

**MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION**  
**Federal State Budgetary Educational Institution of Higher Education**  
**"South Ural State Medical University"**  
**Ministry of Health of the Russian Federation**

**Pharmacology department**

**APPROVED BY:**

Acting rector, vice-rector  
of academic activities  
O.S. Abramovskikh

**SYLLABUS (COURSE MODULE)**  
Higher education level (Specialty)

**Discipline** – Б1.О.28 Pharmacology

**Specialty** – 31.05.01, General medicine

**Form of study:** full-time

**Course 3 Semester:** fifth and six

**The form of intermediate assessment:** exam

**Developed by:** Malkin M.P., senior lecturer of Pharmacology Department

The syllabus has been compiled in accordance with the requirements of the Federal State Educational Standard for Higher Education in the specialty 31.05.01 General Medicine, approved by Order of the Ministry of Education and Science of 08/12/2020 No. 988, taking into account the work functions of professional standards: "Medical doctor (district therapist)", approved by order of the Ministry of Labor of the Russian Federation dated 03/21/2017 No. 293n.

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## **1. REGULATORY FRAMEWORK**

1. Federal State Educational Standard of Higher education in the specialty 31.05.01 General Medicine, approved by the order of the Ministry of Science and Higher Education of the Russian Federation dated 12/08/2020 № 988;

2. Professional Standard "General Practitioner (District Therapist)", approved by the order of the Ministry of Labor and Social Protection of the Russian Federation from 21/03/2017 № 293n.

3. Quality management system Procedure 04 The regulation "About course module of the discipline, assessment and methodological materials on the discipline".

## **2. THE GOALS AND OBJECTIVES OF THE DISCIPLINE, ITS PLACE IN THE STRUCTURE OF THE EDUCATIONAL PROGRAM**

Discipline "Pharmacology" belongs to the obligatory part of educational plan of speciality "General Medicine".

The goal of mastering the discipline is to develop in the student understanding of principles of classification of the pharmacological preparations, to provide basic knowledge of dosage forms types and technologies of their manufacturing, rules of prescription of various classes of medicinal substances, revealing cellular targets and mechanisms of realization of the drug effects (pharmacodynamics), ways of metabolism, absorption and elimination of the drugs (pharmacokinetics), most important side effects, indications and contraindications for the usage of the medicine, thus providing the student an ability to select effective and safe medicinal support, necessary for treatment of acute and chronic health conditions in the field of general medical practitioner responsibility.

### **Course objectives:**

#### **A)**

|   |                                                                                                                                                                                                                     |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | To give the student knowledge of formalized documentation connected with prescription of medical substances of different classes (orders of Ministry of Health of Russian Federation, types of blanks for recepie). |
| 2 | To develop and master skills of making formalized prescribing for various dosage forms.                                                                                                                             |
| 3 | To form the skills of solving the quantitative tasks connected with the calculation of the amount of the medicinal substance for individual patient.                                                                |

**B)**

|   |                                                                                                                                                               |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | To give the student knowledge of formalized classification of medical substances.                                                                             |
| 2 | To form the vocabulary of medicines names and the terms, essential for describing pharmacological processes.                                                  |
| 3 | To develop and master understanding of cellular targets and mechanisms of action for the various classes and groups of medical substances.                    |
| 4 | To build the connection with action of the certain medicine and the response of the human body, either in parts of main and side effects of the said medicine |

**C)**

|   |                                                                                                                                                                                        |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | To give the student general knowledge of ways of absorption, distribution, metabolism and elimination of medical substances.                                                           |
| 2 | To form the understanding of the said process role in the resulting effect of the medical substance on the certain patient.                                                            |
| 3 | To develop and master understanding of the role of antidotes and various methods of elimination stimulation in the treatment of acute and chronic intoxications.                       |
| 4 | To build the connection with the metabolism of the certain medicine and the response of the human body, either in parts of developing tolerance, dependence or drug-drug interactions. |

