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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** | Faculty of Medicine |
| **GENERAL INFORMATION** |
| Study program  | **INTEGRATED ACADEMIC STUDIES OF MEDICINE** |
| Study Module (if applicable) |  |
| Course title | Neurosciences |
| Level of study | ☒Bachelor ☒ Master’s ☐ Doctoral |
| Type of course | ☐ Obligatory☒ Elective |
| Semester  | ☐ Autumn ☒Spring |
| Year of study  | III |
| Number of ECTS allocated | 4 |
| Name of lecturer/lecturers | Milkica Nešić, Full ProfessorIvan Nikolić, Full ProfessorVerica Avramović, Full ProfessorMirjana Radenković, Full ProfessorZoran Perić, Full ProfessorIvana Stojanović, Full ProfessorSuzana Branković, Associate ProfessorMiroslava Živković, Full ProfessorStojanka Arsić, Associate ProfessorDragana Veličković, Associate ProfessorSnežana Pavlović, Full Professor Mirjana Spasić, Full ProfessorIvan Stefanović, Full ProfessorJulijana Nikolić-Popović, Associate ProfessorSnežana Manojlović, Assistant ProfessorSrđan Pešić, Full ProfessorVoja Pavlović, Assistant ProfessorGordana Đorđević, Assistant Professor Stevo Lukić, Assistant Professor Dejan Savić, Assistant Professor Sonja Ilić, Teaching AssistantPavle Ranđelović, Teaching Assistant Braca Kundalić, Teaching Assistant Miljana Pavlović, Teaching Assistant Srđan Ljubisavljević, Teaching Assistant  |
| Teaching mode | ☒ Lectures ☐Group tutorials ☐ Individual tutorials☒Laboratory work ☐ Project work ☒ Seminar☐Distance learning ☐ **Blended learning** ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| The aim of the course is to provide students with an insight into the interdisciplinarity of the research of nervous processes, through fundamental and applied approaches, which enables an easier monitoring and understanding of behavior, neurologic and psychiatric diseases, as well as their treatment. Such a wide concept provides medical students with a possibility to approach a problem with multiple levels of analysis, from molecules to behavior and enables the understanding of complex neurobiological processes of the nervous system and the development of neurologic and psychiatric disorders. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **I Introduction** Neuroscience - a historical overview, Organization of the nervous system**II Cellular and Molecular Neuroscience** The development of the nervous system, The elimination of synapses and apoptosis, Bioelectrical characteristics of neurons, Diseases of the neuromuscular transmission, The energy metabolism of the brain**III Vascularization of the nervous system and disorders of the circulation** Vascularization of the nervous system, Physiology of cerebral circulation, Circulatory disorders**IV Organization of the sensory systems**Anatomy of sensitive projections, Physiology of perception and pain, Anatomy of the brain stem, The sense of hearing and balance, Sensitive syndromes. The damage to the brain stem, Vision, The most common vision disorders**V The organization of the motor system**Motor system, Motility disorders, Surgical therapy of parkinsonism, chronic pain, spasticity and neoplasms**VI Cognitive and affective neuroscience**Anatomy of telencephalon, Physiology of learning and memory, Circadian rhythms, Neuroimmunomodulation and stressNeurophysiology of addiction, The interaction of the neurophysiological, neurochemical and behavioral correlates of the expression of anxiety, affective disorders and schizophrenia, Psychopharmacological therapy |
| **LANGUAGE OF INSTRUCTION** |
| ☒Serbian (complete course) ☒ English (complete course) ☐ Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)☐Serbian with English mentoring ☐Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** | **15** | **Written examination** | **30** |
| **Practical teaching** | **15** | **Oral examination** |  |
| **Teaching colloquia** | **40** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |