

**SYLLABUS OF THE EDUCATIONAL COMPONENT
GENERAL MEDICAL TRAINING – NEUROLOGY**

Specialty: **221 " Dentistry"**

Educational-Professional Program: **Dentistry**

Course Code in the Educational Program: **EC 34**

Level of Higher Education: **Second (Master's)**

Mode of Study: **Full-time (day)**

Year of Study: **4**

Semester(s): **VII (Autumn) or VIII (Spring)**

Type of Educational Component (EC): **Required**

Academic Year: **2027-2028**

Credits: **0.75 ECTS (22 hours)**

Learning Activities: **lectures, practical classes, independent work, consultations**

Final Assessment: **Differentiated credit test**

Prerequisites: **EC7, EC13, EC 18, EC 19, EC 20, EC 32**

Department/Unit: **Department of Neurology, 4 O. Shpeyera St., Branch University Hospital of KhNMU**

Course Coordinator: **Prof., Nataliya Nekrasova**

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Course Page in the KhNMU Distance Learning System (Moodle):

<https://distance.knmu.edu.ua/course/view.php?id=3633>

COURSE DESCRIPTION

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

COURSE GOAL: To enhance knowledge of the structure and function of different parts of the nervous system, master the technique of neurological status examination, study the etiopathogenetic features, clinical manifestations, and differential diagnostic signs of various nervous system diseases, and understand the specifics of providing dental care to patients with nervous system diseases and delivering emergency care for urgent conditions.

LEARNING OUTCOMES:

Upon completion of the course, students will be able to:

- Know the anatomical and functional features and main syndromes of lesions of the pyramidal, extrapyramidal, cerebellar, sensory, cranial nerve, integrative brain, and autonomic nervous systems.
- Be proficient in the technique of neurological status examination.
- Identify the leading symptoms and syndromes of the most common neurological pathologies.
- Provide emergency medical care for urgent conditions in the neurology clinic.
- Plan the management strategy for a dental patient with neurological pathology.
- Effectively communicate their own ideas and research findings to both professional and non-professional audiences.

COURSE CONTENT**List of lecture topics (4 hours):**

1. Pain and its differentiation. Headache.
2. Emergency conditions in neurology.

List of topics for practical sessions (9 hours):

1. Principles of the structure and function of the nervous system. Voluntary movements and their disorders. The pyramidal system. Symptoms of central and peripheral paresis. The extrapyramidal system and syndromes of its lesion. The cerebellum and syndromes of cerebellar

- lesion. The sensory system and symptoms of its lesion. Types and patterns of sensory impairment. Specifics of providing dental care to patients with nervous system diseases.
2. Pathology of cranial nerves I-XII. Localization of functions in the cerebral cortex. Lesion syndromes. Cerebrospinal fluid and its changes. Meningeal syndrome.
 3. Emergency conditions in neurology. Practical skills. Differentiated credit test.

List of topics for independent student work (9 hours):

1. Functional diagnostic methods for nervous system diseases.
2. Vascular diseases of the brain and spinal cord.
3. Infectious diseases of the nervous system.
4. Demyelinating diseases of the nervous system.
5. Neurological aspects of traumatic brain and spinal injury.

Independent work is aimed at deepening and consolidating theoretical knowledge obtained during classroom learning and contributes to the development of professional competencies. The results of independent work are subject to assessment and are included in the final assessment.

Consultations: Online, by prior registration on the course page in the Distance Learning System.

Teaching Methods: Lecture, practical exercises and work, solving case studies and scenarios.

ASSESSMENT

Current Academic Performance (CAP). Student performance is assessed in accordance with the Instructions for Assessing the Academic Activity of Higher Education Students at KhNMU (<https://knmu.edu.ua/documents/normatyvni-dokumenty-navchalnogo-proczesu/>). The grade for a practical or final session ranges from 2 to 5 points. Late submission of assignments without a valid reason will result in a grade reduction proportional to the delay. Assignments are checked within 24 hours. Grades are recorded in the electronic journal. Unsatisfactory grades must be retaken in accordance with the Regulations on the procedure for retaking academic classes by KhNMU students (https://knmu.edu.ua/wp-content/uploads/2021/05/polog_vidprac_zaniat.pdf).

