

MINISTRY OF HEALTH OF UKRAINE  
KHARKIV NATIONAL MEDICAL UNIVERSITY

DEPARTMENT OF NEUROLOGY

Academic year 2023-2024

SYLLABUS OF THE EDUCATIONAL COMPONENT

"NURSING IN NEUROLOGY"

**Elective discipline**

Form of education \_\_\_\_\_ full-time \_\_\_\_\_  
(full-time; part-time; remote)

Field of knowledge \_\_\_\_22 "Health care" \_\_\_\_\_  
(code and name of field of knowledge)

Specialty 223 "Nursing" \_\_\_\_\_  
(code and name of specialty)

Specialization (if available) \_\_\_\_\_

Educational and professional program \_\_ "Nursing" \_\_

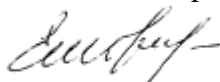
First (bachelor) level of higher education

Course \_\_III (4 years of study)\_\_\_\_

The syllabus of the academic discipline was approved at the meeting of the department of neurology

Protocol from  
"\_25\_" \_\_August\_\_ 2022\_ No. 17

Head of the department



\_\_\_\_\_prof. Tovazhnyanska O.L.  
(signature) (surname and initials)

Approved by the methodical commission of KhNMU of the therapeutic profile

Protocol from  
"\_25\_"\_August\_\_2022\_\_ year No. \_1\_

Head



\_\_\_\_\_Prof. Kravchun P.H.\_ (signature)  
(surname and initials)

***Syllabus of the educational component "Nursing in neurology" for students of education in the field of knowledge 22 "Health care" in the specialty 223 "Nursing", first (bachelor's) level***

Course 3 (4 years of study)

Developers: Head of the Department of Neurology, Doctor of Medicine, Professor O.L. Tovazhnianska;  
Associate Professor, Doctor of Medicine O. I. Kauk.

## **DATA ON TEACHERS TEACHING THE EDUCATIONAL COMPONENT**

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### **Information about consultations**

1. Face-to-face consultations are carried out by teachers of groups according to the schedule approved by the department, which can be viewed at the information stand of the department, on the eve of credit classes.

### **Location**

Place of practical classes: study room of the Department of Neurology on the basis of the KNP KHOR "OKL" (Kharkiv, 13 Nezalezhnosti Ave.) or study rooms of the Department of Neurology on the basis of the NNMC "University Clinic" of KhNMU (Kharkiv, O. Shpeyer St. 4).

Time of classes: according to the schedule.

## INTRODUCTION

**Syllabus of the educational component** "Nursing in neurology" was compiled in accordance with the educational and professional program (hereinafter referred to as the EPP) "Nursing" and the Standard of Higher Education of Ukraine (hereinafter referred to as the Standard), first (bachelor's) level, field of knowledge 22 "Health Care", specialty "Nursing".

### **Description of the educational component (abstract).**

Neurology is a branch of clinical medicine that studies the etiology, pathogenesis, and clinical manifestations of diseases of the nervous system and develops methods of their diagnosis, treatment, and prevention.

The educational component "Nursing in neurology" is a component of the professional training of a future paramedic and provides an opportunity for students to learn not only the basic theoretical

In accordance with the EPP and the curriculum for the training of specialists of the first (bachelor) educational and qualification level of the qualification of the field of knowledge 22 "Health care" in the specialty 223 "Nursing" for the discipline "Nursing in neurology" 3.0 ECTS credits are allocated, the total number of hours - 90; classroom - 36 hours of practical classes and independent work - 54 hours.

### **The form of final control is the offset.**

**Subject of study** the educational component includes knowledge about the peculiarities of the structure and functioning of various part of the nervous system, methods of researching the neurological status, etiopathogenetic features, clinical manifestations, differential diagnostic signs and modern treatment and algorithms, peculiarities of care for patients with various diseases of the nervous system.

### **Interdisciplinary connections:**

**Prerequisites:** "Nursing in neurology" as an educational component is based on the study by students of medical biology, biological and bioorganic chemistry, histology, physiology and pathological physiology, human anatomy and pathomorphology, propaedeutic educational components of the therapeutic profile, pharmacology, radiology, etc.