**D)**

|   |                                                                                                                                                                                                                           |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | To give the student general understanding of the peculiar groups of medical substances use in certain pathological situations (indications), or prohibition of such use (contraindications).                              |
| 2 | To develop an ability for estimation of risk/benefit ratio of the medicine substance usage in vulnerable groups of patients (neonates, children, adolescents, pregnant, elderly patients, patients with chronic diseases) |

|   |                                                                                                                                                          |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | To form understanding of misuse and abuse situations connected with medicinal substances                                                                 |
| 4 | To train ability of recognition of toxic or excessive action of medical substance and to teach instruments of monitoring the safety of treatment process |

### 3. LIST OF PLANNED LEARNING OUTCOMES IN THE DISCIPLINE, CORRELATED WITH THE PLANNED RESULTS OF THE MASTERING THE EDUCATIONAL PROGRAM

#### GPC-5

Has to be able to estimate the morphofunctional, physiological and pathological processes in the human organism, vital for solving of professional tasks

**GPC-5.1** to understand the etiology and pathogenesis of pathological processes due to the obtained systemic (fundamental) theoretical knowledge

#### Has to know:

**GPC-5.1/3n2** classification and major characteristics of medicines, pharmacodynamics and pharmacokinetics, indications and contraindications for the usage of said medicines and side effects in infectious and mass non-infectious diseases

#### Has to be able:

**GPC-5.1/Um2** to analyze the action of medicines in unity of their pharmacological properties and possibility of their therapeutic usage, make prescriptions for treatment of certain diseases, according to their pharmacokinetics and pharmacodynamics

**GPC-5.1/Hb2** to prescribe remedies for treatment, rehabilitation and prophylactics of various diseases and pathological processes in adult patients

### 4. THE AMOUNT OF DISCIPLINE IN CREDITS AND HOURS

**Table 1 – The amount of the discipline (module) and the forms of academic work**

| Forms of academic work                 | Amount (in hours) |
|----------------------------------------|-------------------|
| <b>Contact work</b>                    | <b>157</b>        |
| Lectures                               | 30                |
| Practical classes                      | 124               |
| Assessment (exam)                      | 3                 |
| <b>Individual work</b>                 | <b>98</b>         |
| <b>Preparation for the attestation</b> | <b>33</b>         |
| <b>In total (hours)</b>                | <b>288</b>        |

## 5. COURSE MODULE (UNIT)

### 5.1. LECTURES - 30 HOURS

Table 2 - Topics and volume of lectures

| №                | Topics                                                     | Hours     | Forming competences | Achievement indicators                               |
|------------------|------------------------------------------------------------|-----------|---------------------|------------------------------------------------------|
|                  |                                                            |           | GPC-5               | GPC-5.1<br>GPC-5.1/3n2<br>GPC-5.1/Um2<br>GPC 5/1/Hb2 |
|                  | 1.1. Basics of pharmacology                                | 2         | -                   | -                                                    |
|                  | 1.2. Cholinergic medicines                                 | 2         | -                   | -                                                    |
|                  | 1.3. Adrenergic medicines                                  | 2         | -                   | -                                                    |
|                  | 1.4. Anticonvulsive medicines                              | 2         | -                   | -                                                    |
|                  | 1.5. Analgesic medicines                                   | 2         | -                   | -                                                    |
|                  | 1.6. Psychotropic medicines with suppressive action on CNS | 2         | -                   | -                                                    |
|                  | 1.7. Antidepressants                                       | 2         | -                   | -                                                    |
|                  | 1.8. Medicines, acting on the digestive system             | 2         | -                   | -                                                    |
|                  | 1.9. Antiarrhythmic medicines                              | 2         | -                   | -                                                    |
|                  | 1.10. Antihypertensive medicines                           | 2         | -                   | -                                                    |
|                  | 1.11. Medicines, acting on blood                           | 2         | -                   | -                                                    |
|                  | 1.12. Hormonal medicines                                   | 2         | -                   | -                                                    |
|                  | 1.13. Antiinflammatory medicines                           | 2         | -                   | -                                                    |
|                  | 1.14. Antibiotics                                          | 2         | -                   | -                                                    |
|                  | 1.15. Antiviral and antifungal medicines                   | 2         | -                   | -                                                    |
| <b>In total:</b> |                                                            | <b>30</b> |                     |                                                      |

