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Federal State Budget Educational Institution
of Higher Education
Pacific State Medical University
of the Ministry of Health of the Russian Federation

APPROVED BY

Director of the Institute of
of Simulation and Training Technology
_____ / Gnezdilov V.V./
"10th" of April 2025

SUBJECT GUIDE FOR TEACHERS AND STUDENTS FOR

Б1.О.46 Topographic anatomy of human head and neck

(name of discipline)

Specialty	**31.05.03 Dentistry for international students (in English)** (code, name)
Degree	Specialist's degree
Profile	02 "Healthcare" (in the field of providing health care in patients with dental pathology)
Mode of study	**Full-time**
Period of mastering the BEP	**5 years** (nominal length of study)
Institute	of Simulation and Training Technology

Vladivostok, 2025

Subject guide for teachers and students for **Б1.О.46 Topographic anatomy of human head and neck** is based on:

1) Federal State Educational Standard of Higher Education for the specialty approved by the Order No. 984 of Ministry of Science and Higher Education of the Russian Federation dated August 12, 2020.

2) Curriculum for the 31.05.03 Dentistry for international students (in English), profile 02 "Healthcare" (in the field of providing health care in patients with dental pathology), approved by the Academic Council of FSBEI HE PSMU of the Ministry of Health of Russia Report No. 8/24-25 dated March 31, 2025.

Subject guide for teachers and students for **Б1.О.46 Topographic anatomy of human head and neck** was developed by the writing team of the Institute of Simulation and Training Technology of the FSBEI HE PSMU of the Ministry of Health of Russia, under the guidance of the director of the institute Gnezdilov V.V.

Developed by:

Senior lecturer	Candidate of Medical Sciences	Korolev D.V.
(position held)	(academic degree, academic title)	(full name)

1. GENERAL PROVISIONS

Subject guide for **Б1.О.46 Topographic anatomy of human head and neck** is a set of recommendations and explanations that facilitate to optimal organization of mastering this discipline.

Regular analysis of lecture materials and work with end-of-the-text questions are necessary for better understanding of the material and systematization of knowledge of **Б1.О.46 Topographic anatomy of human head and neck**. Particular attention should be paid to emerging questions, confusing terms, and conflicts of points of view during the independent review of the lecture material. If necessary, a student should contact the teacher for advice. Lecture material streamlines students' thinking, while practical classes provide deeper insight into the material of the discipline.

Special attention should be paid to the content of the main provisions and conclusions, explanation of phenomena and facts, and clarification of the practical application of theoretic aspects of topic when preparing for a practical class. During this process students should aim to understand and remember the main provisions of the material under consideration, examples provided, as well as understand the illustrative material.

Collections of assessment tools are used to organize independent study of topics of **Б1.О.46 Topographic anatomy of human head and neck**.

Independent work of students is facilitated by the following:

1. availability and accessibility of the necessary educational and reference material;
2. a system of regular quality control of completed independent work;
3. availability of teacher's advice.

Subject guides for self-study are presented as literary sources. Subject guides for independent work of students include a list of library resources of the educational institution and other materials accessible to students.

Independent work is a type of in-person extracurricular work of teachers and students of **Б1.О.46 Topographic anatomy of human head and neck**. Control of independent work is conducted by the leading teacher. Evaluation of independent work results is taken into account when conducting interim examination of students throughout **Б1.О.46 Topographic anatomy of human head and neck** course.

Continuous assessment during **Б1.О.46 Topographic anatomy of human head and neck** course is implemented in order to check indicators of achieving competencies, to stimulate students' academic work, and improve methods of mastering new knowledge. Continuous assessment during **Б1.О.46 Topographic anatomy of human head and neck** course is conducted during the semester to assess all types and sections of the academic discipline that encompass the competencies developed by the discipline: classroom questioning, discussions, working with tests, preparing reports, and other types of independent and classroom work. Continuous assessment of students' knowledge and results of their preparation for practical classes is conducted during every class session.

Interim assessment aims to determine the level of mastery of competency indicators. It is conducted in the exam format after the student has mastered all sections of **Б1.О.46 Topographic anatomy of human head and neck** and takes into account learning outcomes for all types of student work over the entire period of mastering **Б1.О.46 Topographic anatomy of human head and neck** course.

Time allotted for interim assessment is indicated in the schedule.

Assignments given during practical classes, as well as assignments aimed to prepare students for continuous and interim assessment, are included in the collection of assessment tools for **Б1.О.46 Topographic anatomy of human head and neck**. If necessary, students should contact the teacher for advice. It is necessary to thoroughly think over questions that need clarification before seeking teacher's advice.

