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				000	or ipile				Gr	oup of	detaile	ed educ	ation $r\epsilon$	sults
Course				Ne	urolog	ý			Gr	oup co	ode	Gro Genera Science Surgica	s (Non-	al
Faculty	Facu	ltv of	Medic	ine										
Major		icine	11100110											
Level of studies	☐ 1 <sup>st</sup> ☐ 2 <sup>nt</sup> ☐ 3 <sup>rc</sup> ☐	degre degr degr	ee stud ee stud ee stud	dies										
Form of studies	X ful	l-time	e 🗆	part-tir	me									
Year of studies				V				Seme	ster:		inter umme	er		
Type of course	□lin		choice	optiona	al									
Language of study	□ Pc	olish	X Eng	glish	N11	6 1								
						per of h								
			-		Form (	of educ	cation	T					1	1
		Lectures (L)	Seminars (SE)	Auditorium classes (AC)	Major Classes – not clinical (MC)	Clinical Classes (CC)	Laboratory Classes (LC)	Classes in Simulated Conditions (CSC)	Practical Classes with Patient (PCP)	Foreign language Course (FLC)	Physical Education (PE)	Vocational Practice (VP)	Directed Self-Study (DSS)	E-learning (EL)
Winter semester: 30	0 h													
Department of Neuro														
Direct (contact) educ	ation <sup>1</sup>					30								
Distance learning <sup>2</sup>														
Summer semester:	60 h													
Department of Neuro (Dep. in charge of the c														

 $<sup>^{\</sup>rm 1}$  Education conducted with direct participation of university teachers or other academics  $^{\rm 2}$  Education with applied methods and techniques for distance learning

Direct (contact) education	28	32		
Distance learning				
TOTAL Department of Neuro	ology <b>per year:</b>	90 h		
Department of Neurology (Dep. in charge of the course)				
Direct (contact) education	28	62		
Distance learning				

# Educational objectives (max. 6 items)

- C.1. Getting students familiar with methodology of neurological examination, diagnostic procedures in central and peripheral nervous system diseases.
- C.2. Getting students familiar with different groups of neurological disorders and therapeutic possibilities according to the newest scientific data.
- C.3. Practical application of the theoretical knowledge.
- C.4. Development social competences needed to practice the medical profession, in accordance with graduate's profile.

Education result for course in relation to verification methods of the intended education result and the type of class:

	of class:		
Number of detailed education result	Student who completes the course knows/is able to	Methods of verification of intended education results	Form of didactic class *enter the abbreviation
E.W.13	In terms of knowledge the graduate knows and understands basic neurological symptom clusters;	Oral presentation, test, practical examination, theoretical examination (oral)	L, CC
E.W.14	In terms of knowledge the graduate knows and understandscauses, symptoms, principles of diagnosis and therapeutic management of the most common diseases of the nervous system, including:  1. headache, migraine, tension-type headache and headache syndromes, and V nerve neuralgia  2. cerebrovascular diseases, in particular stroke, 3. epilepsy  4. infections of the nervous system, in particular meningitis, lyme disease, herpes simplex encephalitis, neurotransmission diseases,  5. dementias, in particular Alzheimer's disease, frontotemporal dementia, vascular dementia and other dementia syndromes,  6. basal ganglia diseases, in particular Parkinson's disease, 7. demyelinating diseases, in particular multiple sclerosis, 8. diseases of the neuromuscular system, in particular amyotrophic lateral sclerosis and sciatica,	Oral presentation, test, practical examination, theoretical examination (oral)	L, CC

	9. craniocerebral trauma, in particular concussion		
E.U.1.	In terms of skills the graduate is able to conduct anamnesis with an adult patient	Oral presentation, practical examination	CC
E.U.3.	In terms of skills the graduate is able to conduct a complete and focused physical examination of an adult patient	Oral presentation, practical examination	CC
E.U.7.	In terms of skills the graduate is able to assess the general condition, state of consciousness and awareness of the patient	Oral presentation, practical examination	CC
E.U.13	In terms of skills the graduate is able to assess and describe the somatic and psychological state of the patient	Oral presentation, practical examination	CC
E.U.14	In terms of skills the graduate is able to . recognize immediate life-threatening conditions	Oral presentation, practical examination	CC
E.U.16	In terms of skills the graduate is able to plan diagnostic, therapeutic and preventive procedures	Oral presentation, practical examination	СС
E.U30	In terms of skills the graduate is able to assist in performing the following medical procedures and treatments – lumbar puncture	Practical skills	СС
E.U38	maintain patient medical records	Practical skills	CC