## 5.2. PRACTICAL CLASSES 124 HOURS

**Table 3 - Topics and volume of practice**

| №               | Topics                                                                                                            | Hours      | Forming competences | Achievement indicators                               |
|-----------------|-------------------------------------------------------------------------------------------------------------------|------------|---------------------|------------------------------------------------------|
|                 |                                                                                                                   |            | GPC-5               | GPC-5.1<br>GPC-5.1/3n2<br>GPC-5.1/Um2<br>GPC 5/1/Hb2 |
| 1               | 2.1. Recipe. Structure of recipe. Solid dosage forms.                                                             | 4          | -                   | -                                                    |
| 2               | 2.2. Semi-solid dosage forms                                                                                      | 4          | -                   | -                                                    |
| 3               | 2.3. Liquid dosage forms                                                                                          | 4          | -                   | -                                                    |
| 4               | 2.4. Credit: «Dosage forms»                                                                                       | 4          | -                   | -                                                    |
| 5               | 2.5. Basic pharmacology                                                                                           | 4          | -                   | -                                                    |
| 6               | 2.6. Medicines, acting on the afferent nervous system                                                             | 4          | -                   | -                                                    |
| 7               | 2.7. Medicines, acting on cholinergic synapse                                                                     | 4          | -                   | -                                                    |
| 8               | 2.8. Medicines, acting on adrenergic synapse                                                                      | 4          | -                   | -                                                    |
| 9               | 2.9. Credit: «Medicines, acting on peripheral nervous system»                                                     | 4          | -                   | -                                                    |
| 10              | 2.10. General anesthetics, Ethyl alcohol. Sleeping pills.                                                         | 4          | -                   | -                                                    |
| 11              | 2.11. Antiepileptic medicines. Antiparkinsonian medicines.                                                        | 4          | -                   | -                                                    |
| 12              | 2.12. Analgesic medicines.                                                                                        | 4          | -                   | -                                                    |
| 13              | 2.13. Psychotropic medicines with depressive type of action                                                       | 4          | -                   | -                                                    |
| 14              | 2.14. Psychotropic medicines with stimulating type of action                                                      | 4          | -                   | -                                                    |
| 15              | 2.15. Credit: «Medicines, acting on central nervous system»                                                       | 4          | -                   | -                                                    |
| 16              | 2.16. Medicines, acting on respiratory system                                                                     | 4          | -                   | -                                                    |
| 17              | 2.17 Medicines, acting on digestive system                                                                        | 4          | -                   | -                                                    |
| 18              | 2.18 Antiarrhythmic medicines                                                                                     | 4          | -                   | -                                                    |
| 19              | 2.19. Antianginal and hypolipidemic medicines                                                                     | 4          | -                   | -                                                    |
| 20              | 2.20. Antihypertensive medicines. Diuretics.                                                                      | 4          | -                   | -                                                    |
| 21              | 2.21. Medicines, acting on blood. Medicines, acting on the tone and contractility of the uterus.                  | 4          | -                   | -                                                    |
| 22              | 2.22. Credit: «Medicines, acting on executive organs»                                                             | 4          | -                   | -                                                    |
| 23              | 2.23. Hormonal medicines of polypeptide and aminoacid nature. Medicines for the treatment of diabetes mellitus.   | 4          | -                   | -                                                    |
| 24              | 2.24 Hormonal medicines of steroid nature.                                                                        | 4          | -                   | -                                                    |
| 25              | 2.25. Antiinflammatory medicines. Antiallergic medicines.                                                         | 4          | -                   | -                                                    |
| 26              | 2.26. Antiseptics, disinfectants. Sulfanilamides. Synthetic antimicrobial remedies of various chemical structure. | 4          | -                   | -                                                    |
| 27              | 2.27. Antibiotics                                                                                                 | 4          | -                   | -                                                    |
| 28              | 2.28. Antiviral, antituberculosis, antispirehetal medicines                                                       | 4          | -                   | -                                                    |
| 29              | 2.29. Antiprotozoal, antihelminthic, antifungal medicines.                                                        | 4          | -                   | -                                                    |
| 30              | 2.30. Credit: «Medicines, acting on metabolism and on typical pathological processes. Chemotherapeutic medicines» | 4          | -                   | -                                                    |
| 31              | 2.31. Antitumor medicines                                                                                         | 2          | -                   | -                                                    |
| 32              | 2.32. Test on prescription practical skills                                                                       | 2          | -                   | -                                                    |
| <b>In total</b> |                                                                                                                   | <b>124</b> |                     |                                                      |



