004	
	Supplementary literature	not applicable	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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