<sup>\*</sup> L- lecture; SE- seminar; AC- auditorium classes; MC- major classes (non-clinical); CC- clinical classes; LC- laboratory classes; CSC- classes in simulated conditions; PCP- practical classes with patient; FLC- foreign language course; PE- physical education; VP-vocational practice; DSS- directed self-study; EL- E-learning

Student's amount of work (balance of ECTS points):

Student's workload	Student Workload
(class participation, activity, preparation, etc.)	
1. Number of hours of direct contact:	90
2. Number of hours of distance learning:	
3. Number of hours of student's own work:	103
4. Number of hours of directed self-study	n/a
Total student's workload	193
ECTS points for course	6,5

**Content of classes:** (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects)

#### Lectures

- 1. Structural basis of nervous system's function.- 2h
- 2. Developmental disorders of nervous system. Pyramidal syndromes. .- 2h
- 3. Basis of neuropediatrics: cerebral palsy, hereditary disorders. .- 2h
- 4. Frontal, temporal, occipital, and parietal lobes' lesions. .- 2h
- 5. Extrapyramidal syndromes (parkinsonism, Huntington chorea, dystania) .- 2h
- 6. Headaches (migraine, tension-type headache), secondary headaches, brain tumors. .- 2h
- 7. Vascular diseases of central nervous system.- 2h
- 8. Dementia (Alzheimer disease, vascular dementia, secondary and reversible dementia). .- 2h
- 9. Demyelinatiing disorders (multiple sclerosis diagnosis, treatment). .- 2h
- 10. Epilepsy classification, types, treatment. Coma, brain death. .- 2h
- 11. Neuromuscular and autonomic disorders: diagnosis, treatment. .- 3 h

- 12. Cognitive dysfunctions( aphasia, agnosia, apraxia). .- 2,5h
- 13. Emotions, memory. Autonomic disfunction. .- 2,5h

## Seminars

- 1.
- 2.
- 3.

ect.

### Classes

#### Winter semester:

- 1. Interview. Examination of head, cranial nerves I, II, III, IV and VI.- 4h
- 2. Examination of cranial nerves V,VII, VIII, cerebellopontine angle sydrome. .- 4h
- 3. Examination of cranial nerves IX,X,XI,XII, bulbar and pseudobulbar syndromes.- 4h
- 4. Examination of limbs and trunk, radicular and meningeal signs. .- 4h
- 5. Cognitive impairment examination: aphasia, apraxia, agnosia. Examination of comotose patient, coma and brain death.- 4h
- 6. Symptoms of central and peripharal motorpathway lesions, symptoms of spinal cord lesions: vertical and horizontal lesions, sensory pathway lesions. .- 4h
- 7. Cerebellar and extrapyramidal symptoms.- 4h
- 8. Neurodiagnostic procedures: neuroelectrophysiological procedures: EEG, EMG, EP, ENG, cerebrospinal fluid examination, radiological procedures: CT, MRI, fMRI, PET, SPECT, vascular investigations: doppler, angio-CT, angio-MR, neuropathological examination.- 2h

#### Summer semester:

- 1. Demyelinating diseases.- 4h
- 2. Vascular diseases of CNS -4h
- 3. Tumors of brain and spinal cord, headache.- 4h
- 4. Epilepsia, dementia, Alzheimer disease 4h
- 5. CNS inections, AIDS neurological compications 4h
- 6. Neurodegenerative disorders: Parkinson's disease, MSA 4h
- 7. Peripheral nerve, plexus and root disfunctions, myopathies, myasthenia gravis and myasthenic syndromes 4h,
- 8. Early and late head injury complications 2h, practical examination 2h

## Other

- 1.
- 2.
- 3.

Basic literature (list according to importance, no more than 3 items)

- 1. 1. Mattle H., Mumenthaler M. Findamentals of Neurology. Thieme, 2016
- 2. Burneo J., et al. Neurology. Springer, New York, 2011
- 3. Weiner H. L., Levitt L. P.: Neurology, William and Wilkins, 2008

# Additional literature and other materials (no more than 3 items)

- 1. Bradley W.G.: Neurology in clinical practice. Butterworth Heinemenn, 2003.
- 2. Hankey G.J., Wardlaw J.H.: Clinical Neurology. Blackwell Publishing, Manson Publishing 2002

**Preliminary conditions:** (minimum requirements to be met by the student before starting the course) Credits for previous subjects: anatomy, physiology, biochemistry, histopathology, basics of internal medicine, radiology.

Conditions to receive credit for the course: (specify the form and conditions of receiving credit for classes included in the course, admission terms to final theoretical or practical examination, its form and requirements to be met by the student to pass it and criteria for specific grades)

Attention! Attendance can not be a condition for passing the course

Participation in all classes (100%) - each absence could be made up for the whole winter/summer semester during classes with other group, and the teachers' duties.

The student must know all issues, get credit in the form of the practical examination, during which the student performs the task on his own, correctly interprets the results, draws diagnostic conclusions, proposes diagnostics and therapy. The student is not allowed to proceed the oral exam without getting credit of the practical exam.

The oral exam includes assessment of: the knowledge of the neurological issues, inference, substantive and terminological mistakes, range and fluency of the statement.

Grade:	Criteria for courses ending with a grade <sup>3</sup>
Very Good (5.0)	Performs the task of his own, correctly Interprets their results and draws diagnostic conclusions, proposes further diagnostic procedures and therapy.
Good Above (4.5)	Performs the task of his own, correctly Interprets their results, but needs help in drawing conclusions, planning the further diagnostic procedures and therapy.
Good (4.0)	Performs the task of his own, interprets their results with minor mistakes and corrects them, needs help in drawing conclusions, planning the further diagnosti procedures and therapy.
Satisfactory Plus (3.5)	Partly performs the tasks, interprets their results with minor mistakes and corrects them, needs help in drawing conclusions, planning the further diagnostic procedures and therapy.
Satisfactory (3.0)	Partly performs the tasks, interprets their results with minor mistakes, not all mistakes can correct, needs a lot of help in drawing conclusions, planning the further diagnostic procedures and therapy
	Criteria for courses ending with a credit <sup>3</sup>
Credit	

Grade:	Criteria for exam³
Very Good (5.0)	Full knowledge of the neurological issues, fluent and range statement without substantive and terminological mistakes, independent inference and summary of the statement.
Good Above (4.5)	Knowledge of the neurological issues, fluent statement without important, substantive and terminological mistakes, correct inference and summary of the statement.

<sup>&</sup>lt;sup>3</sup> The verification must cover all education results, which are realize in all form of classes within the course



	Knowledge of the neurological issues, full statement after the leading questions,
Good (4.0)	without important, substantive and terminological mistakes, satisfactory
	inference and summary of the statement.
	Incomplete knowledge of the neurological issues, needs leading questions,
Satisfactory Plus (3.5)	substantive and terminological mistakes which can correct with help or
	independently, satisfactory inference and summary of the statement.
	Incomplete knowledge of the neurological issues, needs leading questions,
Satisfactory (3.0)	substantive and terminological mistakes, is not able to correct them all,
	incomplete inference and summary of the statement.

Department in charge of the course:	Department of Neurology			
Department address:	UI. Borowska 213, 50-556 Wrocław			
Telephone:	+ 48 71 734 31 00			
E-Mail:	slawomir.budrewicz@umed.wroc.pl			

Person in charge for the course: Telephone: E-Mail:		Dr hab. Sławomir Budrewicz, Prof. UM						
		+ 48 71 734	+ 48 71 734 31 00 slawomir.budrewicz@umed.wroc.pl					
		slawomir.b						
List of persons conduction	ng specific	classes:						
Name and surname	Degree/scientific or professional title		Discipline	Performed profession	Form of classes			
Anna Pokryszko-Dragan	MD, PhD, post-doctoral, Prof.		medical sciences	physician	lectures, clinical classes			
Magdalena Koszewicz	MD, PhD, post-doctoral		medical sciences	physician	lectures, clinical classes			
Marta Nowakowska-Kotas	MD, PhD		medical sciences	physician	lectures, clinical classes			
Mieszko Zagrajek	MD, PhD		medical sciences	physician	lectures, clinical classes			
Ewa Koziorowska-Gawron	MD, PhD		medical sciences	physician	lectures, clinical classes			
Justyna Chojdak-Łukasiewicz	MD, PhD		medical sciences	physician	lectures, clinical classes			
Monika Służowska	MD BPD		modical sciences	physician	clinical classes			

medical sciences

medical sciences

medical sciences

medical sciences

physician

physician

physician

physician

Date of Syllabus development 26.06.2021

Monika Służewska

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Syllabus developed by

clinical classes

clinical classes

clinical classes

Dr hab. Magdalena Koszewicz..

dr hab. n. med.

Megdelena Koszewicz S. SHALISTA NEUROLOG

Signature of Head Signature white(s) KATEDRA NEUROLOGII

> kierowoll dr hab. Sławomir Budrewicz, prof. nadzw.

KLINIKA NEUROROGH



Dean's signature

Wroclaw Medical University
Faculty of Medical University
Vice The Studies
prof. Beata Whieszczańska, PhD