

<b>Name of the course</b>	<b>Neurology</b>		<b>Code</b>	MSE404
<b>Type of study program:</b>	Integrated university study program, Medicine		<b>Year of study:</b>	4
<b>Credits (ECTS):</b>	6	<b>Semester:</b>	VIII	<b>Number of hours per semester (l+s+e)</b> 90 (24+23+43)
<b>Status of the course:</b>	obligatory	<b>Preconditions:</b>	Passed all exams of the 3 <sup>rd</sup> year	<b>Comparative conditions:</b> /
<b>Access to course:</b>	Fourth year students		<b>Hours of instructions:</b>	According to schedule
<b>Course teacher:</b>	Ass. Prof. Nataša Pejanović-Škobić, MD, PhD			
<b>Consultations:</b>	As agreed with students			
<b>E-mail address and phone number:</b>	<a href="mailto:natasa.pejanovic@gmail.com">natasa.pejanovic@gmail.com</a> , <a href="mailto:natasa.pejanovic@mef.sum.ba">natasa.pejanovic@mef.sum.ba</a> +387 63 297 971, +387 63 319 593			
<b>Associate teachers</b>	Assistant Professor IngeKlupka-Sarić, MD, PhD, neurologist Assistant Professor Nikolina Pravdić, MD, PhD, neurologist Assistant Davor Batinić, MD, MSc, neurologist Assistant Marija Bender, MD, MSc, neurologist Professor Silvio Bašić, MD, PhD, neurologist (Zagreb, Croatia) Professor Anđelko Vrca, MD, PhD, neurologist (Zagreb, Croatia)			
<b>Consultations:</b>	As agreed with students			
<b>E-mail address and phone number:</b>	<a href="mailto:ingeklupkasaric@skbm.ba">ingeklupkasaric@skbm.ba</a> , <a href="mailto:nikolinavladic@yahoo.com">nikolinavladic@yahoo.com</a> , <a href="mailto:dbatinic1234@gmail.com">dbatinic1234@gmail.com</a> , <a href="mailto:marijabender@yahoo.com">marijabender@yahoo.com</a> , <a href="mailto:sbasic@kdb.hr">sbasic@kdb.hr</a> , <a href="mailto:avrca1715@net.hr">avrca1715@net.hr</a>			
<b>The aims of the course:</b>	<b>The aims of the course are</b> to achieve knowledge of the fundamental principles of neurology, expand knowledge and skills needed to understand pathophysiological mechanisms, clinical symptoms, differential diagnostic conclusions, critical evaluation of laboratory findings, and rational treatment of the most common neurological diseases, as well as to acquaint students with the symptoms and signs of nervous system dysfunction and the basic neurological methods and techniques for checking nervous system function and confirming dysfunction.			
<b>Learning outcomes (general and specific competences):</b>	<u>General outcomes</u> <ul style="list-style-type: none"> <li>To be able to plan independent learning through study in a way of critical and self-critical questioning of scientific truths</li> <li>To demonstrate possession of personal qualities (teamwork and personal contribution, interest, active listening and building of positive relationships with group members)</li> </ul> <u>Specific outcomes</u> <ul style="list-style-type: none"> <li>To enable students to perform a complete neurological examination of the patient and to be able to recognize the signs of impaired neurological functions</li> <li>To enable students to distinguish the signs and symptoms of central and peripheral nervous system disorders</li> <li>To enable students to distinguish motor disorders from sensory disorders within the central nervous system, and to distinguish the signs of pyramidal and extrapyramidal motor disorders within the motor system</li> <li>To enable students to examine each individual quality of sensation, within the signs of disorders of the sensory system</li> <li>To enable students to examine the disorders of autonomic and higher nervous functions</li> <li>To enable students to recognize emergencies in neurology and to be able to correctly apply the recommended methods and procedures for acting in emergencies in neurology</li> <li>To enable students to use and explain findings from specific neurological methods and procedures in confirming and ruling out nervous system disorders</li> </ul>			