**Necessities:** The educational component "Nursing in neurology" is fruitfully integrated with other clinical educational components: internal medicine, infectious diseases, neurosurgery, oncology, psychiatry, medical genetics, etc.

### **The purpose and tasks of the educational component**

**1.1. the purpose** the study of the educational component is the creation of students of education a holistic idea of the peculiarities of the structure and functioning of various part of the nervous system, mastering the method of researching the neurological status, studying etiopathogenetic features, clinical manifestations, differential diagnostic signs, features of evaluating the results of research and modern directions and algorithms for the treatment of various diseases of the nervous system systems.

### 1.2. Task:

- improve knowledge about anatomical and functional features and main syndromes lesions of the pyramidal, extrapyramidal, cerebellar, sensory systems, cranial nerves, integrative systems of the brain and autonomic nervous system;
- to master the method of neurological status research;
- familiarize yourself with the main research methods in neurology (EEG, ultrasound of blood vessels of the brain, ENMG, evoked potentials, CT, MRI, etc.), their advantages and diagnostic capabilities;
- get acquainted with the peculiarities of the assessment of research results in vascular, infectious, demyelinating, hereditary-degenerative and other diseases of the nervous system,
- to learn examining patients with neurological pathology with compilation of medical history, establishment of topical and clinical neurological diagnoses;
- to study the etiology, pathogenetic features, clinical manifestations, diagnostic and differential diagnostic signs, modern trends and treatment algorithms various diseases of the nervous system.

### 1.3. Competencies and learning outcomes

<b>1.3.1. The study of the academic discipline ensures the acquisition of competences by the students of education</b>	
Integral competence	A bachelor of nursing is able to solve practical problems and tasks of activities in the field of health care with the application of provisions, theories and methods of fundamental, medical and clinical sciences in conditions of complexity and uncertainty.
General competences (CG)	CG 03. Ability to abstract thinking, analysis and synthesis CG 04. Ability to apply knowledge in practical situations CG 05. Knowledge and understanding of the subject area and understanding professional activity CG 10. Ability to make informed decisions
Professional competences (FC)	FC 01. Ability to apply professional and legal standards in everyday professional practice. FC 06. Ability to effectively apply a set of professional acquirement (skills), medical devices, interventions and actions in assessing the functional state of patients/clients, preparing them for diagnostic studies and taking biological material for laboratory studies. FC 12. The ability to navigate in the determination of group belonging medicines, features of their pharmacokinetics and pharmacodynamics. FC 13. The ability to identify the relationship between clinical manifestations of diseases and the results of additional research methods.

### 1.3.2. The study of the academic discipline ensures that students acquire the following program learning outcomes:

- PLO 1. Conduct nursing subjective and objective examination of various organs and systems of the patient and evaluate the received data.  
In the conditions of healthcare institution (HCI) and at home, by communicating with patients of different age groups, their relatives or close relatives of a sick child and his parents, be able to collect complaints, medical history, and life history. Allergological anamnesis, epidemiological anamnesis, evaluate anamnestic data.
- PLO 2. Conduct nursing diagnosis: identify and assess problems the patient

In the conditions of HCI, at home, predictable circumstances, to be able to identify the real problems of the patient, assess their priority and establish a nursing diagnosis.

PLO 3. Plan nursing interventions.

In the conditions of health care, at home and under unforeseen circumstances, be able to make a plan

nursing interventions to solve real and related problems of patients of different ages.

PLO 4. Monitoring the work and condition of junior medical staff inventory

In terms of HCI, in accordance with job duties, in order to comply with the sanitary and anti-epidemic regime, to be able to:

- to conduct training of junior medical personnel on issues of functional performance responsibilities and labor protection; monitor compliance with safety rules by junior medical personnel;
- monitor the work of junior medical staff; control the implementation of the rules of the internal procedure by staff and patients; monitor compliance with measures of sanitary and hygienic regime in wards and medical offices.

PLO 5. Carry out nursing administration.

In terms of HCI, in order to implement organizational and managerial competencies, be able:

- make management decisions, ensure their implementation based on the application of nursing management models;
- to ensure the implementation of orders and resolutions on health protection issues;
- master the functional duties of the head of nursing services;
- know the procedure for licensing and accreditation of medical and preventive medicine institutions, laboratories of various profiles, etc.