2. SUBJECT GUIDES FOR LECTURE CLASSES

Table 1. Subject Guides for **Б1.О.46 Topographic anatomy of human head and neck** Lectures

Topic No.1 Introductory lecture. Objectives and methods of studying topographic anatomy and operative surgery	
Duration of the lecture (in academic hours):	2
Purpose of the lecture: 1. tell students about the history of surgical intervention and topographic anatomy, as well as the methods used to study these subjects; 2. define surgical intervention: surgical approach and technique, requirements, and classification; 3. examine issues of deontology in surgery and experimental research.	
Lecture plan, order of presentation of its sections: - Pirogov, N.I.: key milestones. Contribution to the creation and development of topographic anatomy ("ice" anatomy, Pirogov's laws, etc.) and surgery (the beginnings of osteoplastic amputations, the use of anesthesia, rhinoplasty, triage of the wounded, plaster casts, etc.). Russian topographic-anatomical schools: F.I. Inozemtsev, A.A. Bobrov, P.I. Dyakonov, N.N. Burdenko, V.N. Shevkunenko, G.E. Ostroverkhov, V.V. Kovanov, F.I. Valker, E.M. Margorin, and others - Surgical approach: physiological suitability, cosmesis, objective criteria for assessing approaches according to Sozon-Yaroshevich - Surgical approach: requirements according to N.N. Burdenko (anatomical accessibility, technical feasibility, physiological permissibility), types (-tomy, -stomy, resection, etc.) - Ethical rules for work in the morgue and on experimental animals	
Recommended reading: 1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.; 2. Kagan, I. I. Topographic anatomy and operative surgery: textbook [Electronic resource] / I. I. Kagan, S. V. Chemezov, etc. - 2nd ed., revised. - M.: GEOTAR-Media, 2022. - 672 p. URL: http://www.studentlibrary.ru; 3. Kalmin, O. V. Topography of organs in tables and diagrams: textbook. Manual [Electronic resource] / O. V. Kalmin. - St. Petersburg: SpetsLit, 2017. - 151 p. URL: http://books-up.ru; 4. Nikolaev, A. V. Topographic Anatomy and Operative Surgery: Textbook [Electronic resource] / A. V. Nikolaev. - 3rd ed., corrected. and enlarged. - Moscow: GEOTAR-Media, 2019. - 736 p. URL: http://www.studentlibrary.ru/ 5. Operative Surgery: Textbook on Manual Skills [Electronic resource] / edited by A. A. Vorobyov, I. I. Kagan. - Moscow: GEOTAR-Media, 2015. URL: http://www.studentlibrary.ru/	
Topic No.2 Suturing (connecting tissues) and surgical incisions (separating tissues): rules and technique. Bleeding arrest: temporary and complete. Fundamentals of surgical interventions on blood vessels	
Duration of the lecture (in academic hours):	2
Purpose of the lecture: 1. tell students about the general blood supply of the human body, the concept of intravascular surgery; 2. define key terms: collateral circulation;	

3. examine basic vascular surgeries, methods of vascular ligation, techniques, and methods of vascular suturing.

Lecture plan, order of presentation of its sections:

- General diagram of the main blood flow. External landmarks and projection lines of the main vascular-nerve bundles
- Ligation of vessels in and along the wound: indications and rules. Types of arterial (intra-, intersystemic, and distant) and venous (porto- and cavacaval) anastomoses
- Vessel suturing: history of use, requirements, classification. Vascular suturing devices (Gudov, 1947). Carrel suturing technique
- Basic vascular surgeries: anastomosis, plastic surgery, prosthetics, bypass grafting
- Materials, instruments, and equipment for intravascular surgeries. Types of surgeries: embolectomy, thrombectomy, vascular occlusion, X-ray vascular dilation and prosthetics

Recommended reading:

1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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4. Nikolaev, A. V. Topographic Anatomy and Operative Surgery: Textbook [Electronic resource] / A. V. Nikolaev. - 3rd ed., corrected. and enlarged. - Moscow: GEOTAR-Media, 2019. - 736 p. URL: http://www.studentlibrary.ru/
5. Operative Surgery: Textbook on Manual Skills [Electronic resource] / edited by A. A. Vorobyov, I. I. Kagan. - Moscow: GEOTAR-Media, 2015. URL: http://www.studentlibrary.ru/

Topic No.3 Topographic anatomy of the cranial vault and base of the skull: frontal-parietal-occipital, temporal, mammillary regions

Duration of the lecture (in academic hours):	2

Purpose of the lecture:

1. tell students about the general structure of the head;
2. examine the topography of the frontal-parietal-occipital region, the temporal region, and the mammillary region.