<b>Course content (Syllabus):</b>	Neurology course consists of lectures, seminars and practical exercises. Testing of knowledge is done by preliminary exam (examination of the neurological patient), written and oral final exam.			
<b>Format of instruction (mark in bold)</b>	<b>Lectures</b>	<b>Exercises</b>	<b>Seminars</b>	Independent assignments
	<b>Consultations</b>	Work with mentor	Field work	Other
<b>Student responsibilities</b>	Students need to prepare actively for participating in seminars and practicals. Presence on the lectures, seminars and practicals is obligatory. Student can miss only 20% of the selected topics (reasonable grounds). After finishing the course students have to gather signature of the Course leader / Chair of the Department in Index (before written exam) as prove they have finished the Course and have prerequisite for the final exam.			
<b>Screening student work (mark in bold)</b>	<b>Class attendance</b>	<b>Class participations</b>	Seminar essay	<b>Practical training</b>
	<b>Oral exam</b>	<b>Written exam</b>	<b>Continuous assessment</b>	Essay
<b>Detailed evaluation within a European system of points</b>				
<b>STUDENTS RESPONSIBILITIES</b>	<b>HOURS</b>	<b>PROPORTIONS OF ECTS CREDITS</b>	<b>PROPORTIONS OF GRADE</b>	
Class attendance and participations	90	3	0%	
Practical exam	15	0.5	0%	
Written exam	30	1	30%	
Oral exam	45	1.5	70%	
<b>Total</b>	<b>180</b>	<b>6</b>	<b>100%</b>	
<p>Further clarification: Written exam consists of multiple choice questions. Passing the written exam is a requirement for approaching the oral exam. The results of the written exam are acknowledged by the end of the ongoing academic year. After that, students have to take the written exam again. The whole exam should be finished within 5 days after completion of the written exam.</p> <p>Written exam:  45-50 points - excellent (5) - (A)  40-44 points - very good (4) - (B)  34-39 points - good (3) - (C)  28-33 points - satisfactory (2) - (D)  0-27 points - fail (1) - (F)</p> <p>Oral exam: excellent (5) - (A); very good (4) - (B); good (3) - (C); satisfactory (2) - (D); fail (1) - (F).  Final course grade is calculated based on written (30%) and final oral (70%) exam grades.</p>				
<b>Required literature:</b>	<b>Recommended:</b> Simon RP, Aminoff MJ, Greenberg DA. Clinical Neurology. 10th Edition. New York: Lange Medical Books/McGraw Hill, 2018.			
<b>Optional literature:</b>	Mattle H. Mumenthaler M. Fundamentals of Neurology, An illustrated Guide, Second edition. Thieme, 2017. Adams AC. Mayo Clinic Essential Neurology. Rochester (2nd edition): Mayo Foundation for Medical Education and Research, 2017. Fuller G. Neurological Examination Made Easy. Sixth Edition. Elsevier, 2019.			
<b>Additional information about the course</b>	Monitoring methods of teaching quality: - student questionnaire - quality analysis by students and teachers - exam results analysis - report of the office for teaching quality - external evaluation (visit of team for quality control)			

## Annexes: calendar classes

<i>The number of teaching units</i>	<b>TOPICS AND LITERATURE</b>
<b>I.</b>	Title: Introduction to Neurology. Case history of neurological patient
	Short description:
	Literature: Recommended and supplementary
	Title: Examination of neurological patient - Crania nerves
	Short description:
	Literature: Recommended and supplementary
<b>II.</b>	Title: Functional neuroanatomy
	Short description:
	Literature: Recommended and supplementary
	Title: Examination of neurological patient - Motor system
	Short description:
	Literature: Recommended and supplementary
	Title: Examination of neurological patient - Sensory system
	Short description:
Literature: Recommended and supplementary	
<b>III.</b>	Title: Cerebrovascular disorders
	Short description:
	Literature: Recommended and supplementary
	Title: Cerebrovascular disorders - clinical picture
	Short description:
	Literature: Recommended and supplementary
	Title: Ultrasound of the head and neck blood vessels
	Short description:
Literature: Recommended and supplementary	
<b>IV</b>	Title: Movement disorders
	Short description:
	Literature: Recommended and supplementary
	Title: Movement disorders - clinical picture
	Short description:
	Literature: Recommended and supplementary
	Title: Pain and pain syndromes
	Short description:
Literature: Recommended and supplementary	
<b>V</b>	Title: Dementia
	Short description:
	Literature: Recommended and supplementary
	Title: Clinical picture of patient with dementia
	Short description:
	Literature: Recommended and supplementary
	Title: Brain stem syndromes
	Short description:
Literature: Recommended and supplementary	
<b>VI</b>	Title: Intensive care neurology
	Short description:
	Literature: Recommended and supplementary
	Title: Spinal disorders
	Short description:
	Literature: Recommended and supplementary
	Title: Genetics of neurological diseases
	Short description:
Literature: Recommended and supplementary	

<b>VII</b>	Title: Demyelinating disorders
	Short description:
	Literature: Recommended and supplementary
	Title: Treatment of multiple sclerosis
	Short description:
	Literature: Recommended and supplementary
	Title: Localization in clinical neurology
	Short description:
Literature: Recommended and supplementary	
<b>VIII</b>	Title: Coma and brain death
	Short description:
	Literature: Recommended and supplementary
	Title: Autonomic nervous system disorders - selected topics
	Short description:
	Literature: Recommended and supplementary
	Title: Emergency neurology
	Short description:
Literature: Recommended and supplementary	
<b>IX</b>	Title: Headache and cranial neuralgias
	Short description:
	Literature: Recommended and supplementary
	Title: Low back pain
	Short description:
	Literature: Recommended and supplementary
	Title: Diagnosis of cerebrospinal fluid
	Short description:
Literature: Recommended and supplementary	
<b>X</b>	Title: Neuromuscular disorders
	Short description:
	Literature: Recommended and supplementary
	Title: Electromyoneurography
	Short description:
	Literature: Recommended and supplementary
	Title: CNS infections
	Short description:
Literature: Recommended and supplementary	
<b>XI</b>	Title: Central nervous system tumors
	Short description:
	Literature: Recommended and supplementary
	Title: Paraneoplastic neurologic syndromes
	Short description:
	Literature: Recommended and supplementary
	Title: Consciousness and disturbances of consciousness
	Short description:
Literature: Recommended and supplementary	
<b>XII</b>	Title: Epilepsy and paroxysmal consciousness disorders
	Short description:
	Literature: Recommended and supplementary
	Title: Epilepsy - clinical picture. Electroencephalography
	Short description:
	Literature: Recommended and supplementary