Ministry of science and high education RF Ulyanovsk State University	The form	
F-Educational plan of the dicipline		

APPROVED by the decision of the Academic Council of the USU Institute of Medicine, Ecology and Physical Culture «17»мая 2023 № 9/250 Chairman (signature, signature clarification) «17»мая 2023 .

#### **EDUCATIONAL PLAN**

Subject	Topographic anatomy and operative surgery
Faculty	Medicine named after T.Z. Biktimirova
Department	General and operative surgery with topographic anatomy and a course of dentistry
Course	3-4

Speciality 31.05.01. «General medicine»

(code of the speciality, full name) Form of education- full-time education

Date of introducing in the instruction process at USU: « 01 » of September 2023.

The program was updated at the meeting of the department: No	1 of 26	. 06.	200	14.
The program was updated at the meeting of the department: №	of		20	
The program was updated at the meeting of the department: №	of		20	

Information about the authors:

Initials	Abbreviation of the department	Degree, scientific rank
Gnoevoy Vitaly V.	General and operative surgery with topographic anatomy and the course of dentistry	PhD, senior Lecturer

Agreed	Agreed
Head of department of general and operative surgery with topographic anatomy and the course of dentistry, developing discipline /Smolkina A.V/ /Smolkina A.V/ / 	Head of the graduating Department hospital therapy <u>Machanal /</u>

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### 1. Aims OBJECTIVES AND DEVELOPMENT COURSES

#### The objectives of development disciplines:

**goals** - BUTNat-surgical preparation of students required for the subsequent lessons on clinical departments, primarily surgical, and independent medical practice; formation of students' knowledge of the system, taking into account individual variability of organs, blood vessels, nerves; formation of students' abilities to apply their topographic anatomical knowledge to support the diagnosis, explaining the features of the pathological processes, diagnostic solutions and operative surgical tasks; mastery of elementary students operational activities and some types of surgical techniques, the formation of professional competencies.

#### Tasks:

- formation of students' knowledge of topographic anatomy of the areas, organs and systems, focusing on clinically important anatomical and functional features;

- formation of students' abilities to apply their topographic anatomical knowledge to support the diagnosis, explaining the features of the pathological processes, diagnostic solutions and operative surgical tasks.

- students master the basic operational activities and some types of surgical techniques.
- formation of professional competence.

#### 2. PLACE OF THE SUBJECT IN THE STRUCTURE PLEU

Discipline "Topographical anatomy and operative surgery" refers to the base portion The development of the discipline is based on the knowledge and skills generated by previous disciplines and practices: anatomy, histology, biology, general surgery.

It is prior to study disciplines: pathological anatomy, clinical pathological anatomy; medical rehabilitation; neurology, medical genetics, neurosurgery; otolaryngology; ophthalmology; forensic Medicine; obstetrics and gynecology; pediatrics; propaedeutics internal medicine, radiodiagnostics; faculty therapy, occupational diseases; hospital therapy, endocrinology; phthisiology; polyclinic therapy; general surgery, radiation diagnosis; anesthesiology, intensive care, intensive therapy; Faculty surgery, urology; Hospital surgery, pediatric surgery; dentistry; oncology, radiation therapy; traumatology, orthopedics.

# **3.** The list of planned learning outcomes for subjects (modules), correlated with the planned result of the development of vocational education programs

The study of discipline "Topographical anatomy and operative surgery" in the development of the discipline of the material is aimed at developing students following of general and professional competencies in accordance with the GEF IN:

Competence index. Content of a competence	The proposed results of the course students
(or a part of it)	are:
GPC-1	Know: the relationship "doctor-patient",
Able to implement moral and legal norms,	"doctor-relatives"; moral and ethical standards,
ethical and deontological principles in	rules and principles of professional medical
professional activities	behavior, the rights of the patient and the
	doctor; basic ethical documents of
	international and domestic professional
	medical associations and organizations.