Lecture plan, order of presentation of its sections:

- Sections of the head. Division of the head into two sections: the facial and the cerebral
- Division of the cerebral section into regions
- Topographic anatomy of the frontal-parietal-occipital region
- Topographic anatomy of the temporal region
- Topographic anatomy of the mammillary region. Chipault's triangle: boundaries and significance

Recommended reading:

1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
2. Kagan, I. I. Topographic anatomy and operative surgery: textbook [Electronic resource] / I. I. Kagan, S. V. Chemezov, etc. - 2nd ed., revised. - M.: GEOTAR-Media, 2022. - 672 p. URL: http://www.studentlibrary.ru;

3. Kalmin, O. V. Topography of organs in tables and diagrams: textbook. Manual [Electronic resource] / O. V. Kalmin. - St. Petersburg: SpetsLit, 2017. - 151 p. URL: http://books-up.ru;
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5. Operative Surgery: Textbook on Manual Skills [Electronic resource] / edited by A. A. Vorobyov, I. I. Kagan. - Moscow: GEOTAR-Media, 2015. URL: http://www.studentlibrary.ru/

Topic No.4 Topographic anatomy of the facial part of the head: buccal, parotid-masticatory, deep regions of the face

Duration of the lecture (in academic hours):	2

Purpose of the lecture:
1. review the boundaries of the facial region;
2. review the topography of the buccal region;
3. review the topography of the parotid-masticatory region;
4. review the topography of the deep facial region.

Lecture plan, order of presentation of its sections:
- Functions of the facial region and the importance of the face in society
- Topographic anatomy of the buccal region
- Topographic anatomy of the parotid-masticatory region
- Topographic anatomy of the deep facial region

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
2. Kagan, I. I. Topographic anatomy and operative surgery: textbook [Electronic resource] / I. I. Kagan, S. V. Chemezov, etc. - 2nd ed., revised. - M.: GEOTAR-Media, 2022. - 672 p. URL: http://www.studentlibrary.ru;
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5. Operative Surgery: Textbook on Manual Skills [Electronic resource] / edited by A. A. Vorobyov, I. I. Kagan. - Moscow: GEOTAR-Media, 2015. URL: http://www.studentlibrary.ru/

Topic No.5 Topography of the facial and trigeminal nerves. Aspects of the blood supply to the soft tissues of the skull

Duration of the lecture (in academic hours):	2

Purpose of the lecture:
1. tell students about the significance and topography of the facial nerve, the significance and topography of the trigeminal nerve;
2. compare the facial and the trigeminal nerves, identify their purpose and differences;
3. examine the blood supply to the soft tissues of the skull, its characteristics.

Lecture plan, order of presentation of its sections:
- Topographic anatomy of the facial nerve
- Topographic anatomy of the trigeminal nerve

- Comparative characteristics of the facial and trigeminal nerves
- Specifics of the blood supply to the soft tissues of the skull and their practical significance

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
2. Kagan, I. I. Topographic anatomy and operative surgery: textbook [Electronic resource] / I. I. Kagan, S. V. Chemezov, etc. - 2nd ed., revised. - M.: GEOTAR-Media, 2022. - 672 p. URL: http://www.studentlibrary.ru;
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5. Operative Surgery: Textbook on Manual Skills [Electronic resource] / edited by A. A. Vorobyov, I. I. Kagan. - Moscow: GEOTAR-Media, 2015. URL: http://www.studentlibrary.ru/

Topic No.6 Primary surgical debridement of facial wounds. Incisions for phlegmons of the maxillofacial region

Duration of the lecture (in academic hours):	2

Purpose of the lecture:
1. tell students about the concept of primary surgical debridement of facial wounds;
2. identify the specifics of primary surgical debridement in this area, the sites of purulent spread in the facial area;
3. examine the main surgeries for maxillofacial phlegmon.