PLO 6. To ensure a healthy microclimate in the team. Using principles

nursing ethics and deontology, rules of interpersonal communication with the aim of creating a favorable psychological microclimate, to be able to:

- communicate with the patient and members of his family or close environment, medical staff;
- solve ethical and deontological problems in the process of working with the patient and his family members; consider and analyze professional mistakes in the team; conduct training for junior and technical personnel.

PLO 7. Participate in monitoring of healthy and sick population, rehabilitation and dispensary supervision.

In the conditions of HCI, at home and in the community, using the current orders of the Ministry of Health of Ukraine, in order to form, preserve and improve the health of the adult and children's population, be able to:

- keep records of dispensary population groups;
- to calculate and analyze statistical indicators of dispensation efficiency;
- to conduct explanatory work among patients of different dispensary groups;
- keep records of health groups;
- calculate and evaluate individual indicators and indicators of the complex effect of the microclimate on the human body;
- determine the stages of medical and social rehabilitation of the patient, tasks for each stage;
- make a complex of rehabilitation measures depending on the profile, course, period of the disease or injury;
- conduct a census of the child population.

PLO 8. To perform medical manipulations in order to ensure a sanitary and anti-epidemic regime.

PLO 12. It is necessary to perform medical manipulations for the purpose of carrying out measures regarding stabilization of the functional state of the body.

PLO 14. To be able to prepare the patient, collect and direct biological material for laboratory and instrumental research.  
 PLO 15. To provide emergency medical care based on the diagnosis urgent condition.  
 PLO 20. Appropriate medical documentation should be kept

**1.3.3. The study of the academic discipline ensures that students acquire the following social skills (soft skills):**

- communication skills
- interpersonal skills
- research skills
- adaptability
- emotional intelligence

**2. INFORMATION VOLUME OF THE EDUCATIONAL DISCIPLINE**

Name of indicators	Field of knowledge, direction of training, educational and qualification level	Characteristics of the academic discipline
		intramural form of education
Number of credits - 3.0	Branch of knowledge 22 "Health care"	Selective
The total number of hours is 90	Specialty: 222 "Nursing"	<b>Year of preparation:</b> 3st
		<b>Semester</b>
		<b>Lectures</b> 0 hours
		<b>Practical, seminar</b> 36 hours
Hours for daytime (or evening) study: classrooms - 36 of independent student work - 54	Education level: First (undergraduate)  EPP "Nursing"	<b>Laboratory</b> 0 hours
		<b>Independent work</b> 54 hours
		<b>Individual tasks:</b> Type of control: <b>test</b>

**2.1 Description of the discipline**

**Topics of lectures**

No s/p	Topic name	Number hours	Types of lectures
Total lecture hours			

### Topics of practical classes

No s/p	Topic name	Number hours	Teaching methods	Forms of control
1	Principles of the structure and functioning of the nervous system. Concept of reflex, reflex arc. System of voluntary and involuntary movements, system of coordination. Anatomical and physiological data, research methods, symptoms of the lesion.	4	story-explanation, conversation, demonstration, presentation	oral survey; creative tasks
2	Sensory system (anatomical and physiological data, research methods, symptoms of damage). Cranial nerves (anatomical and physiological data, research methods, symptoms of damage).	4	story-explanation, conversation, demonstration, presentation	oral survey; creative tasks
3	Autonomic nervous system. Cortical functions. Anatomical and physiological data, research methods, symptoms of the lesion. Functional and laboratory research methods in neurology. Peculiarities of patient preparation.	4	story-explanation, conversation, demonstration, presentation Work in pairs	oral survey; creative tasks, practical skills
4	Headache. Classification, pathogenesis, differential diagnosis and treatment. Vascular diseases of the brain and spinal cord. Peculiarities of care for patients in the acute and recovery periods of a stroke.	4	story-explanation, conversation, demonstration, presentation Work in pairs	oral survey; creative tasks, practical skills
5	Infectious lesions of the nervous system. Peculiarities of care and epidemiological monitoring of patients with contagious infections with damage to the nervous system. Demyelinating diseases of the nervous system.	4	story-explanation, conversation, demonstration, presentation Work in pairs	oral survey; creative tasks, practical skills
6	Epilepsy and non-epileptic paroxysmal states. Differential diagnosis and emergency care.	4	story-explanation, conversation, demonstration, presentation Work in pairs	oral survey; creative tasks, practical skills
7	Traumatic brain and spinal injury. Peculiarities of patient care and transportation. Diseases of the peripheral nervous system.	4	story-explanation, conversation, demonstration, presentation	oral survey; creative tasks, practical skills
8	Somatoneurological syndromes. Hereditary and degenerative diseases of the nervous system.	4	story-explanation, conversation, demonstration, presentation	oral survey; creative tasks
9	Medicines used in neurology. Practical skills. Credit class.	4	Work in pairs	Test control, oral survey
Total hours of practical classes		36		

### Independent work

No s/p	Topic name	Number hours	Teaching methods	Forms of control
1	Principles of the structure and functioning of the nervous system. Concept of reflex, reflex	2	Preparation of the synopsis, design of schemes, tables,	oral survey; checking



	arc. Methods of studying innate reflexes.		drawings, preparation of abstracts	abstracts, essays
2	System of voluntary and involuntary movements, system of coordination. Anatomical and physiological data, research methods, symptoms of the lesion.	2	Preparation of the synopsis, design of schemes, tables, drawings, preparation of abstracts	oral survey; checking abstracts, essays
3	Sensory system, cranial nerves. Anatomical and physiological data, research methods, symptoms of the lesion.	2	Preparation of the synopsis, design of schemes, tables, drawings, preparation of abstracts	oral survey; checking abstracts, essays
4	Autonomic nervous system. Cortical functions. Anatomical and physiological data, research methods, symptoms of the lesion.	2	Preparation of the synopsis, design of schemes, tables, drawings, preparation of abstracts	oral survey; checking abstracts, essays
5	Functional and laboratory research methods in neurology. Peculiarities of patient preparation.	2	Preparation of the synopsis, preparation of essays	oral survey; checking abstracts, essays
6	Headache. Classification, pathogenesis, differential diagnosis and treatment.	2	Preparation of the synopsis, preparation of essays	oral survey; checking abstracts, essays
7	Vascular diseases of the brain and spinal cord. Peculiarities of care for patients in the acute and recovery periods of a stroke.	2	Preparation of the synopsis, preparation of essays	oral survey; checking abstracts, essays
8	Epilepsy and non-epileptic paroxysmal states. Differential diagnosis and emergency care.	2	Preparation of the synopsis, preparation of essays	oral survey; checking abstracts, essays
9	Infectious lesions of the nervous system. Peculiarities of care and epidemiological monitoring of patients with contagious infections with damage to the nervous system.	2	Preparation of the synopsis, preparation of essays	oral survey; checking abstracts, essays
10	Poliomyelitis. Acute myelitis. Neurosyphilis. Neurological manifestations of polymyositis-dermatomyositis. Damage to the nervous system in the presence of HIV infection. Tuberculosis of the nervous system. Features of care and prevention.	4	Preparation of the synopsis, preparation of essays	oral survey; checking abstracts, essays
11	Demyelinating diseases of the nervous system.	2	Preparation of the synopsis, preparation of essays	oral survey; checking abstracts, essays
12	Brain and spinal injury. Peculiarities of patient care and transportation.	4	Preparation of the synopsis, preparation of essays	oral survey; checking abstracts, essays
12	Diseases of the peripheral nervous system.	4	Preparation of the synopsis, preparation of essays	oral survey; checking abstracts, essays
13	Somatoneurological syndromes.	4	Preparation of the synopsis, preparation of essays	oral survey; checking abstracts, essays
14	Hereditary and degenerative diseases of the nervous system.	4	Preparation of the synopsis, preparation of essays	oral survey; checking abstracts, essays

				essays
15	Professional and household neurointoxication. Damage to the nervous system under the influence of physical factors.	4	Preparation of the synopsis, preparation of essays	oral survey; checking abstracts, essays
16	Medicines used in neurology.	2	Preparation of the synopsis, preparation of essays	oral survey; checking abstracts, essays
17	The main principles on labor protection and the peculiarities of maintaining medical documentation.	4	Preparation of the synopsis, preparation of essays	oral survey; checking abstracts, essays
18	Practical experience. Credit class.	4	Preparation of the synopsis, work in pairs	test control, oral survey
Total hours of independent work of the acquirer		54		

### 3. Evaluation criteria

3.1. The evaluation of the educational success of education seekers is carried out on the basis of the current "Instructions for evaluating the educational activity of education seekers of the KHNMU.

#### **Organization of current control.**

#### ***Assessment of general educational activity (hereinafter - GEA)***

General educational activity (GEA) is the educational activity of the student during the entire period of studying the discipline. GEA is considered completed if the applicant has completed all missed classroom classes and lectures, and the average score for all PC topics is equal to 3 points or higher. GEA points for disciplines with the "credit" form of control are calculated as the arithmetic average of PC points for all topics of all semesters, throughout the entire period of study of the discipline (to the nearest hundredth) according to table 2 "Recalculation of the average grade for the current control into a multi-point scale (for disciplines , ending with a counter)", automatically within the functionality of the electronic journal of the ASU. GEA is determined in points from 120 to 200.

**Elimination of academic debt.** Missed practical classes (both classroom and remote) are subject to compulsory work-up. Practice is carried out either by the teacher of the group or by the teacher on duty, a remote form of practice is allowed (by prior agreement). Completion of a missed class within a period of up to 1 month from the moment of missing is carried out free of charge, if the period exceeds 1 month - upon application, with the permission of the dean's office, which decides the form of completion (free or paid).

#### ***Assessment of individual tasks of the student of education (hereinafter - ISE)***

Individual tasks of the student of education from the educational component contribute to a more in-depth study of the theoretical material by the student of education, formation of skills of using knowledge to solve relevant practical tasks.

The deadlines for receiving, completing and defending individual assignments are determined by the schedule developed by the department for each semester. PPE is performed

by the student independently with the necessary consultations from a scientific and pedagogical worker. It is allowed to perform ISE of a complex topic by several applicants.

PPE are evaluated in points (no more than 10), which are added to the points obtained for the CIS upon completion of the study of the discipline.

**The total sum of points for the GEA and ISE cannot exceed 200 points.**

### *Assessment of independent work of education seekers*

When preparing for each practical lesson, the student must carry out independent work, which is specified in the description of the discipline. Assessment of independent work is carried out according to the types of control specified in the description of the discipline and is carried out during the practical session.

Mastery of topics that are presented only for independent work is checked during final classes.

### *Test*

Discipline credit is a process during which the following are checked for the course (semester):

- level of theoretical knowledge;
- development of creative thinking;
- skills of independent work;
- competences - the ability to synthesize the acquired knowledge and apply it in solving practical tasks.

The assessment is carried out by the teacher of the academic group at the last class of the semester.

If the credit is not passed, the dates of retaking are set during the vacation, before the beginning of the next semester.

### *Calculation method:*

1. The solution of the package of test tasks is carried out at the last lesson in the semester, in the amount of at least 30 tests. The evaluation criterion is 90.5% of correctly solved tasks, "made - did not make".

2. Assessment of the assimilation of practical skills and theoretical knowledge in all subjects of the discipline on the day of assessment.

### *Evaluation of the educational component*

During the assessment of mastery of each educational topic of the educational component (TEC) and the final lesson (FL), the student is given a grade according to the traditional 4-point system: "excellent", "good", "satisfactory" and "unsatisfactory".

Evaluation of the educational component is defined as the arithmetic average of traditional grades for each lesson and software, rounded to 2 decimal places and converted to a multi-point scale according to Table 2 "Recalculation of the average grade for the current activity into a multi-point scale (for disciplines ending with credit)", automatically in within the functionality of the ASU electronic log. OD is determined in points from 120 to 200.

**Applicants who were not admitted to the test or did not complete it have the right to liquidate the current academic debt and retake the SC within the current semester, as well as during the winter or summer vacations after the end of the corresponding semester but before the beginning of the next one.**

**The evaluation of the student's success in the discipline is a ranking** and is presented on a multi-point scale as the average arithmetic assessment of mastering the relevant sections and is defined according to the ECTS system and the traditional scale adopted in Ukraine.

