University of Niš Faculty of Medicine

Study program: INTEGRATED ACADEMIC STUDIES OF MEDICINE

ACCREDITATION 2018

Course: Neuroscience		
Course head: prof. dr Nenad Stojiljković		
Course status:	Elective	
Semester: VI	Study year:	
ECTS: 4	Course code: M-III-20.v	

Course purpose:

The purpose of the course is to present to the students the interdisciplinary nature of research of nervous processes through both fundamental and applied approaches, enabling easier attendance and better understanding of behaviors, neurologic and psychiatric diseases, as well as their treatment.

Course outcome: (knowledge, skills, attitudes)

Such a broad concept offers to the students the possibility of approach to a problem at multiple levels of analysis, from molecules to behaviors, enabling better understanding of complex neurobiological processes in the nervous system and complex neurologic and psychiatric disorders.

Nr. of classes of active teaching: 45

Lectures: 30 Practice: 15

Course content

Theoretical teaching

The course involves a broad interdisciplinary approach in consideration of various aspects of normal function and disorders of the nervous system. Some fundamental issues of neuroanatomy, neurohistology, neurochemistry, neurophysiology are being considered, as well as the clinical aspects of nervous system disorders, through various neurologic and psychiatric disorders and topics such as electrophysiology of excitable tissues, action of neurotransmitters and integration of events at the synaptical level, development of the nervous system, regulatory processes, learning, memory, and plasticity of the nervous system, psychoneuroendocrine and neuroimmune aspects of stress, neurophysiologic and biochemical basis of behavior and behavioral disorders.

Practical teaching

Knowledge of regional neuroanatomy and neurophysiology of a system provides a basis for better understanding of behavior, from simple aspects such as the stretching reflex, to much more complex behaviors such as language and consciousness. Students get an insight into the treatment options for nervous system disorders through the consideration of principles of action of neuropharmaceuticals, and also neurosurgical possibilities in the treatment of Parkinsonism, spasticity, pain, cerebrovascular diseases and neoplastic syndrome

Sem		
	Topics of the seminar papers are defined at the beginning of the course and	
	cover the contents of practical teaching.	

Recommended literature:

1. J.E. Hall, Guyton i Hall: Medicinska fiziologija, 13. Izdanje, DATA Status, 2019.

Teaching methods:

- Interactive theoretical and practical teaching
- Consultations
- Seminar papers

Required previously passed exams:

None

Grade:

Pre-exam obligations

■ Attendance and activity at lectures: 0 – 15 points

■ Activity at practice classes: 0 – 15 points

Final exam

■ Written exam: 0 – 70 points