### 5.3. INDIVIDUAL SELF-EDUCATIONAL ACTIVITIES OF THE STUDENT – 98 HOURS

**Table 4 – Topics and volume of individual self educational activities of the student**

| №                                                        | Topics                                                                                      | Hours     | Forming competences | Achievement indicators                               |
|----------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|---------------------|------------------------------------------------------|
|                                                          |                                                                                             |           | GPC-5               | GPC-5.1<br>GPC-5.1/3n2<br>GPC-5.1/Um2<br>GPC 5/1/Hb2 |
| <b>A</b>                                                 | <b>Online tests</b>                                                                         |           |                     |                                                      |
| 3.1                                                      | <a href="#">Basic principles of pharmacology</a>                                            | 3         | -                   | -                                                    |
| 3.2                                                      | <a href="#">Medicines, acting on afferent nervous system</a>                                | 3         | -                   | -                                                    |
| 3.3                                                      | <a href="#">Medicines, acting on autonomous nervous system (M and N - cholinoreceptors)</a> | 3         | -                   | -                                                    |
| 3.4                                                      | <a href="#">Medicines, acting on the sympathetic nervous system</a>                         | 3         | -                   | -                                                    |
| 3.5                                                      | <a href="#">General anesthetics and ethyl alcohol</a>                                       | 3         | -                   | -                                                    |
| 3.6                                                      | <a href="#">Antiseizure medicines and medicines used for treatment of Parkinson disease</a> | 3         | -                   | -                                                    |
| 3.7                                                      | <a href="#">Medicines, acting on nociceptive system</a>                                     | 3         | -                   | -                                                    |
| 3.8                                                      | <a href="#">Medicines, acting on respiratory system</a>                                     | 3         | -                   | -                                                    |
| 3.9                                                      | <a href="#">Medicines, used for the treatment of the digestive tract problems</a>           | 3         | -                   | -                                                    |
| 3.10                                                     | <a href="#">Antiarrhythmic medicines</a>                                                    | 3         | -                   | -                                                    |
| 3.11                                                     | <a href="#">Medicines for treatment of myocardial ischemia and heart failure</a>            | 3         | -                   | -                                                    |
| 3.12                                                     | <a href="#">Antihypertensive medicines</a>                                                  | 3         | -                   | -                                                    |
| 3.13                                                     | <a href="#">Medicines, acting on hematopoiesis, coagulation system and uterus</a>           | 3         | -                   | -                                                    |
| 3.14                                                     | <a href="#">Hormonal medicines</a>                                                          | 3         | -                   | -                                                    |
| <b>Total hours for online tests fulfillment</b>          |                                                                                             | <b>42</b> | -                   | -                                                    |
| <b>B</b>                                                 | <b>Other self educational activities of the student</b>                                     |           | -                   | -                                                    |
| 3.15                                                     | Pharmacokinetics and pharmacodynamics. Specificity of geriatric patient.                    | 7         | -                   | -                                                    |
| 3.16                                                     | Hazards of tobacco smoking, pharmacological means for treatment of nicotinic addiction      | 7         | -                   | -                                                    |
| 3.17                                                     | Nootropic medicines. Medicines, used in cerebro-vascular insufficiency                      | 7         | -                   | -                                                    |
| 3.18                                                     | Medicines, used in migraine treatment                                                       | 7         | -                   | -                                                    |
| 3.19                                                     | Combined medicines used in treatment of arterial hypertension                               | 7         | -                   | -                                                    |
| 3.20                                                     | Medicines, used in treatment of osteoporosis                                                | 7         | -                   | -                                                    |
| 3.21                                                     | Medicines, acting on immunity                                                               | 7         | -                   | -                                                    |
| 3.22                                                     | Contemporary pro- and prebiotics                                                            | 7         | -                   | -                                                    |
| <b>Total hours for other self educational activities</b> |                                                                                             | <b>56</b> | -                   | -                                                    |
| <b>Total hours for individual work</b>                   |                                                                                             | <b>98</b> |                     |                                                      |