### 3.2. Questions for credit:

1. The main stages of the development of the nervous system.
2. Anatomical and topographic *зфкеи* of the nervous system.
3. Basic principles of nervous system functioning.
4. Reflex apparatus of the spinal cord. Reflex, reflex arc. Unconditioned reflexes.
5. Tendon and periosteal reflexes, arcs of their closure.
6. Cortico-spinal and cortico-nuclear pathways.
7. Central (spastic) paralysis.
8. Peripheral (flabby) paralysis. Pathogenesis of atony, areflexia, atrophy.
9. Topical diagnosis of the pathology of voluntary movements.
10. Alternating syndroms. Syndromes of damage to the pedicles of the brain, ponto-cerebellar angle, varolia pont.
11. Syndromes of damage to the motor path at different levels of the spinal cord.
12. Extrapyramidal system, anatomical features, functions.
13. Parkinsonism syndrome, biochemical mechanisms of pathogenesis.
14. Types of hyperkinesis.
15. Cerebellum, anatomical and physiological features, lesion syndromes.
16. Types of ataxia.
17. Sensitivity. Types of sensitivity, types of sensitive disorders.
18. Types of sensitivity disorders. Braun-Secard syndrome.
19. Anatomical and physiological data, research methodology, syndromes of damage to I-XII pairs of cranial nerves.
20. Central and peripheral paresis of the facial nerve.
21. Bulbar and pseudobulbar syndromes.
22. Alternating syndromes.
23. Suprasegmental and segmental part of the autonomic nervous system, their functions, syndromes of damage.
24. Bernard-Horner syndrome.
25. Cortex of large hemispheres, cytoarchitectonic fields, lesion syndromes.
26. Agnosia, apraxia, aphasia.
27. Speech disorders (dysarthria, aphasia).
28. Cerebrospinal fluid formation, the composition of cerebrospinal fluid in the norm, its changes in meningitis, tumors, hemorrhagic stroke, tuberculosis.
29. Clinic of meningeal syndrome.
30. Electrophysiological research methods.
31. Methods of neuroimaging in the neurological diseases.
32. Ultrasound diagnostics methods in the neurological diseases.
33. Blood supply of the brain and spinal cord.
34. Classification of vascular diseases of the nervous system.
35. Variants of cerebral vascular crises.
36. Syndromes of manifestation of transient ischemic attacks.
37. Transient disorders of cerebral circulation.
38. Hemorrhagic stroke (parenchymal and subarachnoid hemorrhage).
39. Ischemic (thrombotic and non-thrombotic) strokes.
40. Principles of undifferentiated and differentiated treatment of strokes.
41. Spinal strokes.

42. Stroke prevention.
43. Modern classification of paroxysmal conditions in the clinic of nervous diseases.
44. Pathogenetic essence of epilepsy, classification of epileptic attacks, principles of differentiated treatment.
45. Epileptic status, clinic, diagnosis, treatment.
46. Non-epileptic paroxysmal states - convulsive and non-convulsive.
47. Vegetative-vascular paroxysms.
48. Syncopal states.
49. Cephalgia-pathogenetic mechanisms of occurrence, clinic, diagnosis, treatment.
50. Migraine: pathogenesis, clinic, treatment.
51. Insomnia, hypersomnia.
52. Basic clinical syndromes and principles of treatment in case of exogenous intoxications.
53. Stages of damage to the nervous system in acute and chronic radiation sickness.
54. Vibration disease.
55. Closed craniocerebral injury, concussion, contusion, compression of the brain. Emergency aid.
56. Spinal injury.
57. Classification, syndromes of manifestation of tumors of the brain and spinal cord. Changes in cerebrospinal fluid.
58. Brain abscesses, clinical syndromes, differential diagnosis.
59. Meningitis (purulent-primary, secondary; serous).
60. Arachnoiditis (adhesive, cystic), basal, convexity).
61. Encephalitis (primary, secondary)
62. Damage to the nervous system during flu, rheumatism. Herpetic lesions.
63. Poliomyelitis (clinical forms, stages, diagnosis, treatment, prevention).
64. Acute myelitis.
65. Amyotrophic lateral sclerosis.
66. Neurosyphilis, early and late forms.
67. Neurological disorders of polymyositis-dermatomyositis.
68. Damage to the nervous system in the presence of HIV infection.
69. Tuberculosis of the nervous system.
70. Multiple sclerosis (etiopathogenesis, variants of the course, clinic, modern methods of treatment).
71. Parasitic diseases of the nervous system (cysticercosis, echinococcosis, toxoplasmosis).
72. Prion infections. Neuroberreliosis.
73. Classification of diseases of the peripheral nervous system.
74. Reflex vertebrogenic syndromes of the cervical, thoracic, and lumbar levels.
75. Root syndromes of cervical, thoracic, lumbar localization.
76. Trigeminal neuralgia.
77. Neuropathy of the facial nerve.
78. Variants of shoulder plexopathies.
79. Neuropathies of the ulnar, radial, median, tibial, and fibular nerves.
80. Compression-ischemic syndromes. Tunnel syndromes.
81. Polyneuropathies (infectious, toxic), modern methods of treatment.
82. Hypoxic-ischemic encephalopathy.
83. Children's cerebral palsy, clinical options, treatment.
84. Somatoneurological syndromes in diseases of the digestive tract, lungs, cardiovascular system, blood, endocrine diseases. Paraneoplastic syndrome.
85. Progressive muscular dystrophies are primary (myopathies) and secondary (amyotrophies).
86. Myotonia.
87. Myasthenia. Myasthenic syndromes. Paroxysmal myoplegia.
88. Hepatocerebral degeneration (Konovalov-Wilson disease).

89. Huntington's disease.
90. Modern biochemical aspects of Parkinson's disease and its treatment.
91. Muscular dystonias.
92. Spinocerebellar ataxias. Friedreich's hereditary ataxia.
93. Hereditary spastic paraplegia. Strümpel's disease.
94. Groups of drugs used in neurology.
95. Basic provisions of labor and peculiarities of maintaining medical documentation.

### **3.3. Individual tasks**

The department has approved the following types of individual tasks and their evaluation criteria:

- writing an essay on a current topic - 1 point (no more than 2 for both semesters);
- creation of a clinical case – 2 points (no more than 2 in one semester);
- writing abstracts for scientific and practical conferences - 5 points;
- writing a scientific article - 10 points;
- performance at the conference with a poster report - 5 points;
- performance at the conference with an oral presentation - 7 points (additional +3 points for a diploma of I-III degrees).

### **3.4. Rules for challenging the assessment**

In cases where the student of education does not agree with the assessment that was established for him based on the results of the final control of the discipline, he has the opportunity to submit an appeal in the name of the head of the department within the term and in the form specified in the "Regulations on the appeal of the results of the final control of the students of education of the KHNMU » approved by the Rector's Order dated September 30, 2020 No. 252.

## **4. Discipline policy**

The department welcomes qualified students of any race, national or ethnic origin, sex, age, disability, religion, sexual orientation, gender identity, veteran status, or marital status to all rights, privileges, programs, and activities, which are provided to university applicants.

Students are expected to attend all practical sessions. If they missed the class, it is necessary to complete it (according to the schedule on the information stand of the department).

Written and homework assignments must be completed in full and on time, if applicants have questions, they can contact the teacher in person or by e-mail, which the teacher will provide at the first practical session.

During the practical session, students are recommended to keep a summary of the session and maintain a sufficient level of silence. Asking questions to the teacher is absolutely normal.

### **Occupational Health**

At the first lesson of the course, the basic principles of labor protection will be explained by means of appropriate instruction. Everyone is expected to know where the nearest exit to the audience is, where the fire extinguisher is, how to use it, etc.

### **Behavior in the audience**

#### **Basic "yes" and "no"**

It is important for students to follow the rules of appropriate behavior at the university. These rules are general for everyone, they also apply to all professors and teaching staff and

employees, and fundamentally do not differ from generally accepted norms.

During classes it is allowed:

- leave the audience for a short time if necessary and with the teacher's permission;
- drink soft drinks;
- take photos of presentation slides;
- take an active part during the lesson.

**Prohibited:**

- to eat (with the exception of persons whose special medical condition requires otherwise - in this case, medical confirmation is required);
- smoke, use alcoholic and even low-alcohol drinks or narcotic drugs;
- speak obscenely or use words that insult the honor and dignity of colleagues and teaching staff;
- gaff;
- to cause damage to the material and technical base of the university (damage inventory, equipment; furniture, walls, floors, litter premises and territories);
- making noise, shouting or listening to loud music in the classrooms and even in the corridors during classes.