At the end of the semester, the average semester grade is converted into a multi-point score (70-120 points) according to Table 1 of the Assessment Instructions (see above). The average CAP for the semester constitutes the General Academic Performance (GAP).

Individual Assignments (IA) are graded up to 10 points.

Final Assessment. A prerequisite for admission to the differentiated credit test is scoring a minimum of 70 points for the GAP. The grade for the differentiated credit test ranges from 50 to 80 points.

Course Grade (CG). $CG = GAP + IA + \text{Differentiated Credit Test}$.

Appeals of final assessment results are handled according to the established procedure at KhNMU (https://knmu.edu.ua/wp-content/uploads/2021/05/polog_apel_kontrol.pdf).

COURSE POLICIES

Recommendations for working on the course: Actively participate in all forms of class activities, dedicate 1-2 hours daily to independent study and preparation for classes, ask questions during classes, attend consultations, submit assignments on time, and complete all forms of assessment.

Class Attendance. Attendance at lectures and practical classes is mandatory. The dress code for in-person classes is a white medical coat. If you are more than 5 minutes late, you may not be admitted to the class. Missed classes are made up in accordance with the Regulations on the Procedure for Retaking Academic Classes by KhNMU Students

(https://knmu.edu.ua/wp-content/uploads/2021/05/polog_vidprac_zaniat.pdf).

Academic Integrity. KhNMU maintains a zero-tolerance policy towards any manifestation of academic dishonesty. Any violation of academic integrity principles will result in disciplinary action as established by KhNMU

(https://knmu.edu.ua/wp-content/uploads/2021/05/polog_ad-1.pdf).

The use of electronic gadgets and artificial intelligence tools is permitted only with the instructor's permission.

Policy for Students with Special Educational Needs. Students with special educational needs should contact the instructor to develop an individual educational trajectory.

Instructor's Response Time: 24 hours.

Technical Requirements for the Course:

- Access to a computer, laptop, tablet, or smartphone
- A corporate Google account with your own photo
- Proficiency with Google Workspace (Google Meet, Docs, Sheets, Slides, Forms) and Moodle

Technical Support: ACS (ev.shevtsov@knmu.edu.ua), Google (tehotdelknmu@gmail.com), Moodle (al.korol@knmu.edu.ua)

RECOMMENDED SOURCES

1. Adams and Victor's Principles of Neurology / Edited by Allan H. Ropper, Martin A. Samuels. — McGraw-Hill Education, 2020. — 1680 p.
2. Neurology: A Queen Square Textbook / Edited by Charles Clarke, Robin Howard, Martin Rossor. — Wiley-Blackwell, 2021. — 960 p.
3. Netter's Atlas of Neuroscience / David L. Felten. — Elsevier, 2020. — 496 p.
4. Neurology Secrets / Joseph S. Kass. — Elsevier, 2022. — 486 p.
5. Clinical Neurology and Neuroanatomy: A Localization-Based Approach / Aaron L. Berkowitz. — McGraw-Hill Education, 2017. — 336 p.
6. Oxford Handbook of Neurology / Edited by Hadi Manji, Neil Kitchen. — Oxford University Press, 2021. — 672 p.
7. Bradley's Neurology in Clinical Practice. Volume 1–6 / Edited by Robert B. Daroff et al. — Elsevier, 2021. — 5000 p.
8. Case Studies in Neurology / Kerry H. Levin. — Cambridge University Press, 2020. — 238 p.
9. Neurological Examination Made Easy / Geraint Fuller. — Elsevier, 2022. — 160 p.
10. Fundamentals of Neuroscience / Harvard University (online course). — edX platform, 2023. — Available online: <https://online-learning.harvard.edu/course/fundamentals-neuroscience>

Head of the Department of Neurology

Professor, Dr. of Med. Sci.



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