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	and patie techniqu commun the techr the proce Own: me professio regulatio	to: protect the civil rights of doc ents of different ages; apply es and techniques of effective lication in professional activities niques of self-regulation of beha ess of interpersonal communicat ethods of effective communication on al activities; methods of self- on of behavior in the process of conal communication.	; use vior in ion.
GPC-4 Able to use medical devices provided for by the procedure for the provision of medical care, as well as conduct examinations of a patient in order to establish a diagnosis	Russian health, th documer organiza organiza health of of disabi the popu preventi- diseases; clinical p possible diseases age grou capabilit a patient infectiou laborator (includir ultrasour diagnosi pharmac groups o specific patholog emergen basics of the provi diseases gynecolo	he basics of the legislation of the Federation on the protection of the main regulatory and technica ints; basic principles of managem tion of medical care to the popu- tion of medical control over the E the population, issues of exami- lity and medical and legal assist lation; etiology, pathogenesis ar we measures for the most commo- g modern classification of diseas picture, characteristics of the con- complications of the most comm- occurring in a typical form in di- ps; diagnostic methods, diagnos- ies of methods of direct examin- of a therapeutic, surgical and as profile, modern methods of cl- ry instrumental examination of p- ng endoscopic, radiological meth- nd diagnostics); criteria for the s of various diseases; clinical an- ological characteristics of the ma- fical syndromes of diseases and cy conditions in patients, includ f anti-doping legislation; proced- ision of medical care for the ma- fical syndromes of diseases and cy conditions in patients, includ f anti-doping legislation; proced- ision of medical care for the ma- fical syndromes of diseases and cy conditions in patients, includ f anti-doping legislation; proced- ision of medical care for the ma- fical syndromes of diseases and cy conditions in patients, includ f anti-doping legislation; proced- ision of medical care for the ma- fical syndromes of diseases and cy conditions in patients, includ f anti-doping legislation; proced- ision of medical care for the ma- fical syndromes, surgical, obs- based and other profiles.	public annation; state of nation ance to ad on es; urse and non afferent tic ation of d ain of inical, batients nods of d ain of in ing the ures for in tetric-

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	palpation, auscultation, blood pressure measurement, determination of the properties of the arterial pulse, etc.) .); assess the patient's condition in order to make a decision on the need to provide him with medical care; to conduct a primary examination of systems and organs: nervous, endocrine, immune, respiratory, cardiovascular, blood and hematopoietic organs, digestive, urinary, reproductive, musculoskeletal and joints, eyes, ear, throat, nose; to set priorities for solving the patient's health problems: critical (terminal) condition, condition with pain syndrome, condition with chronic disease, condition with infectious disease, disability, geriatric problems; to make a preliminary diagnosis - to synthesize information about the patient in order to determine the pathology and the reasons that cause it; outline the volume of additional studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a sufficient result; formulate a clinical diagnosis; develop a plan of therapeutic (surgical) actions, taking into account the course of the disease and its treatment; formulate indications for the chosen method of treatment, taking into account etiotropic and pathogenetic agents, substantiate pharmacotherapy in a particular patient with major pathological syndromes and emergency conditions, determine the route of administration, regimen and dose of drugs, assess the effectiveness and safety of the treatment; apply various methods of drug administration.
<b>GPC-6</b> Able to organize patient care, provide primary health care, ensure the organization of work and make professional decisions in case of emergency conditions at the prehospital stage, in emergency situations, epidemics and in outbreaks of mass destruction	Know: functional responsibilities of nursing staff, ward and procedural nurses; deontological aspects of patient care; fundamentals of the legislation of the Russian Federation on the protection of public health, basic regulatory and technical documents; basic principles of management and organization of medical care to the population; the basics of legislation on the sanitary and epidemiological welfare of the population, the

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main regulatory documents for the prevention of nosocomial infections, the organization of the work of junior and paramedical personnel in medical organizations; the basics of preventive medicine, the organization of preventive measures aimed at strengthening the health of the population; methods of sanitary and educational work; organization of medical control over the state of health of the population, maintenance of standard accounting and reporting medical documentation in medical organizations; organization of work of junior and middle medical personnel in medical organizations; the basics of the organization of medical (outpatient and inpatient) care for various groups of the population, the criteria for the diagnosis of various diseases; features of first aid and resuscitation measures to victims of road traffic injuries, drowning, electrical injury, strangulation asphyxia, methods of restoring patency of the upper respiratory tract.

Be able to: organize patient care; to plan, analyze and evaluate the quality of medical care, the state of health of the population and the influence of environmental and working environment factors on it; participate in the organization and provision of medical and preventive and sanitary and anti-epidemic assistance to the population, taking into account their social and professional (including professional sports) and age-sex structure; carry out preventive, hygienic and anti-epidemic measures; determine the patient's status: collect anamnesis, interview the patient and / or his relatives, conduct a physical examination of the patient (examination, palpation, auscultation, blood pressure measurement, determination of the properties of the arterial pulse, etc.); apply various methods of drug administration; to make a preliminary diagnosis - to synthesize information about the patient in order to determine the pathology and the reasons that cause it; examine patients with various traumatic injuries, with purulent-septic conditions, identify life-threatening disorders in bleeding, apply transport splints, bandages

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	and kerchiefs, administer medications through drains and microirrigators, assess the suitability of blood and its preparations for transfusion, monitor hemodynamic parameters and breathing; carry out resuscitation measures in the event of clinical death; to carry out measures with the population of the attached area for the primary and secondary prevention of the most common diseases requiring therapeutic or surgical treatment, carry out preventive measures to increase the body's resistance to unfavorable environmental factors using various methods of physical culture and sports, hardening, and promote a healthy lifestyle; fill out a medical history, write a prescription.
	Own: methods of organizing patient care, the quality of medical care; own methods for the provision of primary pre-medical health care; the method of medical examinations and the appointment of medical measures.
GPC-9 Able to implement the principles of quality management in professional activities	Know: etiology, pathogenesis, diagnosis, treatment, prevention of the most common surgical diseases; precautions, special clothing; the clinical picture, features of the course and possible complications of the most common diseases occurring in a typical form; features of the provision of medical care in emergency conditions; modern methods of clinical, laboratory and instrumental diagnostics of patients, surgical profile; general principles and peculiarities of diagnostics of hereditary diseases and congenital anomalies; types and methods of prevention of postoperative pulmonary complications; features of intensive care; requirements and rules for obtaining informed consent from the patient for diagnostic and treatment procedures; basic principles of diagnostics, treatment and rehabilitation of infectious patients, indications for hospitalization of patients with infectious diseases; peculiarities of collecting highly pathogenic biological materials; implementation of specific and non-specific prophylaxis of infectious diseases;

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epidemiology of infectious, parasitic and non-
infectious diseases, implementation of anti-
epidemic measures, protection of the
population in the centers of especially
dangerous infections, in case of deterioration
of the radiation situation and natural disasters;
the basics of organizing outpatient and
inpatient care for the population, modern
organizational forms of work and diagnostic
capabilities of the polyclinic service; the main
clinical manifestations of skin and sexually
transmitted diseases, human
immunodeficiency virus (HIV) and sexually
transmitted infections; - features of the
organization of work with patients with HIV
infection; the basics of organizing outpatient
and inpatient care for the population, modern
organizational forms of work of tuberculosis
dispensaries, the main clinical manifestations
of tuberculosis of internal organs, features of
the organization of work with patients with
tuberculosis infection; requirements and rules
for obtaining informed consent from the
patient for diagnostic and treatment
procedures; methods of carrying out urgent
measures and indications for hospitalization of
patients; the main clinical manifestations of
diseases of the nervous system, oncological
pathology, especially their diagnosis and
monitoring; general principles and
peculiarities of diagnostics of hereditary
diseases and congenital anomalies of the
nervous system.

To be able to: collect a complete medical history of the patient, conduct a survey of the patient, his relatives (collect biological, medical, psychological and social information); conduct a physical examination of a patient of different ages (examination, palpation, auscultation, measurement of blood pressure (BP), determination of pulse characteristics, respiratory rate), send him for laboratory and instrumental examination, for a consultation with specialists; interpret the results of the examination, make a preliminary diagnosis to the patient, outline the amount of additional studies to clarify the diagnosis; formulate a clinical diagnosis; develop a treatment plan taking into account the course

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	<ul> <li>therapy,</li> <li>carry ou</li> <li>of a surg</li> <li>disorder</li> <li>situation</li> <li>situation</li> <li>and disle</li> <li>cavity b</li> <li>pneumo</li> <li>quality of</li> <li>the population</li> <li>factors,</li> <li>of media</li> <li>and first</li> <li>anaphyla</li> <li>respirato</li> <li>epileptic</li> <li>situation</li> <li>practice</li> <li>Own: ow</li> <li>his relation</li> </ul>	wn methods of interviewing a pat ives (collect biological, medical, ogical and social information); ology for examining a patient of	ases ning ncy ncy acture 1 h of ation ion , er ck,

#### 4.Volume of the subject

#### 4.1. Volume of the subject in credit points (total): 6 credit points

	Number of hours (training form - full-time)							
Kind of study	All according	Includin	g by semester					
	to plan	semester number	semester number					
		4	5					
Contact work enrolled with the teacher in accordance with MPS	93	-	-					
Auditory lessons:	93	51	42					
lectures	17	17	-					
Seminars and workshops	76 of them in an interactive way 24	34	42					
Laboratory work, workshops	-	-	-					
Independent work	87	3	84					
The shape of the current	-	-	-					

### 4.2. On types of academic workload (in hours): 216

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knowledge of the control			
and monitoring of			
independent work:			
testing, essay,			
presentation, problem			
solving			
Course work	-	-	-
Forms intermediate	36	-	
certification. (Test).			
(Exam).			
Total hours on discipline	216	54	126

If it is necessary to use partially or exclusively remote educational technologies in the educational process, the table shows the number of hours of work of teaching staff with students for conducting classes in a remote format using e-learning.

#### 4.3. Contents (unit). Distribution of hours for topics and types of study: Mode of study: Full-time

		Types of studies					
		Audito		ssons	Take-	Indepe	The shape
Name and sections and topics	Total	Lek- tion	Cal- practic al classes, semina r	Labor a- Tornio works, practica l Kum	ment in INTER - hydroc hloric ktiv- form	ndent work	of the current control of knowledg e
one	2	3	4	5	6	7	
	~ ~ ~	6 sem					
			ntroductio	n.	1		
Theme 1.Methods of study of	5	2	2	-	-	1	tests
topographic anatomy. Total							
surgical technique.	~						
		tion 2.	Of course	•			
Theme 2. Topographic anatomy	3	1	2	-	-	-	Tests, poll
of the shoulder girdle areas.							
Theme 3. Topography of the	3	1	2	-	-	-	Tests, poll
shoulder and elbow, the forearm.							
Theme 4. Topographic anatomy	3	1	2	-	-	-	Tests, poll
of the back and palm of the hand							
surface,							
wrist joint. Operations with							
chronic inflammatory diseases of							
the upper limb. Blockade. Tendon							
suture.							<b></b>
Theme 5. Topography buttocks	3	1	2	-	-	-	Tests, poll
and thighs, the hip joint.							
Topic 6. Topography of the knee,	3	1	2	-	-	-	Tests, poll

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popliteal fossa, the lower leg, ankle and foot.							
Theme 7. Operations on the bones and joints of the limbs.	3	1	2	-	2	-	Tests, poll
Theme 8. Amputation and disarticulation of limbs.	5	1	2	-	2	2	Tests, poll
9. Thread operations on vessels and nerves of the upper and lower	3	1	2	-	2	-	Tests, poll
extremities. Projection limb anatomy SORT Subject 10. Technique skills	3	1	2				Tests poll
subject 10. Technique skins sections "of course". Pho wounds. Exposure of limbs SNP. Incisions in purulent diseases of the lower limbs.	-			_	-		Tests, poll
		Section	3. Head				
Tema11. Topographic anatomy of the cerebral part of the head. Operations in the calvaria. Pho wounds.	3	1	2	-	2	-	Tests, poll
Tema12. The topography of the facial region of the skull. Operation for facial skull department. Pho wounds.	3	1	2	-	-	-	Tests, poll
		Section	4. Neck				
Subject 13. Topographic anatomy	3	1	2	-		-	Tests, poll
and operative surgery of the neck. Subject 14.PECVD neck wounds. Outcrop SNP neck. Operations in	3	1	2	-	2	-	Tests, poll
the organs of the neck.	C	1: 5	 				
		$\frac{1}{1}$	hest cavit	y		T	<b>T</b> 11
Subject 15 Surgical Anatomy of the chest wall, breast, pleura, lung.	3	1	2	-	-	-	Tests, poll
Tema16. Surgical anatomy of the mediastinum.	3	1	2	-	-	-	Tests, poll
Subject 17. Operations in the thoracic cavity, mediastinum organs.	3	1	2	-	2	-	Tests, poll
Total per semester	54	17	34	-	12	3	tickets on competitio n
		7 sem					
		Section		Γ		-	
Subject 18. Topography anterolateral abdominal wall. Weak spots.	12	-	5	-	-	8	Tests, poll
Subject 19. Surgical anatomy of the inguinal, umbilical and	6	-	5	-	3	8	Tests, poll
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femoral hernias. Hernia repair and							1
plastic.							
Subject 20. Topographical	12		5			8	Tests, poll
anatomy of the upper abdominal	12	-	5	-	-	Ŭ	rests, pon
organs							
Theme 21. Topographic anatomy	12		5		3	8	Tests, poll
of the organs of the lower floor of	12		5	_	5	0	rests, pon
the abdominal cavity. General							
principles of imposition of							
intestinal sutures. Technique							
perform basic operations on the							
small and large intestine.							
Theme 22.Operations on organs	6	_	5	_	_	8	Tests, poll
upper abdomen	Ū		C			Ũ	10500, p 011
Subject 23. The operations on the	6	_	5	_	_	8	Tests, poll
abdominal organs.	-		-			-	, <b>F</b>
Subject 24. The topography of the	6	-	4	-	3	8	Tests, poll
lumbar region and retroperitoneal							· 1
space. Technique of surgical							
interventions on the organs of the							
retroperitoneal space							
Subject 25. The operations on the	6	-	4	-	-	8	Tests, poll
abdominal organs and							-
retroperitoneum							
Subject 26 Topographic anatomy	12	-	4	-	3	8	Tests, poll
of the pelvis and perineum. Pelvic							
surgery and perineum.							
	secti	on 7.Po	zvonochn	ik			
Subject 27. Operative surgery and	12	-	-	-	-	12	Tests, poll
topographic anatomy of the spine.							
EXAM	36	-	-	-	-	-	tickets
<u>Total per semester</u>	126	-	42	-	12	84	_
All for discipline	216	17	76	-	24	87	

#### **Note-Abbreviation:**

SORT neurovascular bundle, PECVD-primary debridement.

#### **5. COURSE CONTENT**

#### Section 1. Introduction.

#### Theme 1. Methods of study of topographic anatomy. Total surgical technique.

The object and purpose of operative surgery and topographic anatomy, the place of discipline in the system of higher medical education. Russian surgical school. Basic concepts of topographic anatomy: the region and its borders, the projection of anatomical structures on the surface, golotopiya, skeletopy, Syntopy bodies fascial sheath, neurovascular structures, cellular spaces, collateral circulation. the doctrine of

individual variability of human organs and systems. Modern methods of study of topographic anatomy. Operative Surgery and its tasks. The doctrine of the surgery. Classification of surgical operations. Elementary surgical actions, surgical techniques, stages of the operation. Surgical instruments, and its

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classification. Characteristics of the suture. The methods of local anesthesia. General principles of primary surgical treatment of wounds. The concept of simultaneous, microsurgical, endoscopic, endovascular, cosmetic and aesthetic surgery. General principles of transplantation of organs and tissues.

#### Section 2. Of course.

#### Theme 2. Topographic anatomy of the shoulder girdle areas.

General characteristics of the areas of the upper limb. Border area, external body landmarks. Landanatomical layers, thickness, mobility, particularly division, musculo-fascial bed, intermuscular cellular spaces, distribution purulent streaks, tendon-ligament formation, intermuscular spaces, grooves, holes, channels and their contents, capsules, mucous bags, inversions, weaknesses of large joints. NVB: composition, sources of their formation and Syntopy elements branches anastomoses. Zone sensory and motor innervation. Regional lymph nodes.

#### Theme 3. Topography of the shoulder and elbow, forearm

General characteristics of the areas of the upper limb. Border area, external body landmarks. Landanatomical layers, thickness, mobility, particularly division, musculo-fascial bed, intermuscular cellular spaces, distribution purulent streaks, tendon-ligament formation, intermuscular spaces, grooves, holes, channels and their contents, capsule, mucous bags, inversions, weaknesses of large joints. NVB: composition, sources of their formation and Syntopy elements branches anastomoses. Zone sensory and motor innervation. Regional lymph nodes. Superficial and deep venous system. Incisions in phlegmon brush and felon. Autopsy abscesses limbs.

#### Theme 4. Topographic anatomy of the back and palm of the hand surface,

### wrist joint. Operations with chronic inflammatory diseases of the upper limb. Blockade. tendon suture

General characteristics of the areas of the upper limb. Border area, external body landmarks. Landanatomical layers, thickness, mobility, particularly division, musculo-fascial bed, intermuscular cellular spaces, distribution purulent streaks, tendon-ligament formation, intermuscular spaces, grooves, holes, channels and their contents, capsules, mucous bags, inversions, weaknesses of large joints. NVB: composition, sources of their formation and Syntopy elements branches anastomoses. Zone sensory and motor innervation. Regional lymph nodes.

#### Theme 5. Topography buttocks and thighs, the hip joint.

General characteristics of the areas of the upper limb. Border area, external body landmarks. Landanatomical layers, thickness, mobility, particularly division, musculo-fascial bed, intermuscular cellular spaces, distribution purulent streaks, tendon-ligament formation, intermuscular spaces, grooves, holes, channels and their contents, capsules, mucous bags, inversions, weaknesses of large joints. NVB: composition, sources of their formation and Syntopy elements branches anastomoses. Zone sensory and motor innervation. Regional lymph nodes. Superficial and deep venous system. Autopsy abscesses limbs. Principles and techniques of primary surgical treatment of wounds of limbs.

#### Topic 6. Topography of the knee, popliteal fossa, the lower leg, ankle and foot.

Projections of extremities SNP. General principles of peripheral vascular surgery. Collateral blood flow to the extremities. Venipuncture and venesection. Catheterization of the great vessels. Ligation of vessels in the wound and over. Vascular suture, plastic and reconstructive vascular surgery, varicose and postthrombophlebitic disease. The concept of microsurgical techniques in vascular surgery. Forming operation of the hemodialysis vascular access. Operations on the nerves and tendons. The blockade of nerve roots and plexus, nerve suture, the concept of neurotomy, neurolysis, nevrektomii and plastic surgery on the nerves.

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#### Subject 7.Operatsii on the bones and joints of the limbs.

Operations on joints: puncture, arthrotomy, resection. Surgery on the bones: the concept of the osteotomy, resection surgery for osteomyelitis of tubular bones of the extremities. Typical displacement of bone fragments at bone fractures of upper and lower limbs. Skeletal traction, osteosynthesis (ekstramedulyarny, intramedullary, extrafocal). Tendon suture Lange, Kühne, Kazakov.

#### Theme 8. Amputation and disarticulation of limbs.

limb amputation. General principles truncated limbs. Types of amputations, depending on the manner of implementation, the nature of flaps, the composition of the tissues that make up the flaps. Techniques for processing vessels, nerves, bones and the periosteum. Principles of formation of amputation stump. Naughty stump. Truncation fingers. Cinematization (falangizatsiya) stump forearm and hand. Replantation of fingers and toes.

### 9. Thread operations on vessels and nerves of the upper and lower extremities. Projection anatomy limbs SNP.

Ligation of vessels in the wound and over. Vascular suture, plastic and reconstructive vascular surgery, varicose and postthrombophlebitic disease. The concept of microsurgical techniques in vascular surgery. Forming operation of the hemodialysis vascular access. Operations on the nerves and tendons. The blockade of nerve roots and plexus, nerve suture, the concept of neurotomy, neurolysis, nevrektomii and plastic surgery on the nerves.

# Subject 10. Technique skills sections "of course". Pho wounds. Exposure of limbs SNP. Incisions in purulent diseases of the lower limbs.

Equipment isolation neurovascular bundle. Place sections for the production of pus.

#### Section 3. Head.

### Topic 11. Topographic anatomy of the cerebral part of the head. Operations in the calvaria. Pho wounds.

Border areas: the frontal-parietal-occipital, temporal, mastoid region. The layers and their characterization, blood vessels and nerves, cellular spaces. The structure of the set of bones

skull and mastoid. The outer and inner base of the skull. Epidural and intrathecal space. Features of arterial blood supply and venous drainage from the brain, cerebrospinal fluid of the brain system. Schemes craniocerebral topography. Side face area. soft tissue layers and topographic anatomical characteristics. Sucking pad. Arterial blood supply to areas of the face and venous drainage, innervation.

Primary non-invasive and surgical treatment of penetrating wounds. Methods for stopping bleeding in damaged soft tissues, calvarial bone, middle artery of the dura mater, venous sinuses, brain vessels. Resection and osteoplastic craniotomy operations with depressed skull fractures, plastic bone defects of the cranial vault, trepanation of the mastoid process. The concept of the surgical treatment of brain abscesses, draining of operations in hydrocephalus.

### Theme 12. The topography of the facial region of the skull. Operation for facial skull department. Pho wounds.

The projection of the branches of the facial nerve, parotid duct, places the trigeminal nerve branch of the bone channel. Regional lymph nodes person. Okoloushnozhevatelnaya area. Zanizhnechelyustnaya fossa, parotid gland, neurovascular structures, peripharyngeal cellular spaces. Deep facial area. Pterygoid venous plexus and its role in hematogenous path of infection. Maxillary artery, mandibular nerve and its branches, cellular spaces, distribution purulent streaks in

neighboring areas. Infraorbital and submental area. Primary surgical treatment of wounds of the

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maxillofacial area. An autopsy phlegmon of the maxillofacial region. The concept of cosmetic and aesthetic surgery on his face.

#### Section 4. Neck.

#### Subject 13. Topographic anatomy and operative surgery of the neck.

Topographic anatomy of the lateral triangle of the neck. Intermuscular intervals. Clinical anatomy of the closed and open fascial sheaths neck anatomical and physiological study of surgery on the neck. Topographic anatomy of the neck triangles and intermuscular intervals. Clinical anatomy of the neck organs: larynx, pharynx, esophagus, trachea, thyroid, parathyroid and submandibular glands. Anatomical and physiological study of surgery on the neck.

#### Subject 14.PECVD neck wounds. Outcrop SNP neck. Operations in the organs of the neck.

Surgical instruments. Primary surgical debridement. Neck vagosympathetic blockade on AV Vishnevsky, brachial plexus block for Kullenkampfu. Puncture and catheterization of the subclavian vein. Outcrop and catheterization

thoracic duct. Accesses to the sleepy and subclavian artery. Surgery on the trachea, thyroid, esophagus. Tracheostomy, konikotomiya. Cosmetic surgery on the neck. Autopsy superficial and deep abscesses of the neck.

Primary non-invasive and surgical treatment of penetrating wounds. Ways to stop bleeding when damaged soft tissues, bones of the skull, cervical vagosympathetic blockade on AV Vishnevsky, brachial plexus block for Kullenkampfu. Tracheostomy, konikotomiya.

#### Section 5. chest cavity.

#### Subject 15. Surgical Anatomy of the chest wall, breast, pleura, lung.

Chest wall. Border, external benchmarks, the projection of the pleura, organs, heart valves, aortic, pulmonary trunk and large vessels in the chest wall. Aperture, its structure, weak diaphragm seat. Mammary gland: its structure, cellular spaces, blood supply, innervation, the regional lymph nodes. Chest cavity. Pleural cavity, sinuses, mezhplevralnye field, lungs, trachea and bronchi. Breast surgery for malignant and benign tumors. The concept of the plastic and aesthetic breast surgery. Types thoracotomy. Surgeries in penetrating wounds of the chest and the valve pneumothorax. The concept of surgical methods for the treatment of acute and chronic empyema and lung abscess. The concept of pneumonectomy, lobectomy, segmentectomy. Incisions in purulent mastitis. The puncture of the ribs. pleural cavity. Plevromyshechny and polispastny seams. Subperiosteal resection Pericardiocentesis, pericardiotomy

#### Subject 16. Surgical anatomy of the mediastinum.

Mediastinum, borders, division organs. Anatomical and physiological study of surgical interventions. Aneurysm of the aortic arch. Surgical approaches to the heart. Pericardiocentesis, pericardiotomy. The seam of the heart. Principles of operations for congenital and acquired heart diseases and large vessels in ischemic heart disease. The concept of extracorporeal circulation and heart transplants. Accesses to the thymus. Removal of foreign bodies from the esophagus. probing the esophagus. Line access to the thoracic esophagus. The concept of transplevralnoy esophageal resection of modern methods esophagoplasty. An autopsy purulent mediastinitis.

#### Tema17. Operations in the thoracic cavity, mediastinum organs.

Incisions in purulent mastitis. The puncture of the pleural cavity. Plevromyshechny and polispastny seams. Subperiosteal resection ribs. Pericardiocentesis, pericardiotomy.

