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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Medicine |
| **GENERAL INFORMATION** |
| Study program  | **INTEGRATED ACADEMIC STUDIES OF PHARMACY** |
| Study Module (if applicable) |  |
| Course title | PHYSIOLOGY |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [x]  Obligatory [ ]  Elective |
| Semester  |  [x]  Autumn [x] Spring |
| Year of study  | II |
| Number of ECTS allocated | 14 |
| Name of lecturer/lecturers | Mirjana Radenković, Full ProfessorSlavimir Veljković, Full ProfessorSuzana Branković, Associate ProfessorDragana Veličković, Associate ProfessorMilkica Nešić, Full ProfessorMilan Ćirić, Assistant ProfessorNenad Stojiljković, Assistant ProfessorVoja Pavlović, Assistant ProfessorPavle Ranđelović, Teaching Assistant Marija Gočmanac Ignjatović, Teaching Assistant Sonja Ilić, Teaching Assistant Milica Veljković, Teaching Assistant  |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [x] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Teaching in the course Physiology should provide students with: knowledge about the functions of organs, organ systems and the whole human body that is significant for pharmaceutical profession homeostasis regulating mechanisms, type of receptors and secondary messengers through which control systems realise their role interaction of various functional systems via common control mechanisms, provide theoretical base for attending other courses (pathophysiology, pharmacology, medical biochemistry etc.). After completion of this course, the students are expected to:know a particular part of medical nomenclature, explain the functioning of particular organs, know and understand integrated functions of several individual organs and the role of control mechanisms, know the role of individual receptor types and effects of their modulation, know the principles of normal functions so that in case of dysfunction they could maintain homeostasis of the whole body with particular products. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Introduction to physiology.Physiology of the excitable tissues - Resting membrane potential, Action potential, Action potential transmission, Physiology of skeletal muscle, Physiology of smooth musclesPhysiology of the cardiovascular system - Morphofunctional characteristics of the heart. Bioelectrical activity of the heart. Rhythmical excitation of the heart. Heart regulation.Physiology of blood circulation - Physical properties of circulation. Blood pressure. Pulse. Local control of blood flow. Microcirculation. Regulation of circulation. Kidneys and body fluid - Body fluid compartments. Glomerular filtration. Creation of final urine.Physiology of respiration - Mechanics of lung ventilation, Respiratory membrane, Transport of gases, Regulation of breathingPhysiology of the blood - General properties of the blood. Erythrocytes. Leukocytes Physiological basis of hemostasis and coagulation. System of blood groups. Immune system physiology.Physiology of the digestive tract - Physiology of mastication, Physiology of mastication, Swallowing, Vomiting, Transport and mixing of food in the digestive tract. Secretions in the digestive tract. Digestion. Absorption.Overview and functions of the liverRegulation of matter and energy exchangeVitaminsPhysiology of the endocrine system - Hormones. Endocrine role of hypothalamus. Hypophysis. Thyroid gland. Parathyroid gland. Endocrine pancreas. Hormones of the adrenal cortex and medulla. Sex hormonesNervous system - Spinal cord, Medulla oblongata and pons, Midbrain, Small brain, Interbrain, Hypothalamus. Vegetative nervous system, Limbic system and behavior, Basal ganglia. Brain cortex. Senses, Senses of hearing and balance, Sense of vision, Senses of smell and taste. Perception of pain.Physiology of sports |
| **LANGUAGE OF INSTRUCTION** |
| [x] Serbian (complete course) [x]  English (complete course) [ ]  Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)[x] Serbian with English mentoring [ ] Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** | **2** | **Written examination** | **44** |
| **Practical teaching** | **4** | **Oral examination** | **50** |
| **Teaching colloquia** |  | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |