

**FEDERAL STATE BUDGETARY EDUCATIONAL INSTITUTION OF HIGHER
EDUCATION
"NORTH OSSETIAN STATE MEDICAL ACADEMY"
MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION**

УТВЕРЖДАЮ
Ректор ФГБОУ ВО СОГМА Минздрава России

«17» апреля 2024

**EDUCATIONAL TRAINING PROGRAM OF DISCIPLINE
«TOPOGRAPHIC ANATOMY AND OPERATIVE SURGERY»**

the main professional educational program of higher education – the specialty program in the
specialty **31.05.01 «General Medicine»**,
approved in 17.04. 2024 г.

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|---------------------------|---|
| Form of education | Full-time |
| The period of development | 6 years |
| Department | human anatomy with topographic anatomy and operative surgery |

Vladikavkaz, 2024

When developing an educational training program, the discipline is based on:

1. Federal State Educational Standard of Higher Education on specialty 31.05.01 General Medicine, approved by the Ministry of Education and Science of the Russian Federation on February 9, 2016 № 95

2. Academic plan on specialty 31.05.01 General Medicine,
ЛД-16 ИИ - 05-19
ЛД-16 ИИ - 06-20

approved by the Scientific Council of the Federal State Budgetary Educational Institution of Higher Education «North-Ossetia State Medical Academy» of the Ministry of Healthcare of the Russian Federation «17. 04. 2024, Protocol № 6.

The educational training program of the discipline was approved at the conference of the Department Of Human Anatomy With Topographic Anatomy And Operative Surgery of **25. 03. 2024, Protocol №8.**

The educational training program of the discipline was approved at a meeting of the central coordinating training and methodological council from 02.04. 2024, **.Protocol № 4.**

The educational training program of the discipline was approved by the Scientific Council of the State Medical University of the Federal State Budgetary Educational Institution of Higher Education «North-Ossetia State Medical Academy» of the Ministry of Healthcare of the Russian Federation from 17. 04. 2024, Protocol № 6.

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1. Name of discipline : «TOPOGRAPHIC ANATOMY AND OPERATIVE SURGERY»

2. The list of planned results of training on discipline correlated with planned results of development of education program:

| № № | Competence number/ index | Content of the competence | Topic of the lesson | Development results | | |
|--------|--|---|--|---|---|---|
| | | | | To know | Be able to | Own |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. | General professional competence -5 General professional competence -9 | The ability and willingness to analyze the results of their own activities to prevent professional mistakes. Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems | Introduction. The subject and tasks of topographic anatomy and operative surgery. General surgical technique. Surgical instruments. Separation of the joint and tissues. | The subject and tasks of topographic anatomy. Principles of operative surgery. | Knit knots. Work with basic surgical instruments. Dissect the study area. | The method of separation and connection of tissues. The technique of performing sutures on the skin with subcutaneous tissue, fascia, aponeurosis, muscle. Special surgical instruments for performing the necessary manipulations at each stage. |
| 2. | General professional competence -5 General | The ability and willingness to analyze the results of their own activities to prevent professional mistakes. Able to assess | Topographic anatomy of the upper limb. Topographic anatomy of the lower limb. | Topographic anatomy of the areas of the upper and lower extremities – borders, layer-by-layer structure, blood supply, innervation, lymph and venous outflow holotopia, skeletotopia, syntopia. | Dissect the study area. | The method of preparation of the studied area. |

| | | | | | | |
|----|--|---|---|---|--|---|
| | professional competence -9. | morphofunctional, physiological states and pathological processes in the human body to solve professional problems | | | | |
| 3. | General professional competence -5 General professional competence -9 | The ability and willingness to analyze the results of their own activities to prevent professional mistakes. Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems | Operations on the upper and lower extremities. | Requirements, classification, types-vascular suture, nerve suture, tendon suture. The technique of puncture, exposure, ligation and cannulation of the central veins according to Seldinger at each stage. Basic principles of joint and bone surgery-classification, types. Basic principles of surgical treatment of purulent processes of the extremities. | Work with special surgical instruments to perform the necessary manipulations at each stage. | Special surgical instruments for performing the necessary manipulations at each stage. |
| 4. | General professional competence -5 | The ability and willingness to analyze the results of their own activities to prevent professional | Topographic anatomy and operative head surgery. | Topographical anatomy of the areas of the brain and facial part of the head: - borders, layer-by-layer structure, blood supply, innervation, lymph and venous outflow holotopia, | Dissect the study area. Work with special surgical instruments to perform the necessary | The method of preparation of the studied area. Special surgical instruments to perform the necessary manipulations at each stage |

| | | | | | | |
|----|--|---|---|--|---|--|
| | General professional competence -9 | mistakes. Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems | | skeletotopia, syntopia. Fundamentals of surgical interventions on the brain and facial parts of the head: at each stage. | manipulations at each stage. | |
| 5. | General professional competence -5 General professional competence -9 | The ability and willingness to analyze the results of their own activities to prevent professional mistakes. Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems | Topographic anatomy and operative neck surgery. | Topographical anatomy of the neck areas-borders, layer-by-layer structure, blood supply, innervation, lymph and venous outflow holotopia, skeletotopia, syntopia. Basics of surgical interventions on the neck and neck organs at each stage. | Dissect the study area. Work with special surgical instruments to perform the necessary manipulations at each stage. | The method of preparation of the studied area. Special surgical instruments to perform the necessary manipulations at each stage. |
| 6. | General professional competence -5 | The ability and willingness to analyze the results of their own activities to | Topographic anatomy and operative surgery of the trunk. | Topographical anatomy of the trunk areas – borders, layer-by-layer structure, blood supply, innervation, lymph and venous | Dissect the study area. Work with special surgical instruments to | The method of preparation of the studied area. Special surgical instruments to perform the necessary manipulations at each stage |

| | | | | | | |
|--|---|---|--|---|---|--|
| | <p>General professional competence -9</p> | <p>prevent professional mistakes. Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems</p> | | <p>outflow holotopia, skeletotopia, syntopia. Fundamentals of surgical interventions on the trunk and trunk organs at each stage.</p> | <p>perform the necessary manipulations at each stage.</p> | |
|--|---|---|--|---|---|--|

3. Place of discipline in the structure of the educational program:

The discipline "**Topographical anatomy and operative surgery**" refers to the mandatory part of the Block-1 of the Federal State Educational Standards of Higher Education in the specialty **31.05.01 GENERAL MEDICINE** (Educational program, partially implemented in English).

4. The volume of discipline in credits indicating the number of academic or astronomical hours allocated for contact work of students with a teacher (by type of training sessions) and for independent work of students:

| № п/ п | Kind of work | Total credits | Total hours | Semesters | |
|--------------|--|-----------------|-------------|------------|-----------|
| | | | | №6 | №7 |
| | | | | Hours | Hours |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | Contact work of students with teacher (total), including: | - | 102 | 46 | 56 |
| 2 | Lectures (L) | - | 34 | 16 | 18 |
| 3 | Practical training (PZ) | - | 68 | 30 | 38 |
| 4 | Seminars (S) | | | | |
| 5 | Laboratory work (LR) | | | | |
| 6 | Self-study student (IWS) | - | 42 | 26 | 16 |
| 7 | Intermediate type certification | Offset (Z) | | | |
| | | Exam (E) | - | 36 | 36 |
| 8 | IN TOTAL: General labor intensity | Hours | | 180 | 72 |
| | | Credit unit | 5 | | 2 |

