

Документ подписан простой электронной подписью
Информация о владельце:
ФИО: Ястребов Олег Александрович
Должность: Ректор
Дата подписания: 28.05.2026 13:00:45
Уникальный программный ключ:
ca953a0120d891083f939673078ef1a989dae18a

**Federal State Autonomous Educational Institution of Higher Education
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA
named after Patrice Lumumba
RUDN University**

Institute of Medicine

educational division (faculty/institute/academy) as higher education programme developer

COURSE SYLLABUS

Neurology, Medical Genetics, Neurosurgery

course title

Recommended by the Didactic Council for the Education Field of:

31.05.01 General Medicine

field of studies / speciality code and title

**The course instruction is implemented within the professional education
programme of higher education:**

General Medicine

higher education programme profile/specialisation title

2026

1. COURSE GOAL(s)

The goal of the course “**Neurology, Medical Genetics, Neurosurgery**” is to equip students with basic knowledge and skills in clinical neurology and neurosurgery regarding semiotics, topical diagnosis, nosology, paraclinical tests, diagnostics and differential diagnostics, treatment and prevention of the most common disorders of the nervous system.

2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course (module) “**Neurology, Medical Genetics, Neurosurgery**” is aimed at the development of the following competences /competences in part: : GC-1.1; GPC-4; GPC-5.3; GPC-7; PC-1; SPC-2; SPC-3.

Table 2.1. List of competences that students acquire through the course study

| Competence code | Competence descriptor | Competence formation indicators (within this course) |
|------------------------|---|--|
| GC-1. | The ability to implement critical analysis of problem situations based on systems approach, develop an action strategy | GC-1.1. Analysing scientific and technical literature and regulatory documents of medical institutions. |
| | | GC-1.2. Assessing in a critical way the reliability of information sources, working with contradictory information from different sources. |
| GPC-4. | The ability to use medical devices provided for by the procedure for medical care, and conduct patient examinations in order to determine a diagnosis | GPC-4.1. Being able to use medical devices in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, care taking into account the medical care standards. |
| | | GPC-4.2. Being able to assess the effectiveness and safety of medical devices. |
| GPC-5. | The ability to assess morpho-functional, physiological conditions and pathological processes the human body to solve professional tasks | GPC-5.1. Mastering the algorithm of clinical, laboratory and functional diagnosis when dealing with professional tasks. |
| | | GPC-5.2. Being able to evaluate the results of clinical, laboratory and functional diagnosis when dealing with professional tasks. |
| | | GPC-5.3. Being able to determine morpho-functional, physiological states and pathological processes of the human body. |
| GPC-7 | The ability to prescribe treatment and monitor its efficacy and safety | GPC-7.1. Mastering skills in the methods of general clinical examination, interpretation of laboratory results, instrumental diagnostic methods. |
| | | GPC-7.2. Being aware of the algorithm for making a preliminary diagnosis with the subsequent referral of the patient to the relevant medical specialist. |

| | | |
|-------|--|--|
| SPC-1 | The ability to provide emergency or urgent medical care to a patient | SPC-1.1. Being able to assess the condition of a patient who needs emergency or urgent medical care. |
| | | SPC-1.2. Being able to recognize conditions that arise from sudden acute diseases, exacerbation of chronic diseases without obvious signs of a threat to the patient's life and which require emergency medical care. |
| | | SPC-1.3. Being able to provide emergency medical care to patients with sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life. |
| | | SPC-1.4. Being able to recognize conditions which pose a threat to the patient's life, including conditions of clinical death (cessation of the vital bodily functions (blood circulation and/or respiration) which require emergency medical care. |
| | | SPC-1.5. Being able to provide emergency medical care to patients in conditions which pose a threat to the patient's life, including clinical death (cessation of the vital bodily functions (blood circulation and/or respiration). |
| | | SPC-1.6. Being able to use drugs and medical devices when providing medical care in emergency or urgent forms. |
| SPC-2 | The ability to examine a patient in order to determine a diagnosis | SPC-2.1. Mastering the skills to collect complaints, anamnesis of the patient's life and disease, as well as conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation). |
| | | SPC-2.2. Being able to make a preliminary diagnosis and make up a plan of laboratory and instrumental examinations of a patient. |
| | | SPC-2.3. Being able to refer a patient to a laboratory examination in case there are medical indications in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the medical care standards. |

| | | |
|-------|--|---|
| | | SPC-2.7. Being able to carry out differential diagnosis with other diseases/conditions, including the urgent ones, as well as to make a diagnosis taking into account the current international statistical classification of diseases and problems related to health (ICD). |
| SPC-3 | The ability to prescribe treatment and monitor its efficacy and safety | SPC-3.1. Being able to develop a treatment plan for a disease or condition taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care. |
| | | SPC-3.2. Being able to prescribe medicinal drugs, medical devices and medical nutrition taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care. |
| | | SPC-3.3. Being able to prescribe non-drug treatment taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care. |
| | | SPC-3.4. Being able to assess the efficacy and safety of the use of drugs, medical devices, medical nutrition and other treatment methods. efficacy and safety of treatment. |

3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The course refers to the core/variable/elective* component of (B1) block of the higher educational programme curriculum.

* - Underline whatever applicable.

Within the higher education programme students also master other (modules) and / or internships that contribute to the achievement of the expected learning outcomes as results of the course study.

Table 3.1. The list of the higher education programme components/disciplines that contribute to the achievement of the expected learning outcomes as the course study

results

| Competence code | Competence descriptor | Previous courses/modules* | Subsequent courses/modules* |
|-----------------|--|--|---|
| GC-1 | The ability to carry out a critical analysis of problem situations based on a systematic approach, to develop an action strategy | Biology; Anatomy, Pathological Anatomy, Pathophysiology, Clinical Pathophysiology; | Infectious diseases, Hospital therapy, Traumatology and orthopedics |
| GPC-5. | The ability to assess morpho-functional, physiological conditions and pathological processes in the human body to solve professional tasks | anatomy, pathological anatomy, physiology, pathological physiology, pharmacology | infectious diseases, hospital surgery, hospital hospital surgery, therapy, psychiatry, traumatology, oncology |
| GPC-7 | The ability to prescribe treatment and monitor its efficacy and safety | anatomy, pathological anatomy, physiology, pathological physiology, pharmacology | infectious diseases, hospital surgery, hospital hospital surgery, therapy, psychiatry, traumatology, oncology |
| SPC-1 | The ability to provide emergency or urgent medical care to a patient | anatomy, pathological anatomy, physiology, pathological physiology, pharmacology | infectious diseases, hospital surgery, hospital hospital surgery, therapy, psychiatry, traumatology |
| SPC-2 | The ability to examine a patient in order to determine a diagnosis | anatomy, pathological anatomy, physiology, pathological physiology, pharmacology | infectious diseases, hospital surgery, hospital hospital surgery, therapy, psychiatry, traumatology |
| SPC-3 | The ability to rescribe treatment and monitor its efficacy and safety | anatomy, pathological anatomy, physiology, pathological physiology, pharmacology | infectious diseases, hospital surgery, hospital hospital surgery, therapy, psychiatry, traumatology |

4. COURSE WORKLOAD AND ACADEMIC ACTIVITIES

The total workload of the course “Neurology, Medical Genetics, Neurosurgery” is 5 credits (216 academic hours).

*Table 4.1. Types of academic activities during the periods of higher education programme mastering (**full-time training**)**

| Type of academic activities | Total academic hours | Semesters/training modules | | | |
|--|----------------------|----------------------------|------------|------------|--|
| | | 7 | 8 | | |
| <i>Classroom learning</i> | 216 | 108 | 108 | | |
| Including: | | | | | |
| Lectures | 17 | 17 | | | |
| Lab work (LW) | 124 | 68 | 64 | | |
| Seminars (workshops/tutorials) | | | | | |
| <i>Self-study (ies), academic hours</i> | 72 | 23 | 44 | | |
| <i>Evaluation and assessment (exam or pass/fail grading)</i> | | | | | |
| Course workload | academic hours | 216 | 108 | 108 | |
| | credits | 5 | 3 | 2 | |

5. COURSE CONTENTS

Table 5.1. Course contents and academic activities types

| Course module title | Course module contents (topics) | Academic activities types |
|---------------------------------------|---|---------------------------|
| Section 1. Propaedeutics in neurology | Topic 1.1. Introduction. Study of motor functions | LC, LW |
| | Topic 1.2. Study of the functions of motor cranial nerves | LC, LW |
| | Topic 1.3. Investigation of superficial and deep sensitivity and sensitivity disorders. Tension symptoms and meningeal symptoms. Study of pain syndrome. Symptoms and meningeal symptoms. Study of pain syndrome. | LC, LW |
| | Topic 1.4. Methods of research and symptoms of damage to the sensory organs | LW |
| | Topic 1.5. Symptoms and methods of research of aphasia, apraxia, agnosia. | LC, LW |
| | Topic 1.6. Symptoms and methods of studying the coordination of movements. | LC, LW |
| | Topic 1.7 Research of the autonomic nervous system | LC, LW |
| | Topic 1.8. The main syndromes of lesions of the brain and spinal cord | LW |
| | Topic 1.9 Somato-neurological and neurosomatic syndromes | LC, LW |

| | | |
|--------------------------------|---|---------------|
| | Topic 2.0. Paraclinical research methods in neurology | LW, S |
| Section 2 Neurosurgery | Topic 2.1 Neurosurgery. Introductory lesson. Methods of examination in neurosurgery | LC, LW |
| | Topic 2.2 Tumors of the central nervous system | LC, LW |
| | Topic 2.3 Vascular diseases of the brain in neurosurgery | LC, LW |
| | Topic 2.4 Traumatic brain injury | LC, LW |
| Section 3 Private neurology | Topic 5.1 Vascular diseases of the brain and spinal cord. Modern representation, classification | LC, LW |
| | Topic 5.2 Vascular diseases of the brain and spinal cord. Diagnostics. Treatment. | LC, LW |
| | Topic 5.3 Infectious and parasitic diseases of the nervous system. Treatment and prevention | LC, LW |
| | Topic 5.4 Diseases of the peripheral nervous system. Treatment and prevention. | LC, LW |
| | Topic 5.5 Chronic and chronically progressive diseases | LC, LW |
| | Topic 5.6 Demyelinating diseases of the nervous system | LC, LW |
| | Topic 5.7 Hereditary and degenerative diseases of the nervous system. Chromosomal diseases. | LC, LW |
| | Topic 5.8 Epilepsy and seizures | LC, LW |
| | Topic 5.9 Vegetative-endocrine diseases. neuroses | LC, LW |

*- filled in only for full-time education: LC - lectures; LW - laboratory work; S - seminars.

6. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

Table 6.1. Classroom equipment and technology support requirements

| Type of academic activities | Classroom equipment | Specialised educational / laboratory equipment, software, and materials for course study (if necessary) |
|------------------------------------|----------------------------|--|
|------------------------------------|----------------------------|--|

| | | |
|--------------|---|--|
| Lecture | Classroom for lecture is equipped with a set of specialized furniture; board (screen) and technical means of multimedia presentations | Classroom for conducting lecture and seminar classes, group and individual consultations, current control and intermediate certification. |
| Lab work | An auditorium for laboratory work, individual consultations, current control and intermediate certification, equipped with a set of specialized furniture and equipment. | A set of specialized furniture; technical means: ViewSonic PJD5153 multimedia projector, ACER EXTENSA EX2511G-31JN Core i3 136x768 laptop has Internet access. Software: Microsoft products (OS, office suite, including MS Office/Office 365, Teams, Skype) |
| Seminar | An auditorium for conducting seminar-type classes, group and individual consultations, current control and intermediate certification, equipped with a set of specialized furniture and technical means for multimedia presentations. | A set of specialized furniture; technical means: ViewSonic PX702HD multimedia projector, ACER EXTENSA EX2511G-31JN Core i3 136x768 laptop with Internet access. Software: Microsoft products (OS, office suite, including MS Office / Office 365, Teams, Skype) a list of specialized equipment, stands, visual posters, etc. |
| Self-studies | An auditorium for independent work of students (can be used for seminars and consultations), equipped with a set of specialized furniture and computers with access to the EIOS. | |

7. RESOURCES RECOMMENDED FOR COURSE STUDY

Main readings:

Students are required to attend classes, complete assignments within the framework of classroom and independent work using recommended textbooks and teaching aids, electronic educational resources, databases, information and reference and electronic search systems. During certification, the quality of stud

1. Neuroanatomy through clinical case by Hal.Blumenfeld, 2021.
2. Handbook of neurology edited by U.S. MARTINOV, MOSCOW 2020, 2023.

3. Guide to neurological history taking and examination. Garabova N.I., Burzhunova M.G., Strutsenko A.A., Nozdryukhina N.V. 2017
4. Glossary on neurology N.U. Nozdrukina, A.A. Strutsenko, N.I. Garabova, Burzhunova M.G.
5. Harrison's Principles of Internal Medicine. Neurology chapters.
6. Oxford Handbook of Neurology by Manji, H., [et al]. 2014.

Additional readings:

1. Adams and Victor's principles of neurology by Ropper, A. H., Samuels, M. A., Klein, J. P. 2022
2. Bradley's neurology in clinical practice by Daroff, R. B., [et al]. 2021.
3. The 5-minute neurology consult by Lynn, D. J., Newton, H. 2012.
4. Massachusetts General Hospital Handbook of Neurology. by Flaherty A.W., 2019.

Internet-(based) sources

1. RUDN ELS and third-party ELS, to which university students have access on the basis of concluded agreements:
 - RUDN Electronic Library System - RUDN EBS <http://lib.rudn.ru/MegaPro/Web>
 - ELS "University Library Online" <http://www.biblioclub.ru>
2. Databases and search engines:
 - electronic fund of legal and normative-technical documentation <http://docs.cntd.ru/>
 - Google search engine <https://www.google.ru/>
 - abstract database SCOPUS <http://www.elsevierscience.ru/products/scopus/>

3. Assessment and Evaluation Toolkit and Assessment & Grading System

Assessment and Evaluation Toolkit and Assessment & Grading System* for assessing the level of competence formation based on the results of mastering the discipline "Public Health and Healthcare" are presented in the Appendix to this Work Program of the discipline.

* - Assessment and Evaluation Toolkit and Assessment & Grading System are formed on the basis of the requirements of the relevant local normative act of the RUDN University.

DEVELOPERS:

Associate Professor of the
educational department of
Neurological diseases and
Neurosurgery



N.V. Nozdrukina

position, department

signature

name and surname

Head of the educational
department of Neurological
diseases and Neurosurgery



G.E. Chmutin

position, department

signature

name and surname

HEAD OF EDUCATIONAL DEPARTMENT:

Neurological diseases and

Neurosurgery

name of department



signature

G.E. Chmutin

name and surname

HEAD

OF HIGHER EDUCATION PROGRAMME:

Deputy Director of the Medical
Institute for General Medicine

position, department

signature

M.M. Azova

name and surname