## 6. MATERIAL, TECHNICAL, EDUCATIONAL AND METHODOLOGICAL RESOURCES OF THE DISCIPLINE

### 6.1 TABLE OF BASIC AND ADDITIONAL LITERATURE

#### BASIC LITERATURE:

1. **Kharkevitch, D. A. Pharmacology** : textbook / D. A. Kharkevitch. - Translation of Russian textbook, 12th edition, revised and improved. - Moscow : GEOTAR-Media, 2023. - 2nd edition. - 680 p. - ISBN 978-5-9704-7088-6. - Text : electronic // Electronic Library System "Student Consultant" : - URL : <https://www.studentlibrary.ru/book/ISBN9785970470886.html> (date of access: 12.06.2026). - Access mode: by subscription
2. **Alyautdin, R. N. Pharmacology. Illustrated textbook** / ed. R. N. Alyautdin. - Moscow : GEOTAR-Media, 2020. - 312 c. - ISBN 978-5-9704-5665-1. - Text: electronic. // Geotar: [site]//URL : <https://www.studentlibrary.ru/book/ISBN9785970456651.html> (date of access: 12.06.2026). - Access mode: by subscription  
**Pharmacology. Illustrated textbook** = Фармакология. Иллюстрированный учебник : учебное пособие для вузов по специальности "Лечебное дело", "Фармация" / ed. R. N. Alyautdin. - Moscow : GEOTAR-Media, 2020. - 311 p. : il. - ISBN978-5-9704-5665-1. Всего в библиотеке: ЧЗ(1), XP(7)
3. **Whalen, Karen. Pharmacology**. Lippincott Illustrated Reviews / Karen L. Whalen; collaborating editors Sarah M. Erchenfeldt, Chris R. Giordano. - 8th ed. - Philadelphia : Wolters Kluwer Health , 2023. - 746 p. - (International edition). - index: p. I-4 - I-20; figure credits: C-1- C-2. - ISBN 978-1-975170-55-4 Перевод заглавия: Фармакология. Иллюстрированные обзоры Липпинкотта Всего в библиотеке: ЧЗ(1), XP(23)
4. **Katzung's Basic & Clinical Pharmacology** / edited by Todd W. Vanderah. - 16th ed. - New York etc. : McGraw-Hill, 2024. - 1347 p. - (International edition). - ISBN 978-1-260-47010-9. Перевод заглавия: Общая и клиническая фармакология Катцунга / под ред. Т. Вандера. Всего в библиотеке: ЧЗ(1), XP(14)

#### ADDITIONAL LITERATURE:

1. **Kharkevitch, Dmitry Aleksandrovich. Pharmacology** : textbook for medical students = Фармакология : учебник для вузов по специальностям "Фармация", "Лечебное дело", "Педиатрия", "Медико-профилактическое дело", "Стоматология" / D. A. Kharkevitch. - 2nd ed. - Москва : ГЭОТАР-Медиа, 2019. - 680 p. : il. - ISBN 978-5-9704-4985-1. Всего в библиотеке: ЧЗ(1), XP(3)
2. **Alyautdin, R. N. Pharmacology. Part 1** : workbook / R. N. Alyautdin, D. A. Enikeeva, N. G. Bondarchuk ; Edited by V. P. Fisenko, english editing I. Yu. Markovina. - М. : ГЭОТАР- Медиа, 2010. - 256 с. - ISBN 978-5-9704-1528-3 Перевод заглавия: Фармакология: рабочая тетрадь. Всего в библиотеке: ЧЗ(1)
3. **Pharmacology. Workbook. In 2 p.** = Фармакология / D. A. Enikeeva, N. G. Bondarchuk, R. N. Alyautdin, V. P. Fisenko ; second edition, revised and supplemented English editing I. Yu. Markovina. - Москва : ГЭОТАР-Медиа, 2021 - . - Текст : непосредственный. - Р. 1. - 2021. - 262 p. - Содержание: General pharmacology (Общая фармакология) ; Drugs acting on the peripheral nervous system (Лекарственные средства, действующие на периферическую нервную систему) ; Drugs acting on the central nervous system (Лекарственные средства, действующие на центральную нервную систему) ; Drugs acting on the endocrine system (Лекарственные средства, действующие на эндокринную систему). - ISBN 978-5-9704-6202-7 Перевод заглавия: Фармакология. Всего в библиотеке: XP(3)
4. **Козловский, В. И. Основы фармакологии** = Essentials of Pharmacology : учебное