5. The content of the discipline:

| №/пп | № семестра | Name of the topic (section) of the discipline | Types of training activities (in hours) | | | | | Forms of current performance monitoring |
|------|------------|---|---|--------|----|-----|-------|--|
| | | | L | M W | PE | IWS | Total | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | 6 | Introduction | 2 | | 2 | 2 | 6 | * Oral survey on theoretical issues. * Survey on preparations. • Test control. • Control card. * Situational challenges. |
| 2 | 6 | Topographic anatomy and operative surgery of the upper limb | 2 | | 5 | 5 | 12 | * Oral survey on theoretical issues. * Survey on preparations. • Test control. • Control card. * Situational challenges. |

| | | | | | | | |
|-------------------|-----|---|-----------|-----------|-----------|------------|--|
| 3 | 6 | Topographic anatomy and operative surgery of the lower limb | 2 | 3 | 5 | 10 | * Oral survey on theoretical issues. * Survey on preparations. • Test control. • Control card. * Situational challenges. |
| 4 | 6 | Topographic anatomy and operative surgery of the head | 3 | 4 | 5 | 12 | * Oral survey on theoretical issues. * Survey on preparations. • Test control. • Control card. * Situational challenges. |
| 5 | 6 | Topographic anatomy and operative surgery of the neck | 3 | 4 | 5 | 12 | • Oral survey on theoretical issues. * Survey on preparations. • Test control. • Control card. * Situational challenges. |
| 6 | 6,7 | Topographic anatomy and operative surgery of the body | 22 | 50 | 20 | 92 | • Oral survey on theoretical issues. * Survey on preparations. • Test control. • Control card. * Situational challenges. |
| In total:: | | | 34 | 68 | 42 | 144 | |
| Exam | | | | | | 36 | |
| IN TOTAL: | | | | | | 180 | |

6. The list of educational and methodological support for independent work of students in the discipline

| №/п | № semester | The name of the educational-methodical development |
|-----|------------|--|
| 1 | 6 | 1. Educational and methodical development for students to practical classes in «Topographic anatomy and operative surgery» (VI semester). Specialty 31.05.01 «General medicine» Compiled by V. N. Kornaeva, Reviewers: A. A. Kulchiev, U. S. Beslekov |
| 2 | 6 | 2. Educational and methodological developments for teachers for practical classes in «Topographic anatomy and operative surgery». 3rd year. Specialty 31.05.01 «General medicine» Compiled by V. N. Kornaeva, Reviewers: A. A. Kulchiev, U. S. Beslekov |
| 3 | 6 | 3. Educational and methodological recommendations for performing independent extracurricular work in the discipline «Topographic anatomy and operative surgery» for 3rd year students Specialty 31.05.01 «General medicine» Compiled by V. N. Kornaeva, Reviewers: A. A. Kulchiev, U. S. Beslekov |
| 4 | 6 | 4. Guidelines for the implementation of independent extracurricular work by students of the 3rd year of the Faculty of Medicine in the discipline «Topographic anatomy and operative surgery» Specialty 31.05.01 «General medicine» |

| | | |
|---|---|--|
| | | Compiled by V. N. Kornaeva, Reviewers: A. A. Kulchiev, U. S. Beslekov |
| 5 | 6 | 5. Guidelines for the implementation of independent extracurricular work by students of the 3rd year of the Faculty of Medicine in the discipline «Topographic anatomy and operative surgery» Specialty 31.05.01 «General medicine» Compiled by V. N. Kornaeva, Reviewers: A. A. Kulchiev, U. S. Beslekov |
| 6 | 7 | 6. Educational and methodological recommendations for performing independent extracurricular work on the discipline «Topographic anatomy and operative surgery» for students of the 4th year of the Faculty of Medicine Specialty 31.05.01 «General medicine» Compiled by V. N. Kornaeva, Reviewers: A. A. Kulchiev, U. S. Beslekov |
| 7 | 7 | 7. Methodological recommendations for performing independent extracurricular work in the discipline «Topographic anatomy and operative surgery» for 4th year students Specialty 31.05.01 «General medicine» Compiled by V. N. Kornaeva, Reviewers: A. A. Kulchiev, U. S. Beslekov |
| 8 | 7 | 8. Educational and methodological developments for teachers for practical classes in «Topographic anatomy and operative surgery». 4th year Specialty 31.05.01 «General medicine» Compiled by V. N. Kornaeva, Reviewers: A. A. Kulchiev, U. S. Beslekov |
| 9 | 7 | 9. Educational and methodological developments for students for practical classes in «Topographic anatomy and operative surgery» 4th year Specialty 31.05.01 «General medicine» Compiled by V. N. Kornaeva, Reviewers: A. A. Kulchiev, U. S. Beslekov |