Lecture plan, order of presentation of its sections:
- Primary surgical debridement: goals and objectives
- Features of primary surgical debridement of maxillofacial wounds
- Causes of abscess and phlegmon formation in this area
- Locations and spread of the inflammatory process
- Basic surgical interventions for maxillofacial phlegmon

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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4. Nikolaev, A. V. Topographic Anatomy and Operative Surgery: Textbook [Electronic resource] / A. V. Nikolaev. - 3rd ed., corrected. and enlarged. - Moscow: GEOTAR-Media, 2019. - 736 p. URL: http://www.studentlibrary.ru/
5. Operative Surgery: Textbook on Manual Skills [Electronic resource] / edited by A. A. Vorobyov, I. I. Kagan. - Moscow: GEOTAR-Media, 2015. URL: http://www.studentlibrary.ru/

Topic No.7 Blood supply of the brain. Sinuses of the dura mater. Cranio-cerebral topography. Primary surgical debridement of skull wounds. Craniotomy

Duration of the lecture (in academic hours):	2

Purpose of the lecture:
1. tell students about the cerebral circulatory system, the cerebral venous system, craniotomy;
2. illustrate the cranial topography;
3. examine the specifics of primary surgical debridement of brain wounds.

Lecture plan, order of presentation of its sections:
- Features of the cerebral blood circulation
- The vertebral artery. The internal carotid artery. The circle of Willis
- The sinuses of the brain. Anastomoses between the sinuses and the superficial veins of the head
- Features of primary surgical debridement of penetrating and non-penetrating head wounds. Craniotomy: types, main stages. Cranioplasty

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
2. Kagan, I. I. Topographic anatomy and operative surgery: textbook [Electronic resource] / I. I. Kagan, S. V. Chemezov, etc. - 2nd ed., revised. - M.: GEOTAR-Media, 2022. - 672 p. URL: http://www.studentlibrary.ru;
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Topic No.8 Topographic anatomy of the neck: division into triangles, fascia and fascial (potential) spaces. Topography of the lateral (posterior) triangle of the neck

Duration of the lecture (in academic hours):	2

Purpose of the lecture:
1. tell students about the cellular spaces of the neck and their significance, the conventional division of the neck into triangles;
2. define the fascia and cellular spaces of the neck;
3. examine the topography of the lateral triangle of the neck.

Lecture plan, order of presentation of its sections:
- Classification of the cervical fasciae according to Shevkunenko and Terminologia Anatomica. Superficial and deep, limited and communicating cellular spaces, and the routes of spread of cervical phlegmon
- The lateral triangle of the neck and its components
- The neurovascular bundle of this triangle
- Clinical significance of triangles of the neck

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;

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Topic No.9 Topography of the medial (anterior) triangle of the neck. Topography of the neck organs: thyroid and parathyroid glands, larynx, trachea, pharynx, esophagus

Duration of the lecture (in academic hours):	2

Purpose of the lecture:
1. tell students about topographic anatomy of the medial triangle of the neck;
2. discuss the significance of triangles of the neck in surgical practice;
3. examine the topography of the neck organs, the thyroid and parathyroid glands, the larynx, the trachea, the pharynx, and the esophagus.

Lecture plan, order of presentation of its sections:
- Structure of the medial triangle of the neck
- Carotid triangle
- Pirogov's triangle
- Review the general topography of the neck organs
- Topographic anatomy of the thyroid and parathyroid glands
- Topographic anatomy of the larynx
- Topographic anatomy of the trachea
- Topographic anatomy of the pharynx
- Topographic anatomy of the esophagus
- Cervical and brachial plexuses, stellate ganglion
- Vagus, phrenic, and recurrent nerves
- Thoracic duct

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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5. Operative Surgery: Textbook on Manual Skills [Electronic resource] / edited by A. A. Vorobyov, I. I. Kagan. - Moscow: GEOTAR-Media, 2015. URL: http://www.studentlibrary.ru/

Topic No.10 Vascular access and ligation of the carotid artery. Incisions for phlegmon of the neck. Vagosympathetic block according to Vishnevsky. Subclavian vein puncture and catheterization. Tracheostomy. Resection of the thyroid gland

