

Univerzita Pavla Jozefa Šafárika v Košiciach, Lekárska fakulta  
**Neurologická klinika**

**SYLABUS**

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|--------------------------|---------------------------|-----------------------------------------|
| <b>Subject:</b>          | Neurology 1               | <b>Form of study:</b> full-time         |
| <b>Prerequisites:</b>    | Anatomy 2,3               | <b>Semester:</b> 7. semester            |
| <b>Study program:</b>    | General medicine          | <b>Number of ours:</b> 2 hours per week |
| <b>Teaching formats:</b> | lecture/practical lessons | <b>Credits:</b> 4                       |
| <b>Evaluation:</b>       | test                      |                                         |

**Monday: 15:15 - 16:45**

| <i>Week</i> | <i>Lecture</i>                                                                                                                                                                                                                                                                                                                                                                                                                                              | <i>Practical lessons</i>                                                                                                                                                                                                                                                                                                                                              |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.          | <b>22.09.2025</b><br><br><b>Neurology</b> - general considerations. <b>History taking.</b><br><b>Cranial nerves I-XII</b> , anatomy, physiology, pathology.<br><br><i>prof. MUDr. Zuzana Gdovinová, CSc., FESO, FEAN</i>                                                                                                                                                                                                                                    | <b>Cranial nerves I-XII</b> , anatomy, physiology, pathology.                                                                                                                                                                                                                                                                                                         |
| 3.          | <b>29.09.2025</b><br><br><b>Affection of the upper and the lower motor neurons</b> – anatomic and physiologic considerations, diagnosis of paralytic states – lesion of corticospinal tract, brain stem syndromes, lower motor neuron lesions. <b>Sensation.</b> Anatomy, pathology.<br><br><i>MUDr. Vladimír Haň, PhD.</i>                                                                                                                                 | <b>Neurology</b> - general considerations. <b>History taking.</b>                                                                                                                                                                                                                                                                                                     |
| 4.          | <b>06.10.2025</b><br><br><b>Language and higher cortical function.</b> Physiological and anatomical considerations. Language disorders, brain lobes pathology.<br><b>Consciousness and unconsciousness.</b> Causes of unconsciousness, quantitative disorders of consciousness: drowsiness, stupor, coma. The investigation of unconscious patient. Glasgow coma scale. Delirium. Brain death.<br><br><i>prof. MUDr. Zuzana Gdovinová, CSc., FESO, FEAN</i> | <b>Affection of upper and lower motor neurons</b> – anatomic and physiologic considerations, diagnosis of paralytic states – lesion of corticospinal tract, brain stem syndromes, lower motor neuron lesions. <b>Sensation.</b> Anatomy, pathology.                                                                                                                   |
| 5.          | <b>13.10.2025</b><br><br><b>Meningeal syndrom. Cerebrospinal fluid.</b> Physiology, pathology. <b>Lumbar puncture. Intracranial hypertension. Herniation of the brain</b> – temporal, occipital.<br><br><i>prof. MUDr. Zuzana Gdovinová, CSc., FESO, FEAN</i>                                                                                                                                                                                               | <b>Language and higher cortical function.</b> Physiological and anatomical considerations. Language disorders, brain lobes pathology.<br><b>Consciousness and unconsciousness.</b> Causes of unconsciousness, quantitative disorders of consciousness: drowsiness, stupor, coma. The investigation of unconscious patient. Glasgow coma scale. Delirium. Brain death. |
| 6.          | <b>20.10.2025</b><br><br><b>Cerebellum.</b> Anatomy. Paleocerebellar and neocerebellar syndromes. Disorders of stance and gait. <b>Extrapyramidal system.</b> Hypertonic - hypokinetic syndrom. Hypotonic - hyperkinetic syndrom. Dystonia.<br><br><i>prof. MUDr. Matej Škorvánek, PhD.</i>                                                                                                                                                                 | <b>Meningeal syndrom. Cerebrospinal fluid.</b> Physiology, pathology. <b>Lumbar puncture. Intracranial hypertension. Herniation of the brain</b> – temporal, occipital.                                                                                                                                                                                               |
| 7.          | <b>27.10. 2025</b><br><br><b>Plane X-ray</b> of the skull and spine. <b>Computer tomography</b> of the brain and spinal column. <b>MRI</b> of the brain and spinal cord. PET, SPECT, DAT SCAN.<br><b>Ultrasound examintaion in neurology.</b> Duplex ultrasound of extracranial and intracranial cerebral                                                                                                                                                   | <b>Cerebellum.</b> Anatomy. Paleocerebellar and neocerebellar syndromes. Disorders of stance and gait. <b>Extrapyramidal system.</b> Hypertonic - hypokinetic syndrom. Hypotonic - hyperkinetic syndrom. Dystonia.                                                                                                                                                    |

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|     | arteries. <b>Angiography of cerebral arteries.</b> General considerations, clinical value.<br><br><i>prof. MUDr. Zuzana Gdovinová, CSc., FESO, FEAN</i>                                                                                                      |                                                                                                                                                                                                                                                                                                                                                     |
| 8.  | <b>03.11.2025</b><br><b>Electroencephalography. Polysomnography.</b> General considerations, clinical value.<br><br><i>doc. MUDr. Eva Feketeová, PhD.</i>                                                                                                    | <b>Plane X-ray</b> of the skull and spine. <b>Computer tomography</b> of the brain and spinal canal. <b>MRI</b> of the brain and spinal cord.<br><b>Ultrasound examintaion in neurology.</b> Duplex ultrasound of extracranial and intracranial cerebral arteries. <b>Angiography of cerebral arteries.</b> General considerations, clinical value. |
| 9.  | <b>10.11.2025</b><br><b>Electromyography, evoked potentials.</b> General considerations, clinical value.<br><br><i>prof. MUDr. Jarmila Szilasiová, PhD.</i>                                                                                                  | <b>Electroencephalography. Polysomnography.</b>                                                                                                                                                                                                                                                                                                     |
| 10. | <b>17.11.2025 SVIATOK</b><br><b>Sleep disorders.</b> Hypersomnia of the CNS origin. Restless leg syndrome.<br><br><i>doc. MUDr. Eva Feketeová, PhD.</i>                                                                                                      | <b>Electromyography.</b>                                                                                                                                                                                                                                                                                                                            |
| 11. | <b>24.11.2025</b><br><b>TEST</b>                                                                                                                                                                                                                             | <b>Evoked potentials</b>                                                                                                                                                                                                                                                                                                                            |
| 12. | <b>01.12.2025</b><br><b>Head injury.</b> Concussion, subdural, epidural hematoma, contusion of the brain. <b>Spinal column and spinal cord injury.</b><br><br><i>prof. MUDr. Jarmila Szilasiová, PhD.</i>                                                    | Examination of the patient.                                                                                                                                                                                                                                                                                                                         |
| 13. | <b>08.12.2025</b><br><b>Dementia.</b> Diagnosis, diferencial diagnosis. Alzheimer disease, Lewy body disease, frontotemporal dementia. Vascular dementia, other dementias. Diagnostic, therapy.<br><br><i>prof. MUDr. Zuzana Gdovinová, CSc., FESO, FEAN</i> | <b>Head injury.</b> Concussion, subdural, epidural hematoma, contusion of the brain. <b>Spinal column and spinal cord injury.</b>                                                                                                                                                                                                                   |
| 14. | <b>15.12.2025</b><br><b>Sleep disorders.</b> Hypersomnia of the CNS origin. Restless leg syndrome.<br><br><i>doc. MUDr. Eva Feketeová, PhD.</i>                                                                                                              | <b>Dementia.</b> Diagnosis, diferencial diagnosis. Alzheimer disease, Lewy body disease, frontotemporal dementia. Vascular dementia, other dementias. Diagnostic, therapy                                                                                                                                                                           |

#### Conditions for passing the course:

1. Active participation in practical exercises.
2. **Attendance at the 9 lectures is mandatory**
3. Practical examination of the neurological patient.
4. Successful completion of the test, evaluation A – E (possibility to repeat the test 2 times).

#### Literature:

Gdovinová Z., Szilasiová J.: Textbook of general neurology. Košice : Aprilla Ltd. for Hanzlúvka Books, 2009. 189 s. ISBN 9788089346158 (brož.), also 3d edition 2019, ISBN 978-1-259-83531-5, ISSN 1932-1074

Brust J.C.M.: Neurology. Current Diagnosis and treatment. Lange Medical Books/McGraw-Hill, 2007. 601 pp. ISBN: 13: 978-0-07-110554-5, also 3d edition 2019, ISBN 978-1-259-83531-5, ISSN 1932-1074

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