

Subject card

Subject name and code	Fundamentals of human physiology, PG_00188285						
Field of study	Podstawy fizjologii człowieka (Wykład)						
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		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish Polish		
Semester of study	2		ECTS credits		2.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Laboratory of Bionanotechnology -> Department of Molecular Biotechnology -> Faculty of Chemistry -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Agnieszka Żylicz-Stachula				
	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		15.0	50
Subject objectives	The aim of the course is to introduce students to the fundamental principles of human physiology and the functioning of major organ systems in the context of biochemical and physicochemical processes occurring in living organisms. The course focuses on the relationships between physiological mechanisms and their chemical basis, as well as on the significance of these processes in the analysis of biological material in forensic investigations. Students will acquire knowledge essential for understanding physiological changes in the human body under the influence of external factors (e.g. toxins, psychoactive substances, environmental conditions).						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[AKRL3_U01] The graduate is able to identify, analyse and solve complex research problems in chemistry and forensic science by selecting appropriate methods and information sources.		Student can critically read and interpret literature in the field of human physiology and pathophysiology. Student can analyze and interpret physiological phenomena in the context of chemical and biological examinations of forensic materials. Student understands the importance of physiological knowledge for the responsible and reliable conduct of forensic and analytical research.		[SU1] wypowiedź ustna/rozmowa/ dyskusja [SU4] test/egzamin - ustny lub pisemny		
	[AKRL3_W01] The graduate knows and understands, at an advanced level, the laws and theories in the field of chemistry, as well as the basics of biology, mathematics and law constituting general knowledge in the scientific disciplines forming the theoretical foundations relevant to the study program.		Student knows and understands the basic physiological processes occurring in the human body as well as their chemical and biochemical foundations. Student knows the principles of functioning of major organ systems and understands their interrelationships in maintaining homeostasis.		[SW4] test/egzamin - ustny lub pisemny		

Subject contents	Introduction to human physiology. Cell physiology. Physiology of regulatory systems: nervous and endocrine. Mechanisms of addiction and the effects of psychoactive substances. Functions of blood and the circulatory system. Physiology of the respiratory, digestive, urinary, and musculoskeletal systems. Physiology of stress and the effects of external factors.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	test	51.0%	100.0%
Recommended reading	Basic literature	T. Brzozowski (red.). Fizjologia człowieka. Konturek; Edra Urban & Partner, Wrocław, 2019	
	Supplementary literature	J. Lewin-Kowalik (red.) Fizjologia człowieka. Podręcznik dla studentów kierunków medycznych. Edra Urban & Partner, Wrocław, 2024	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Psychoactive substances such as amphetamine or cocaine primarily act by: A. Inhibiting conduction in neural synapses B. Increasing the release of neurotransmitters, such as dopamine C. Lowering blood glucose levels D. Blocking pain receptors in the skin		
Work placement	Not applicable		

Document generated electronically. Does not require a seal or signature.