


**KAPITAŁ LUDZKI**  
 NARODOWA STRATEGIA SPÓJNOŚCI

 Projekt współfinansowany przez  
 Unię Europejską w ramach  
 Europejskiego Funduszu  
 Społecznego

**UNIA EUROPEJSKA**  
 EUROPEJSKI  
 FUNDUSZ SPOŁECZNY


<b>Course title</b>		<b>ECTS code</b>	
Essentials of anatomy and physiology		13.3.0475	
<b>Name of unit administrating study</b>			
Faculty of Chemistry			
<b>Studies</b>			
<b>faculty</b>	<b>field of study</b>	<b>type</b>	pierwszego stopnia
Wydział Chemii	Chemia	<b>form</b>	stacjonarne
		<b>specjalty</b>	chemia biomedyczna, chemia kosmetyków
		<b>specialization</b>	wszystkie
<b>Teaching staff</b>			
dr Beata Domaradzka-Pytel; dr hab. Beata Ludkiewicz			
<b>Forms of classes, the realization and number of hours</b>		<b>ECTS credits</b>	
<b>Forms of classes</b>		3	
Lecture		classes - 30 h	
<b>The realization of activities</b>		tutorial classes – 5 h	
classroom instruction		student's own work – 40 h	
<b>Number of hours</b>		Total: 75 h - 3 ECTS	
Lecture: 30 hours			
<b>The academic cycle</b>			
2022/2023 summer semester			
<b>Type of course</b>		<b>Language of instruction</b>	
obligatory		polish	
<b>Teaching methods</b>		<b>Form and method of assessment and basic criteria for evaluation or examination requirements</b>	
		<b>Final evaluation</b>	
		Examination	
		<b>Assessment methods</b>	
		written exam with open questions	
		<b>The basic criteria for evaluation</b>	
		The student gets a positive grade on the basis of at least 51% of possible points from the written exam.	
<b>Method of verifying required learning outcomes</b>			
<b>Required courses and introductory requirements</b>			
<b>A. Formal requirements</b>			
none			
<b>B. Prerequisites</b>			
Biology – knowledge of secondary school level			
<b>Aims of education</b>			
<p>Skills and competences: The purpose of teaching the basics of anatomy and physiology is to familiarize the student with the structure of the human body and its functional aspects. Understanding the correct structure of the organism determines the understanding of the underlying pathological changes taking place within individual systems and organs. Students learn the structure of bones and their connections. The next stage of learning is to learn about the general structure and functions of the musculoskeletal system, circulatory system and peripheral nervous system, so that you can then start anatomy classes in a topographical system. Understanding the structure and function of the organs of the respiratory, digestive and genitourinary systems allows for a detailed look into the human body and also allows you to get acquainted with the spatial arrangement of organs in specific parts of the body. Classes in the subject ends with a team of issues in the macroscopic and functional anatomy of the central nervous system.</p> <p>The student after completing the course should: have mastered basic information from descriptive anatomy and anatomical denominations. Should</p>			

<p>also know the structure of a human being in a living subject, and be able to connect organ building with their basic activity.</p>	
<p><b>Course contents</b></p> <p>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.</p>	
<p><b>Bibliography of literature</b></p> <p>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</p>	
<p><b>The learning outcomes (for the field of study and specialization)</b></p>	<p><b>Knowledge</b></p> <p>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.</p>
	<p><b>Skills</b></p> <p>The student has a basic knowledge of descriptive anatomy and anatomical denominations, knows the structure of a human being in a living subject, and can connect organs with their basic activity.</p>
	<p><b>Social competence</b></p> <p>Understands the need for continuous training and personal development</p>
<p><b>Contact</b></p> <p>bdp@gumed.edu.pl</p>	