Duration of the lecture (in academic hours):	2
Purpose of the lecture: 1. tell students about the goals and objectives of carotid artery ligation; 2. review incisions for neck cellulitis; 3. examine the Vishnevsky vagosympathetic block, subclavian vein puncture and catheterization, tracheostomy, thyroid resection.	
Lecture plan, order of presentation of its sections: - Goals and objectives of carotid artery ligation, as a special case of vessel ligation along its length - Access to organs and vessels of the neck. Incisions for opening cervical phlegmons - Vishnevsky vagosympathetic block - Puncture and catheterization of the subclavian vein - Tracheostomy - Lymphosorption - Fundamentals of thyroid surgery	
Recommended reading: 1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.; 2. Kagan, I. I. Topographic anatomy and operative surgery: textbook [Electronic resource] / I. I. Kagan, S. V. Chemezov, etc. - 2nd ed., revised. - M.: GEOTAR-Media, 2022. - 672 p. URL: http://www.studentlibrary.ru; 3. Kalmin, O. V. Topography of organs in tables and diagrams: textbook. Manual [Electronic resource] / O. V. Kalmin. - St. Petersburg: SpetsLit, 2017. - 151 p. URL: http://books-up.ru; 4. Nikolaev, A. V. Topographic Anatomy and Operative Surgery: Textbook [Electronic resource] / A. V. Nikolaev. - 3rd ed., corrected. and enlarged. - Moscow: GEOTAR-Media, 2019. - 736 p. URL: http://www.studentlibrary.ru/ 5. Operative Surgery: Textbook on Manual Skills [Electronic resource] / edited by A. A. Vorobyov, I. I. Kagan. - Moscow: GEOTAR-Media, 2015. URL: http://www.studentlibrary.ru/	

3. SUBJECT GUIDES FOR PRACTICAL CLASSES

Table 2. Subject Guides for Practical **Б1.О.46 Topographic anatomy of human head and neck** Classes

Topic No.1 Methods of studying topographic anatomy. Surgical instruments	
Duration of the practical class (in academic hours):	3
Purpose of the practical class: 1. study the classification and stages of surgical interventions, as well as the specifics of their implementation; 2. become familiar with the main groups of surgical instruments; 3. master the techniques of working with general surgical instruments; 4. acquire practical skills in suturing (connecting tissues) and surgical incisions (separating tissues).	
Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration	

Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.

Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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4. Nikolaev, A. V. Topographic Anatomy and Operative Surgery: Textbook [Electronic resource] / A. V. Nikolaev. - 3rd ed., corrected. and enlarged. - Moscow: GEOTAR-Media, 2019. - 736 p. URL: http://www.studentlibrary.ru/
5. Operative Surgery: Textbook on Manual Skills [Electronic resource] / edited by A. A. Vorobyov, I. I. Kagan. - Moscow: GEOTAR-Media, 2015. URL: http://www.studentlibrary.ru/

Topic No.2 Suturing (connecting tissues) and surgical incisions (separating tissues): rules and technique. Bleeding arrest: temporary and complete

Duration of the practical class (in academic hours):	3

Purpose of the practical class:
1. consolidate acquired knowledge of suturing (connecting tissues) and surgical incisions (separating tissues) methods;
2. during the discussion, outline the main methods of stopping bleeding;
3. thoroughly go over definitions and concepts of bleeding arrest;
4. study patterns and distinctive features of venous and arterial bleeding;
5. develop the suturing and surgical incision skills.

Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration

Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.

Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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3. Kalmin, O. V. Topography of organs in tables and diagrams: textbook. Manual [Electronic resource] / O. V. Kalmin. - St. Petersburg: SpetsLit, 2017. - 151 p. URL: http://books-up.ru;
4. Nikolaev, A. V. Topographic Anatomy and Operative Surgery: Textbook [Electronic resource] / A. V. Nikolaev. - 3rd ed., corrected. and enlarged. - Moscow: GEOTAR-Media, 2019. - 736 p. URL: http://www.studentlibrary.ru/

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Topic No.3 Topographic anatomy of the cranial vault and base of the skull: frontal-parietal-occipital, temporal, mammillary regions

Duration of the practical class (in academic hours):	3

Purpose of the practical class:
1. consolidate acquired knowledge of the topographic anatomy of the cranial vault: the frontal-parietal-occipital, temporal, and mammillary regions;
2. during the discussion, outline the key clinical significance and characteristics of these regions;
3. improve the suturing and surgical incision skills.

Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration

Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.

Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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Topic No.4 Topographic anatomy of the facial part of the head: buccal, parotid-masticatory, deep regions of the face

Duration of the practical class (in academic hours):	3

Purpose of the practical class:
1. study the topographic anatomy of the skull base, paying attention to external landmarks and boundaries, muscle topography, vessel and nerve projections, fascia, and cellular spaces;
2. study the topographic anatomy of the facial region, paying attention to external landmarks and boundaries, muscle topography, vessel and nerve projections, fascia, and cellular spaces;
3. study the topographic anatomy of the buccal region, paying attention to external landmarks and boundaries, muscle topography, vessel and nerve projections, fascia, and cellular spaces;
4. study the topographic anatomy of the parotid-masticatory region, paying attention to external landmarks and boundaries, muscle topography, walls, vessel and nerve projections, fascia, and cellular spaces;

