

REQUIREMENTS

Semmelweis University, Faculty of General Medicine – single, long-cycle medical training programme			
Name of the host institution (and any contributing institutions): Semmelweis University, Department of Neurology			
Name of the subject: Neurology			
in English: Neurology			
in German: Neurologie			
Credit value: 3 credits for 3 weeks of compulsory practice and 6 credits for 6 weeks of elective chosen practice			
Semester: the rigorous year does not take place in semesters, but in consecutive blocks throughout the sixth year. <i>(as defined in the curriculum)</i>			
Total number of classes	lectures:	practical lessons: 120/240	seminars:
Type of subject: <u>compulsory</u> optional <u>elective</u> (PLEASE UNDERLINE AS APPLICABLE)			
Academic year: 2023/2024			
Language of instruction, for optional or elective subjects: english			
Course code: AOKNEU608_SA; AOKNEU657_SA AOKADH661_SA <i>(In the case of a new subject, this cell is filled in by the Dean's Office, following approval)</i>			
Course coordinator: Dániel Bereczki M.D. D.Sc.			
Place of work, phone number: Semmelweis University, Department of Neurology			
Position: Head of Department			
Date and number of habilitation: 12/1999. DOTE			
Objectives of the course and its place in the medical curriculum: Acquisition of theoretical and practical neurological knowledge required in general medical education and expanding and deepening knowledge gained during the fifth year. Acquire direct practical knowledge in every day neurological patient care during an optional six-week period.			
Place of instruction (address of lecture hall or seminar room etc.): Conference room, class room, and wards of the Department of Neurology, H-1083 Budapest, Balassa u.6.			
Competencies acquired through the completion of the course: The student learns the technique of neurological physical examination and the interpretation of the findings. Detects when examining a patient in need of urgent care. Knows the most common neurological and borderline disorders.			
Prerequisites for course registration and completion: Fulfill the requirements of fifth year neurological training			

Conditions for concurrent course registration and permission thereof in the case of a multi-semester subject:

Due to the education spanning the semester system, the teaching of the subject is not organized in semesters, but in a block system. The length of each block in the strict year is 3 weeks in compulsory education, 6 weeks in optional (freely chosen) education.

Student headcount conditions for starting the course (minimum, maximum) and method of student selection:

Minimum: 5 students/Maximum 40 students

I

Detailed course description:

(Theoretical and practical instruction must be broken down into lessons (weeks), numbered separately. Please provide the names of lecturers in both types of lessons, indicating guest lecturers. This information is not to be attached separately. CVs of guest lecturers, however, must be attached.)

Priority questions

1. Disorders of the innervation of pupils.
2. The facial nerve
3. Differential diagnosis of vertigo and dizziness
4. Localisation of paresis syndromes
5. Symptoms of upper and lower motroneuron lesion
6. Types and localisation of aphasia
7. Classification of unconscious conditions
8. Examination of the unconscious patient
9. Unconsciousness due to metabolic origin
10. Emergency in Neurology
11. Clinical manifestation of increased intracranial pressure. Herniations.
12. Traumatic intracranial bleeding
13. Trauma of the spine and spinal cord
14. Clinical syndromes of impaired circulation of the internal carotid artery
15. Clinical syndromes of impaired circulation of the vertebro-basilar system
16. Emergency in cerebrovascular disorders
17. Diagnostic procedures in cerebrovascular disorders.
18. Disturbance of cerebral venous circulation.
19. Intracerebral bleedings.
20. Diagnosis, treatment and prognosis of subarachnoid hemorrhage
21. Status epilepticus
22. Meningitis, encephalitis
23. Multiple sclerosis
24. Signs of brain tumors
25. Signs of tumors of the spine and spinal space
26. Brain edema
27. Diagnostic criteria of dementia
28. Diagnosis of Parkinson's disease
29. Wernicke-Korsakow syndrome
30. Guillain-Barre syndrome
31. Disturbance of micturition and defecation
32. Myasthenia gravis

II.

1. Neurological causes of impaired visual acuity. Visual field defects.
2. Ocular movement and gaze disorders
3. Disorders of the vestibular system.
4. Syndromes of lower cranial nerve dysfunctions.
5. Syndromes of pons and mesencephalon lesions
6. The muscle tone control
7. Neuroanatomical basis of sensory disturbances
8. Functional systems of cerebellum. Signs of cerebellar disorders.
9. Gait disorders
10. Symptoms of frontal lobe damage

11. Symptoms of temporal lobe damage
12. The limbic system
13. Symptoms of parietal lobe damage
14. Symptoms of occipital lobe damage
15. Cerebral dominance (functional brain asymmetry)
16. Classification of aphasia
17. Agnosia, apraxia, alexia, agraphia
18. The basal ganglia
19. Disorders of the thalamus
20. Localisation of memory disturbances
21. Imaging techniques (angiography, CT, MR, PET, SPECT)
22. Ultrasound examination of the cerebral vessels
23. EEG in the diagnostic workup
24. EMG, nerve conduction studies, transcranial magnetic stimulation and evoked potentials (BAEP, VEP, SSEP)
25. The lumbar puncture and the examination of cerebrospinal fluid
26. The cerebral circulation, and its regulation
27. Classification of cerebrovascular disorders
28. TIA
29. Cerebrovascular disorders in young adults
30. Treatment of cerebral ischemia
31. Classification of epilepsy
32. Diagnostic workup of epilepsy
33. Differential diagnosis of syncope and other types of disturbed consciousness
34. Treatment of epilepsy

III.