7. Evaluation materials for the interim certification of students in the discipline

| № | The list of competencies | Semester number | Indicator(s) of assessment | Evaluation Criterion (s) | Grading scale | Name |
|----------|--------------------------------------|------------------------|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | General professional competence -5.9 | 6, 7 | see the standard for assessing the quality of education, approved by the Order of the Federal State Budgetary | see the standard for assessing the quality of education, approved by the Order of the Federal State Budgetary | see the standard for assessing the quality of education, approved by the Order of the Federal State | Exam tickets for the exam; Bank of test tasks; Exam tickets for |

8. The list of basic and additional textbooks necessary to study the discipline:

| пп/ № | Name | Autor | Year, place of publicatio | Number of copies | | The name of EBS/link to ABS |
|----------------------------|--|---|---------------------------------|---------------------|--------------------------|---|
| | | | | In library | On depa rtme nt | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Основная литература | | | | | | |
| 1. | Topographic anatomy and operative surgery: textbook | Nikolaev, A. V | М.: GEOTAR-Media, 2018 | 35 | - | Консультант студента» http://www.studmedlib.ru/book/ISBN9785970417560.html |
| 2. | Топографическая анатомия и оперативная хирургия: учебник. В 2-х т. | Сергиенко В. И., Петросян Э. А., Фраучи И. В. | М.: ГЭОТАР-Медиа, 2014 | Т.1 – 102 | - | «Консультант студента» http://www.studmedlib.ru/book/ISBN9785970417560.html |
| 3. | Топографическая анатомия и оперативная хирургия: учебник. В 2-х т. | Сергиенко В. И., Петросян Э. А., Фраучи И. В. | М.: ГЭОТАР-Медиа, 2010 | Т.2 – 102 | - | «Консультант студента» http://www.studmedlib.ru/book/ISBN9785970417560.html |
| | | | | Т.2 – 148 | - | «Консультант студента» http://www.studmedlib.ru/book/ISBN9785970417584.html |
| 4. | Топографическая анатомия и оперативная хирургия: учебник | Сергиенко В.И.; Петросян Э.А | М.: ГЭОТАР-Медиа, 2013 | - | - | «Консультант студента» http://www.studmedlib.ru/book/ISBN9785970423622.html |

| | | | | | | |
|----------------------------------|---|---|----------------------------------|-----------|---|---|
| 5. | Оперативная хирургия: учеб. пособие по мануальным навыкам | Под ред. А. А. Воробьев | М.: ГЭОТАР-Медиа, 2015 | 1 | | «Консультант студента» http://www.studmedlib.ru/book/ISBN9785970433546.html |
| 6. | Практикум по оперативной хирургии: учеб. пособие | Лопухин Ю. М., Владимиров В. Г., Журавлев А. Г. | М.: ГЭОТАР-Медиа, 2013 | - | | «Консультант студента» http://www.studmedlib.ru/book/ISBN9785970426265.html |
| Дополнительная литература | | | | | | |
| 7 | Топографическая анатомия и оперативная хирургия: учебник в 2-х т. | Под ред. И.И. Каган, И.Д. Кирпатовский | М.: ГЭОТАР-Медиа, 2013. | - | - | «Консультант студента» http://www.studmedlib.ru/book/ISBN9785970427385.html |
| | | | | - | - | «Консультант студента» http://www.studmedlib.ru/book/ISBN9785970427378.html |
| 8 | Топографическая анатомия и оперативная хирургия: учебник в 2-х т. | Николаев А.В. | Москва: ГЭОТАР-Медиа, 2009, 2013 | Т.1 – 148 | - | «Консультант студента» http://www.studmedlib.ru/book/ISBN9785970426135.html |
| | | | | Т.2 – 147 | - | «Консультант студента» http://www.studmedlib.ru/book/ISBN9785970426142.html |
| 9 | Учебно-методическое пособие по топографической анатомии и оперативной хирургии для студентов лечебного факультета медицинских вузов | Сергиенко В. И., Петросян Э. А., Сухинин А. А. | М.: ГЭОТАР-Мед, 2001 | 23 | - | |
| 10 | Учебно-методическое пособие по | Сергиенко В. И., Петросян Э. А. | М.: ГЭОТАР- | 20 | - | |

| | | | | | | |
|----|--|--|---|-----|---|---|
| | топографической анатомии и оперативной хирургии для студентов педиатрического факультета медицинских вузов | | Мед, 2001 | | | |
| 11 | Анатомия по Пирогову: атлас анатомии человека. Т.1. Верхняя конечность. Нижняя конечность | Шилкин В.В., Филимонов В.И. | М.: ГЭОТАР- Медиа, 2011 | 1 | - | «Консультант студента» http://www.studmedlib.ru/book/ISBN9785970419465.html |
| 12 | Анатомия по Пирогову: атлас анатомии человека. Т.2. Голова. Шея | Шилкин В.В., Филимонов В.И. | М.: ГЭОТАР- Медиа, 2013 | 1 | - | «Консультант студента» http://www.studmedlib.ru/book/ISBN9785970423646.html |
| 13 | Анатомия по Пирогову: атлас анатомии человека. Т.3. Грудь. Живот. Таз | Шилкин В.В., Филимонов В.И. | М.: ГЭОТАР- Медиа, , 2011, 2016 | 1 | - | «Консультант студента» http://www.studmedlib.ru/book/ISBN9785970437650.html |
| 14 | Атлас анатомии человека | Неттер Ф. | М.: ГЭОТАР- Медиа, 2003, 2007, 2015 | 22 | - | |
| 15 | Оперативная хирургия и топографическая анатомия: учебник | Островерхов Г. Е., Бомаш Ю. М., Лубоцкий Д. Н. | Курск: АП "Курск", 1995 | 170 | - | |
| 16 | Оперативная хирургия и топографическая анатомия: учебник | Островерхов Г. Е., Бомаш Ю. М., Лубоцкий Д. Н. | М.: МИА, 2005 | 6 | - | |
| 17 | Оперативная хирургия и топографическая анатомия: учебник | Под ред. В. В. Кованов | М.: Медицина, 1985 | 157 | | |
| 18 | Оперативная хирургия и топографическая анатомия: учебник | Большаков О.П., Семенов Г.М. | СПб.: Питер, 2012 | 1 | | |

СОГЛАСОВАНО
Зед. библиотекой

9. The list of resources of information and telecommunication network "Internet", necessary for the development of the discipline:

<http://www.studmedlib.ru> - student consultant

<https://elibrary.ru/defaultx.asp> - scientific electronic library

<https://meduniver.com> – all of medicine

10. Methodical instructions for students on the development of the discipline:

Training consists of contact work, including a lecture course and practical training (102 hours), and independent work (42 hours). The entire volume of the discipline is 5 credits. The main training time is allocated for practical work on the assimilation of theoretical knowledge, the acquisition of practical skills and abilities. When studying the discipline it is necessary to use the entire resource of the main and additional educational literature, lecture material, visual tutorial and demonstration materials; to master the practical skills and abilities acquired in the course of work with surgical instruments, cadaveric and native preparations, demonstration visual tutorial, educational videos and situational tasks. Practical classes are held in the form of classroom work with the use of visual tutorial, situational tasks, test tasks according to the algorithm of methodical development of the Department staff. In accordance with the requirements of the Federal State Educational Standard of Higher Education for 31.05.01 "General Medicine" in the educational process are widely used active and interactive forms of training (developing and problem training, modular training, interactive forms of training, multimedia training and demonstration). The share of classes held in interactive forms is not less than 20% of classroom classes.