пособие / В. И. Козловский, В. П. Вдовиченко, О. А. Борисенок, В. В. Гончарук. - Минск : Выш. шк., 2019. - 287 с. - ISBN 978-985-06-2768-1. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL :

<https://www.studentlibrary.ru/book/ISBN9789850627681.html>

6. **Goodman & Gilman's The Pharmacological Basis of Therapeutics** / editor-in-Chief Laurence L. Brunton, editor Björn C. Knollmann. - 14th ed. - New York etc. : McGraw-Hill, 2023. - 1645 p. - ISBN 978-1-265-01698-2. Всего в библиотеке: 1 экз.

Перевод заглавия: «Фармакологические основы терапии» Гудмана и Гилмана.

7. **Waller, Derek G.** Medical pharmacology and therapeutics / Derek G. Waller, Anthony P. Sampson, Andrew W. Hitchings. - 6th ed. - London : Elsevier, 2022. - 742 p. - ISBN 978-0-7020-8159-0. Перевод заглавия: Медицинская фармакология и терапия. Всего в библиотеке: ЧЗ(1), XP (2)

8. **Katzung, Bertram G.** Basic & Clinical Pharmacology / Bertram G. Katzung, Todd W. Vanderah. - 15th ed. - New York etc. : McGraw-Hill, 2021. - 1311 p. - (International edition). - ISBN 978-1-260-47010-9. Перевод заглавия: Общая и клиническая фармакология. Всего в библиотеке: XP (5)

9. **Basic and Clinical Pharmacology** / ed. Bertram G. Katzung. - 14th ed. - New York etc. : McGraw-Hill Education, 2018. - 1250 p. - (a Lange medical book). - ISBN 978-1-259-64115-2. Перевод заглавия: Общая и клиническая фармакология. Всего в библиотеке: XP(1)

## 6.2 PROFESSIONAL DATABASES AND INFORMATIONAL REFERENCE SYSTEMS

1. Electronic catalog of the Scientific Library of South Ural State Medical University

[http://www.lib-susmu.chelsma.ru:8087/jirbis2/index.php?option=com\\_irbis&view=irbis&Itemid=114](http://www.lib-susmu.chelsma.ru:8087/jirbis2/index.php?option=com_irbis&view=irbis&Itemid=114)

2. Electronic collection of full-text publications of SSMU (access is provided subject to authorization on the site by family name (login) and number (password) of the library card)[http://www.lib-susmu.chelsma.ru:8087/jirbis2/index.php?option=com\\_irbis&view=irbis&Itemid=114](http://www.lib-susmu.chelsma.ru:8087/jirbis2/index.php?option=com_irbis&view=irbis&Itemid=114)

3. Electronic Library System "Student Consultant" – <http://www.studentlibrary.ru/>

4. Electronic Library System "Lan" – access is provided subject to authorization in the Electronic Library System "Lan") – <https://e.lanbook.com/>;

## 6.3 SOFTWARE SUPPORT

1. Windows XP, 7, 8, 10 and higher

2. Microsoft Office 2007 (2010, 2013, 2016)

3. Kaspersky Endpoint Security antivirus

4. IRBIS 64 library automation system 5. Educational portal of the Federal State Budgetary Educational Institution of Higher Education South Ural State Medical University of the Ministry of Health of Russia <http://do.chelsma.ru>

6. Browsers

## 6.4 MATERIAL AND TECHNICAL BASE

Department of Pharmacology has the necessary material and technical base to provide all types of theoretical and practical training included in the curriculum.

There are special rooms equipped with specialized furniture, multimedia equipment (screen, projector, laptop, sound amplification equipment) for lecture classes.

Classrooms for practical classes, group and individual consultations, current and intermediate

assessment are equipped with specialized furniture, multimedia equipment (laptop, projector, screen).

Server and telecommunication equipment of the Federal State Budgetary Educational Institution of Higher Medical Education of the Ministry of Public Health of the Russian Federation, which ensures the functioning of an electronic training course support system using modern LMS (Learning Management System) with an integrated testing subsystem.