5. study the topographic anatomy of the deep area of the face, paying attention to external landmarks and boundaries, muscle topography, walls, projections of vessels and nerves, fascia and cellular spaces.
Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration
Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.
Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.
Recommended reading: 1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.; 2. Kagan, I. I. Topographic anatomy and operative surgery: textbook [Electronic resource] / I. I. Kagan, S. V. Chemezov, etc. - 2nd ed., revised. - M.: GEOTAR-Media, 2022. - 672 p. URL: http://www.studentlibrary.ru; 3. Kalmin, O. V. Topography of organs in tables and diagrams: textbook. Manual [Electronic resource] / O. V. Kalmin. - St. Petersburg: SpetsLit, 2017. - 151 p. URL: http://books-up.ru; 4. Nikolaev, A. V. Topographic Anatomy and Operative Surgery: Textbook [Electronic resource] / A. V. Nikolaev. - 3rd ed., corrected. and enlarged. - Moscow: GEOTAR-Media, 2019. - 736 p. URL: http://www.studentlibrary.ru/ 5. Operative Surgery: Textbook on Manual Skills [Electronic resource] / edited by A. A. Vorobyov, I. I. Kagan. - Moscow: GEOTAR-Media, 2015. URL: http://www.studentlibrary.ru/
Topic No.5 Topography of the facial and trigeminal nerves. Aspects of the blood supply to the soft tissues of the skull

Duration of the practical class (in academic hours):	4

Purpose of the practical class: 1. study the topographic anatomy of the facial nerve, paying attention to external landmarks and boundaries, vessel and nerve projections, fascia and cellular spaces, and age-related characteristics; 2. study the topographic anatomy of the trigeminal nerve, paying attention to external landmarks and boundaries, vessel and nerve projections, fascia and cellular spaces, and age-related characteristics; 3. study the blood supply to the soft tissues of the skull, paying attention to external landmarks and boundaries, vessel projections, fascia and cellular spaces, and age-related characteristics.
Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration
Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.
Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.
Recommended reading:

1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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Topic No.6 Primary surgical debridement of facial wounds. Incisions for phlegmons of the maxillofacial region

Duration of the practical class (in academic hours):	3

Purpose of the practical class:
1. provide a topographic and anatomical explanation of the possible routes of spread of purulent and inflammatory processes and hematomas on the face;
2. during the discussion, outline the classification of purulent diseases of the maxillofacial region;
3. provide a topographic and anatomical justification for surgical treatment methods for facial wounds;
4. improve the suturing and surgical incision skills.

Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration

Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.

Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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Topic No.7 Blood supply of the brain. Sinuses of the dura mater. Cranio-cerebral topography

Duration of the practical class (in academic hours):	3

Purpose of the practical class:
1. study the cerebral blood supply, focusing on the sources of blood supply, topography, vessel and nerve projections, fascia and cellular spaces, and age-related characteristics;
2. study the topographic anatomy of venous outflow from the brain, focusing on the structural and location features of the sinuses, vessel and nerve projections, fascia and cellular spaces, and age-related characteristics;
3. study craniocerebral topographic anatomy, focusing on external landmarks and boundaries, muscle and canal topography, vessel and nerve projections, fascia and cellular spaces, and age-related characteristics;
4. improve the suturing and surgical incision skills.

Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration

Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.

Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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Topic No.8 Primary surgical debridement of skull wounds. Craniotomy

Duration of the practical class (in academic hours):	3

Purpose of the practical class:
1. provide a topographic and anatomical justification for surgical debridement methods for cranial wounds (penetrating and non-penetrating);
2. provide a topographic and anatomical analysis of cranial trepanation sites;
3. provide a topographic and anatomical justification for rational surgical approaches and techniques during cranial trepanation;
4. improve the suturing and surgical incision skills and skills of performing punctures of joints and vessels of the extremities.

Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration

Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.

Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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Topic No.9 Topographic anatomy of the neck: division into triangles, fascia and fascial (potential) spaces

Duration of the practical class (in academic hours):	3

Purpose of the practical class:
1. study the topographic anatomy of the neck;
2. provide a topographic-anatomical analysis of the division of the neck into triangles and explain their clinical significance;
3. provide a topographic-anatomical justification for the significance of fascia and cellular spaces;
4. pay special attention to Shevkunenko's classification of fascia;
5. improve the suturing and surgical incision skills and skills of performing punctures of joints and vessels of the extremities.

Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration

Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.

Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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Topic No.10 Topography of the suprahyoid region, carotid triangle, lateral (posterior) triangle of the neck	
Duration of the practical class (in academic hours):	3
Purpose of the practical class: 1. study the topographic anatomy of the suprahyoid region and determine the clinical significance of the structures located in this area; 2. study and determine the significance of the carotid triangle; 3. determine the boundaries and significance of the lateral triangle of the neck, its constituent regions, and the anatomical structures that comprise it.	
Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration	
Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.	
Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.	
Recommended reading: 1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.; 2. Kagan, I. I. Topographic anatomy and operative surgery: textbook [Electronic resource] / I. I. Kagan, S. V. Chemezov, etc. - 2nd ed., revised. - M.: GEOTAR-Media, 2022. - 672 p. URL: http://www.studentlibrary.ru; 3. Kalmin, O. V. Topography of organs in tables and diagrams: textbook. Manual [Electronic resource] / O. V. Kalmin. - St. Petersburg: SpetsLit, 2017. - 151 p. URL: http://books-up.ru; 4. Nikolaev, A. V. Topographic Anatomy and Operative Surgery: Textbook [Electronic resource] / A. V. Nikolaev. - 3rd ed., corrected. and enlarged. - Moscow: GEOTAR-Media, 2019. - 736 p. URL: http://www.studentlibrary.ru/ 5. Operative Surgery: Textbook on Manual Skills [Electronic resource] / edited by A. A. Vorobyov, I. I. Kagan. - Moscow: GEOTAR-Media, 2015. URL: http://www.studentlibrary.ru/	
Topic No.11 Vascular-nerve bundle of the upper limb, prescalene and interscalene spaces	
Duration of the practical class (in academic hours):	3
Purpose of the practical class: 1. study the topographic anatomy and significance of the vessels and nerves of the upper limb; 2. determine the boundaries and significance of the prescalene space; 3. determine the boundaries and significance of the interscalene space.	
Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration	
Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.	
Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.	

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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Topic No.12 Topography of the neck organs: thyroid and parathyroid glands

Duration of the practical class (in academic hours):	3

Purpose of the practical class:
1. consolidate acquired knowledge of the topographic anatomy of the thyroid organs;
2. study the topographic anatomical location of the thyroid gland;
3. study the topographic anatomical location of the parathyroid glands.

Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration

Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.

Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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Topic No.13 Topography of the neck organs: larynx, trachea, pharynx, esophagus

Duration of the practical class (in academic hours):	3

Purpose of the practical class:
1. study the topographic anatomy of the larynx, paying attention to its layered structure, age-related characteristics, cartilaginous base, and the course of blood vessels and nerves;

2. study the topographic anatomy of the trachea, paying attention to its layered structure, age-related characteristics, cartilaginous base, and the course of blood vessels and nerves;
3. study the topographic anatomy of the pharynx, paying attention to its layered structure, age-related characteristics, bony and cartilaginous base, and the course of blood vessels and nerves;
4. study the topographic anatomy of the esophagus, paying attention to its layered structure, age-related characteristics, bony and cartilaginous base, and the course of blood vessels and nerves.

Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration

Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.

Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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Topic No.14 Vascular access and ligation of the carotid artery. Incisions for phlegmon of the neck

Duration of the practical class (in academic hours):	3

Purpose of the practical class:
1. provide a topographic and anatomical justification for the routes of spread of purulent processes in the neck region, taking into account previously acquired knowledge;
2. discuss approaches and ligation of the carotid artery, taking into account the location of the carotid triangle;
3. discuss incisions for suppurative diseases of the neck, providing a topographic and anatomical justification for them.

Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration

Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.

Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.

Recommended reading:

1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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Topic No.15 Vagosympathetic block according to Vishnevsky. Subclavian vein puncture and catheterization. Tracheostomy. Resection of the thyroid gland

Duration of the practical class (in academic hours):	3

Purpose of the practical class:
1. study the Vagosympathetic block according to Vishnevsky;
2. examine tracheostomy options;
3. clarify the difference between tracheostomy and cricothyrotomy;
4. study thyroid resection techniques;
5. study subclavian vein puncture and catheterization options and determine the clinical significance of this procedure.

Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration

Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.

Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.