**Practical training**

Active participation during the discussion in the audience, students should be ready to understand the material in detail, ask questions, express their point of view, discuss. During the discussion, the following are important:

- respect for colleagues
- tolerance for others and their experiences,
- receptiveness and impartiality,
- the ability to disagree with an opinion, but respect the personality of the opponent/- who
- thorough reasoning of one's opinion and the courage to change one's position under the influence of evidence,
- self-expression, when a person avoids unnecessary generalizations, describes his feelings and formulates his wishes based on his own thoughts and emotions,
- mandatory acquaintance with primary sources.

A creative approach in its various manifestations is welcome. Applicants are expected to be interested in participating in city, all-Ukrainian and international conferences, competitions and other events related to the subject profile.

**Inclusive education**

At the Department of Neurology, favorable conditions have been created for the education of persons with special educational needs in accordance with the "Procedure for accompanying (providing assistance to) persons with limited physical capabilities, elderly citizens, and other groups of the population with limited mobility during their stay on the territory (premises) of KhNMU."

In order to solve all the necessary questions and establish individual requirements, students with special needs must meet with the teacher or notify him before the start of classes, the head of the group can do this at the student's request. If you have any questions, please contact the teacher.

## 5. Academic integrity

The Department of Neurology maintains zero tolerance for plagiarism.

In its activities, the department adheres to the main principles that are reflected in the "Code of Academic Integrity of KhNMU". Students are expected to be willing to constantly improve their academic writing skills. In the first classes, information activities will be held on what exactly is considered plagiarism and how to correctly conduct a research and scientific search.

## 6. Recommended literature

### Educational literature

1. Neurology: a textbook / I. A. Grigorova [and others]; ed.: IA Grigorova, LI Sokolova. - K.: Medicine, 2020. - 640 p.
2. Clinical Neurology / Edited by Gryb VA – K.: Publishing house Medknyha, 2017.- 288p.
3. Neurology / Hryhorova IA, Sokolova LI, Herasymchuk RD et al. - Kyiv: AUS Medicine Publishing, 2017. - 624

### Auxiliary:

1. Neurology: an atlas-reference/ A.L. Sidelkovsky - K: Pablysh Pro, 2020. - 856 p.
2. Practical neurology according to Mumenthaler/ Marko Mumenthaler, Heinrich Mattle – BHV, 2021.- 520 p.
3. Research methods of a neurological patient / Edited by L.I. Sokolova, T.I. Ilyasha - M:2020. - 144 p.
4. Lange Clinical Neurology, 10th Edition /Roger P.Simon, Michael J.Aminoff, David A.Grenberg/ - LANGE, 2020. – 448 p.
5. Oxford American Handbook of Neurology / Edited by Sid Gilman. – Oxford University Press. - 2010. – 616 p.

## 7. Information resources

1. **Link to the course page in Moodle:** <http://distance.knmu.edu.ua/enrol/index.php?id=4217>
2. American Academy of Neurology (AAN) - <http://www.aan.com>
3. Archives of Neurology - <http://archneur.ama-assn.org/>
4. Brain - <http://brain.oupjournals.org/>
5. Neurology and Clinical Neurophysiology - <http://mitpress.mit.edu/e-journals/CONE>
6. Stroke - <http://www.strokeaha.org/>
7. Atlas of the nervous system (MRI, CT, nuclear medicine) - <http://www.med.harvard.edu/AANLIB/home.html>
8. Interactive neurology tests - [http://medweb.bham.ac.uk/http/caa/cases/cases.caselist.fcgi\\$neurology](http://medweb.bham.ac.uk/http/caa/cases/cases.caselist.fcgi$neurology)
9. Brief textbook on hereditary and congenital neuromuscular diseases (University of Washington) - <http://www.neuro.wustl.edu/neuromuscular/syaltbrain.html>
10. Neuroanatomy course - <http://www.meddean.luc.edu/lumen/MedEd/Neuro/nIBSs/nIBSmms.html>
11. Materials for the exam on basic clinical skills in neurology - <http://www.medinfo.ufl.edu/year1/bcs/clist/neuro.html>