1. Neurological disorders caused by viral infections
2. Neurological disorders caused by Herpes virus
3. Prion-diseases, slow virus infections
4. Neurological consequences of AIDS
5. Clinical types and treatment of multiple sclerosis
6. Histopathological classification of brain tumors
7. Brain tumors of childhood
8. Metastatic tumors of the brain
9. Paraneoplasias of the nervous system (PML, neuropathies, cerebellar deg., Lambert-Eaton sy.)
10. Disorders associated with parkinsonian syndrome
11. Treatment of Parkinson's disease
12. Hyperkinetic movement disorders
13. Differential diagnosis of tremor
14. Classification of encephalopathies
15. Primary degenerative dementias
16. Dementia in cerebrovascular disorders
17. Multisystem atrophy
18. Disturbed cerebrospinal fluid circulation (hydrocephalus)
19. Syndrome of brachial plexus damage
20. Syndrome of radial, ulnar and median nerve damage
21. Syndrome of lumbosacral plexus damage
22. Etiology of polyneuropathies
23. Neuropathies in diabetes mellitus
24. Inherited neuropathies (Charcot-Marie, Dejerine-Sottas, Refsum)
25. Low back pain, and cervical disk disease
26. Craniocervical developmental malformations
27. Malformation of the spine and spinal cord
28. Symptoms of the disorder of spinal cord
29. Motoneuron diseases (ALS, progr. bulbar palsy)
30. Muscular dystrophies
31. Myositis and myopathies
32. Primary headache syndromes
33. The neuralgias
34. The physiological sleep and the sleep disorders
35. Genetic background of muscle disorders
36. Inborn metabolic disorders affecting the nervous system
37. Trinucleotid repeat diseases (Huntington chorea, fragile X, dystrophia myotonica)

38. Genetic background of dementias

Related subjects due to interdisciplinary fields (both compulsory and elective) and potential overlaps between subjects:

1. Neuroanatomy
2. Pharmacology
3. Epidemiology
4. Internal medicine
5. Psychiatry
6. Neurosurgery
7. Traumatology
8. Ophthalmology
9. Otorhinolaryngology
10. Sleep medicine

Attendance requirements; conditions under which students can make up for absences and the method of absence justification:

Attendance is compulsory. Absence may not exceed 20% of the training period. Replacement is subject to individual assessment.

Form of assessment in the study period:

(including the number, topics and scheduling of oral and written tests, their share in the overall evaluation, make-up tests and improvement tests)

During the internship period, the tutor of the student examines the activities of the student on a daily basis.

During the six-week internship, the job of a graduate student is the same as that of a beginner resident. The work is first checked by a resident under the supervision of a specialist.

Number and type of assignments for individual work and the deadline for submission:

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Requirements to obtain the teacher's signature:

Attendance at practice is mandatory.

The case report is evaluated by a senior instructor. Participation in the on-call duty is certified by the head of the on-call service. Actual attendance at a speciality clinic is certified by the clinic manager.

Type of assessment: *(comprehensive examination, end-term examination, term-grade, term-grade on a three-grade rating scale, coursework project, no examination)*

Oral final exam

Examination requirements:

(list of examination topics, subject areas of tests / examinations, lists of mandatory parameters, figures, concepts and calculations, practical skills and the optional topics for exam-equivalent coursework projects, their criteria of completion and assessment)

The prerequisite for the practice exam is the ability to use the correct examination technique and the recognition of pathological symptoms. In addition to teaching in contact classes, we help the students' preparation with a book on neurological examination techniques and course material available in the e-learning system.

Method and type of grading:

(Share of theoretical and practical examinations in the overall evaluation. Inclusion of the results of the end-of-term assessment. Possibilities of and conditions for offered grades.)

Five grade rating

<p>List of course books, textbooks, study aids and literature facilitating the acquisition of knowledge to complete the course and included in the assessment, precisely indicating which requirement each item is related to (e.g., topic by topic) as well as a list of important technical and other applicable study aids:</p> <ol style="list-style-type: none"> 1. Arányi Zs., Kamondi A., Kovács T., Szirmai I.: Investigation of neurological patients 2. Lindsay, Bone, Callender: Neurology and Neurosurgery Illustrated. Churchill Livingstone 3. Adams: Principles of Neurology. McGraw-Hill 4. E-learning system (https://itc.semmelweis.hu/moodle/login/index.php) 5.
<p>Signature of habilitated instructor (course coordinator) announcing the course: Dániel Bereczki MD. DSc. Head of Department</p>
<p>Signature of the director of the host institution: Dániel Bereczki MD. DSc. Head of Department</p>
<p>Date of submission: 24.Apr.2023. Budapest</p>
<p>Credit Transfer Committee's opinion:</p>
<p>Comment of the Dean's Office:</p>
<p>Signature of the Dean:</p>

¹ Dékáni Hivatal tölti ki, jóváhagyást követően.

² Az elméleti és gyakorlati oktatást órákra (hetekre) lebontva, sorszámozva külön-külön kell megadni, az előadók és a gyakorlati oktatók nevének feltüntetésével. Mellékletben nem csatolható!

³ Pl. terepgyakorlat, kórlapelemzés, felmérés készítése stb.

⁴ Pl. házi feladat, beszámoló, zárthelyi stb. témaköre és időpontja, pótlásuk és javításuk lehetősége.

⁵ Elméleti vizsga esetén kérjük a tételsor megadását, gyakorlati vizsga esetén a vizsgáztatás témakörét és módját.

⁶ Az elméleti és gyakorlati vizsga beszámításának módja. Az évközi számonkérések eredményeink beszámítási módja.