Recommended reading:
1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.;
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Topic No.16 Final knowledge control: test, practicing skills (suturing skin, muscles, blood vessels, nerves, tendons; ligation of blood vessels)

Duration of the practical class (in academic hours):	3

Purpose of the practical class: 1. review the material covered; 2. demonstrate technically correct methods for tying surgical knots; 3. demonstrate technically correct methods for applying surgical sutures.
Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, simulation equipment, and subject guides for the discipline. Surgical instrument sets (general and specialized) and suture material for demonstration
Independent work of the student: writing a research paper. Preparing a report on the topic of the corresponding lecture. Working with study materials.
Methods of evaluation of acquired knowledge and skills: discussion of reports, tests, classroom questioning.
Recommended reading: 1. Ostroverkhov, G.E. Operative surgery and topographic anatomy: textbook. for students of med. universities/G.E. Ostroverkhov, Yu.M. Bomash, D.N. Lubotsky.-Ed. 5th, rev.-M. : Medical Information Agency, 2013.-736 p.; 2. Kagan, I. I. Topographic anatomy and operative surgery: textbook [Electronic resource] / I. I. Kagan, S. V. Chemezov, etc. - 2nd ed., revised. - M.: GEOTAR-Media, 2022. - 672 p. URL: http://www.studentlibrary.ru; 3. Kalmin, O. V. Topography of organs in tables and diagrams: textbook. Manual [Electronic resource] / O. V. Kalmin. - St. Petersburg: SpetsLit, 2017. - 151 p. URL: http://books-up.ru; 4. Nikolaev, A. V. Topographic Anatomy and Operative Surgery: Textbook [Electronic resource] / A. V. Nikolaev. - 3rd ed., corrected. and enlarged. - Moscow: GEOTAR-Media, 2019. - 736 p. URL: http://www.studentlibrary.ru/ 5. Operative Surgery: Textbook on Manual Skills [Electronic resource] / edited by A. A. Vorobyov, I. I. Kagan. - Moscow: GEOTAR-Media, 2015. URL: http://www.studentlibrary.ru/

4. GUIDELINES FOR CONTINOUS AND INTERIM ASSESSMENT

Table 3. Guidelines for Conducting Continuous and Interim Assessment during the **Б1.О.46 Topographic anatomy of human head and neck** Course

Type of assessment	Assessment format
Continuous assessment	- conducting and evaluating oral or written quizzes during lectures and practical classes; - assessment and evaluation of completion and results of assignments given during practical classes; - assess and evaluate completion and results of individual assignments and exam tasks given during practical classes; - assessment and evaluation of lecture notes quality.
Interim assessment	is conducted in oral (verbal) test format; it allows to assess the development of students' competencies correlating with types of professional activity.

5 ASPECTS OF THE IMPLEMENTATION OF THE COURSE FOR STUDENTS WITH DISABILITIES AND SPECIAL NEEDS

5.1. Availability of accessible environment

For students with disabilities and special needs, if a written application is submitted, lectures and practical classes are carried out taking into account health limitations, individual capabilities and

medical status (hereinafter referred to as individual characteristics) of the student. Compliance with the following general requirements is ensured: teaching aids for collective and individual use are provided, required technical assistance is provided by an assistant, buildings and premises where lectures and practical classes are taking place meet accessibility requirements, other arrangements lack of which makes it impossible or difficult to master the discipline are made.

5.2. Compliance with general requirements

When lectures and practical classes are carried out at the written application of the student, the following general requirements are met: lectures and practical classes for students with disabilities and special needs take place at the same location as for students who do not have disabilities, if this does not cause difficulties for students; an assistant (assistants), who provide(s) students with the necessary technical assistance taking into account individual characteristics of the student, is (are) provided; necessary teaching aids are provided, taking into account individual characteristics of the student.

5.3. Availability of the internal policies and procedures of FSBEI HE PSMU of the Ministry of Health of Russia to students with disabilities in a form accessible to them.

All internal policies and procedures of FSBEI HE PSMU of the Ministry of Health of Russia concerning the discipline (module) are made available to students with disabilities in a form accessible to them.

5.4. Increase in the duration of interim assessment of students with disabilities and special needs in relation to the established duration

Format of the interim assessment of academic performance within the scope of the discipline for students with disabilities and special needs is selected taking into account individual characteristics (orally, by writing on paper, by typing on a computer, as a test, etc.). The duration of the interim assessment in relation to the established duration is increased at the written application of the student with disabilities. Time limit for the student's preparation for the test is increased by at least 0.5 hours

6. STAFFING REQUIREMENTS OF THE DISCIPLINE

Academic teaching personnel that ensure the implementation of the discipline education process meet the requirements of the Federal State Educational Standard of Higher Education for the 31.05.03 Dentistry for international students (in English) specialty; list of the aforementioned personnel is available on the website of the educational organization.

