

<b>Course title</b> Podstawy anatomii i fizjologii / Essentials of anatomy and physiology		<b>ECTS code</b> 13.3.0475	
<b>Name of unit administrating study</b> Faculty of Chemistry			
<b>Studies</b>			
<b>Field of study</b>	<b>Type</b>	<b>Form</b>	
Chemistry	Bachelor	Full-time studies	
<b>Teaching staff</b> Dr n. med. Beata Domaradzka-Pytel			
<b>Forms of classes, the realization and number of hours</b>		<b>ECTS credits</b> 3	
<b>A. Forms of classes, in accordance with the UG Rector's regulations</b> lecture		classes - 30 h tutorial classes – 5 h student's own work – 40 h	
<b>B. The realization of activities</b> in-class learning		Total: 75 h - 3 ECTS	
<b>C. Number of hours</b> 30 h lecture			
<b>The academic cycle</b> First year, summer semester			
<b>Type of course</b> obligatory		<b>Language of instruction</b> Polish	
<b>Teaching methods</b>  Lecture with multimedia presentation		<b>Form and method of assessment and basic criteria for evaluation or examination requirements</b>	
		<b>A. Final evaluation, in accordance with the UG study regulations</b> exam	
		<b>B. Assessment methods</b> written exam with open questions (tasks)	
		<b>C. The basic criteria for evaluation or exam requirements</b>  The student gets a positive grade on the basis of at least 51% of possible points from the written exam.	
<b>Required courses and introductory requirements</b> Biology – knowledge of secondary school level			
<b>Aims of education</b> 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. 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.			
<b>Course contents</b>  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.

#### **Bibliography of literature**

##### **A. Literature required to pass the course**

Sokołowska-Pituchowa J.: Anatomia człowieka. PWZL, Warszawa wyd. po 1988 Yokochi C., Rohen J.: Fotograficzny atlas anatomii człowieka. PZWL Warszawa 2004

##### **B. Extracurricular readings**

#### **Knowledge**

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.

#### **Skills**

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.

#### **Social competence**

Understands the need for continuous training and personal development