Independent work of the student involves preparation for practical training, to the input, current, intermediate control, and includes individual classroom work with visual materials and homework, with educational basic and additional literature, resources of the Internet, the solution of situational problems, test tasks, etc. Work with educational literature is considered as a type of educational work on the subject "Topographic anatomy and operative surgery" and is performed within hours allocated to its study.

Each student is provided with access to the library collections of the Academy and the Department. During the study of the discipline, students under the guidance of a teacher conduct the study of cadaveric material in accordance with the theme of the lesson, study surgical instruments and practice the skills of their proper use, work out the skills of surgical manipulations on a native preparations. Student's work in the group forms a sense of collectivism and sociability. At the end of the discipline is an intermediate control of knowledge with the use of an oral survey, test control, situational problems and testing of practical skills.

11. The list of information technologies used in the implementation of the educational process in the discipline:

Microsoft Office

PowerPoint;

Acrobat Reader;

Internet Explorer

12. Description of the material and technical base necessary for the implementation of the educational process in the discipline:

There are training rooms for students, a specially equipped computer class, a Cabinet for storage of macropreparations, educational tables, technical equipment: a PC, a multimedia complex (laptop, projector), a TV, a video and DVD player, as well as sets of tables, multimedia visual materials for various sections of the discipline, corpse material and models, situational tasks, test tasks on the topics studied, computer presentations on all topics of the lecture course, educational videos for each section of the discipline.

| №№ | Equipment name | Number | Technical condition |
|--------------------------|---|---------------|----------------------------|
| 1 | 2 | 3 | 4 |
| Special equipment | | | |
| 1. | Surgical instrument | 89 | Satisfactory |
| 2. | Autopsy table | 0 | |
| 3. | Medical wheelchairs | 2 | Satisfactory |
| 4. | Table Fund | 280 | Satisfactory |
| Phantoms | | | |
| 5. | Corpse material (the corpse of a woman) | 1 | Satisfactory |
| 6. | Limb bones | 12 | Satisfactory |
| 7. | Skeleton | 2 | Satisfactory |
| Dummies | | | |
| 8. | Head and neck dummy | 2 | Satisfactory |
| | | 1 | Satisfactory |

Provision of educational process with technical means, computer equipment:

| №№ | Equipment name | Number | Technical condition |
|-----------|-----------------------|---------------|----------------------------|
| <i>1</i> | <i>2</i> | <i>3</i> | <i>4</i> |
| 1 | Monoblock | 10 | Satisfactory |
| 2 | Multimedia projector | 1 | Satisfactory |
| 3 | Laptop | 1 | Satisfactory |

13. Conducting educational activities using e - learning and distance learning technologies

In the conditions of introduction of restrictive measures (quarantine) associated with an unfavorable epidemiological situation, the threat of the spread of a new coronavirus infection, and other force majeure events that do not allow conducting face-to-face training sessions, it is possible to study this discipline or part of it using e-learning and distance education technologies.

Teaching the discipline in the above situations will be carried out through the development of an electronic course with access to video lectures and interactive course materials: presentations, articles, additional materials, tests and various tasks. When conducting training sessions, current monitoring of academic performance, as well as intermediate certification of students, the Academy's electronic information and educational environment platforms and/or other e-learning systems recommended for use in the Academy, such as Moodle, Zoom, Webinar, etc. can be used. Lectures can be presented in the form of audio, video files, "live lectures", etc.

Seminars and practical classes can be held on-line in both synchronous and asynchronous modes. Seminars can be held in the form of web conferences.