

### Study program: Integrated Academic Studies in Medicine

#### **Course title: Neurology**

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## Course status: compulsory

# ECTS Credits: 5

**Condition:** Clinical Propedeutics (exam); Pharmacology and Toxicology 1 (exam)

### Course aim

The aim of this course is to provide medical students with knowledge on pathogenetic basis and clinical symptoms of common neurological disorders and their current neurological diagnostic procedures, treatment, and prognosis.

#### Expected outcome of the course:

The course provides students with a general understanding of symptoms and signs of disorders of different structures of the central nervous system, evaluation of the patient with neurological symptoms, how and when to suspect a neurological entity, perform an adequate diagnostic procedure and if necessary initiate a treatment.

After completing the course the student should:

- be able to carry out history-taking and a complete neurological examination of the patient and based on it
- formulate a working (probable) diagnosis and indicate basic laboratory investigations;
- be familiar with basic principles of the management of urgent neurological conditions;

 have an understanding of conditions that require referral to a neurology specialist (i.e. whether a condition requires in-patient investigation and treatment)

## **Course description**

Theoretical education

- 1. Episodic disturbance of consciousness, coma, delirium. Sleep disorders
- 2. Epilepsy and epileptic syndromes
- 3. Headache, neuralgia, vertigo
- 4. Ischemic cerebrovascular disease
- 5. Hemorrhagic cerebrovascular disease and brain edema
- 6. Infectious disease of the CNS and neurological complications of systemic disorders
- 7. Dementias
- 8. Leucodystrophies and metabolic disorders
- 9. Neurological aspects of CNS trauma and CNS tumors
- 10. Demyelinating diseases
- 11. Movement disorders and cerebellar disorders
- 12. Developmental neurology
- 13. Motor neuron disorders and polyneuropathies
- 14. Brainstem and spinal cord disorders
- 15. Neuromuscular junction disorders and muscular disease

#### Practical education

- 1. Neurological history taking
- 2. Examination of cranial nerves I-VI
- 3. Examination of cranial nerves VII-XII
- 4. Examination of the neck, upper and lower limbs (nutrition, tonus, movement, muscular reflexes, strength, stretching tests)
- 5. Examination of sensibility
- 6. Extrapyramidal symptoms and signs
- 7. Examination of cerebellar functions
- 8. Examination of higher cerebral functions
- 9. Diagnostic procedures in neurology (EEG, video EEG, EMNG, EP, LP, CSF isoelectric focusing, ultrasonography, CT, MRI, PET, SPECT)
- 10. Examination of a comatose patient

11. Examination of a patient with myasthe	enia gravis				
12. Neurological examination of a paediate	ric patient				
13. Gait disorders (differential diagnosis)					
14. Headaches					
15. Complete neurological examination of	different neurological	diseases, differential diagr	nosis		
Literature					
Compulsory :					
1. Mumenthaler M, Mattle H. Fundamenta	als of neurology. Thieme	e, 2006.			
2. Gilman S. at al. Oxford american handbo	ook of neurology. Oxfor	d University Press, Inc. 20	10.		
3. Westover MB. Pocket neurology. Lippin	cott Williams and Wilkir	ns, 2016			
Additional:					
1. Adams RD, Victor M, Ropper AH. Princi	iples of neurology. Mc G	Graw-Hill New York 1997 (	2005,2009,2014)		
Number of active classes	Theoretical classes: 30		Practical classes: 60		
				Other classes: 15	
Teaching methods: lectures, practice					
Stu	udent activity assessme	ent (maximally 100 points)	(		
Pre-exam activities	points	Final exam		points	
Lectures	15	Written		60	
Practices	15	Oral			
Colloguium		Practical		10	
				10	