#### Section 6. Belly.

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#### Subject 18. The topography of the anterolateral abdominal wall. Weak spots.

Border, external benchmarks, the projection of organs and neurovascular structures in the front wall. Individual and age differences shapes the abdomen. abdomen: the front side wall, abdomen, lumbar region and retroperitoneal space. Topographic anatomy of the vagina rectus muscles, the lateral abdominal wall. Topographic and anatomical conditions of education linea alba hernias, umbilical, inguinal.

**Subject 19.**Surgical anatomy of the inguinal, umbilical and femoral hernias. Hernia repair and plastic. Surgical anatomy of the abdominal hernias: umbilical, oblique and direct inguinal, moving, birth. Postoperative hernia. Anatomical and physiological study of surgical interventions. Surgical instruments and equipment. Operations on the anterior abdominal wall hernias: inguinal, femoral, umbilical, linea alba. Abdominal puncture (paracentesis). The concept of laparoscopic surgery.

#### Subject 20. Topographical anatomy of the upper abdomen.

Structure and function of the peritoneum, floors, bags, sinus canals pockets. Clinical anatomy of the abdominal esophagus, stomach, duodenum, liver, gallbladder and extrahepatic bile ducts, spleen, pancreas. Features arterial blood supply to organs and the venous outflow. Innervation of the organ, the regional lymph nodes.

#### Theme 21. Topographic anatomy of the organs of the lower floor of the abdominal cavity. General principles of imposition of intestinal sutures. Technique perform basic operations on the small and large intestine.

The topography of the small and large intestine. The course of the peritoneum in the lower floor, the connection formations peritoneum in the abdomen. Revision of the abdominal cavity in penetrating wounds. Theoretical bases and methods of superimposing intestinal sutures. Resection of the small and large intestines, the technique of forming anastomosis "end to end", "side to side", "end to side" with and without opening. Appendectomy, removal Mekkeleva diverticulum. Fecal fistula, unnatural anus. Operations at megacolon and Hirschsprung's disease.

#### Theme 22. Operations on organs upper abdomen

Surgery on the stomach and duodenum. Closure perforated ulcer, gastrotomy, gastrostomy, gastrostomy, stomach resection Billroth Billroth-1 and-2 (a modification of a Hofmeister-Finsterer mezhpetelnym anastomosis by Brown). Vagotomy draining operations. Operations at hiatal hernia Nissen. Surgical treatment of congenital pyloric stenosis.

#### Subject 23. The operations on the abdominal organs.

of the liver and biliary tract operation. Blockade of the round ligament liver, liver wound suture anatomical and atypical liver resection; the concept of surgical treatment of liver abscesses; portal hypertension. Cholecystectomy, cholecystostomy forming biliodigestive anastomoses. The concept of a liver transplant. Operations in the spleen. The seam of the spleen, splenectomy, spleen autotransplantation in traumatic injuries. Operations in the pancreas. Accesses to the pancreas. The concept of operations in acute and chronic pancreatitis, cysts and abscesses.

### Subject 24.The topography of the lumbar region and retroperitoneal space. Technique of surgical interventions in the retroperitoneal space.

Projection organs and large vessels retroperitoneum to the skin of the abdominal wall and the anterior lumbar region. Individual and age features. Medial and lateral sections, layers and their characterization, blood vessels, nerves. Weaknesses, cellular spaces. Regional lymph nodes. Clinical anatomy of the kidneys, adrenal glands and ureters. Topographic anatomy of the abdominal aorta, inferior vena cava, a steam room and hemiazygos veins, formation of thoracic duct, lumbar plexus and its nerves, sympathetic trunks and plexuses. Surgical instruments and equipment. Perirenal blockade

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on Vishnevsky. Seam kidney, partial nephrectomy, nephropexy, pielotomiya, nephrectomy. The concept of renal transplantation. Suture ureter, plastic surgery for defects ureters.

#### Subject 25. The operations on the abdominal organs and retroperitoneum.

Individual, gender and age features of the structure of the pelvis and pelvic wall. Pelvic floors. The course of the peritoneum in the male and female pelvis, the fascia and cellular tissue of the pelvis area. Urogenital and anal triangles: layers and their characteristics, neurovascular structures and cellular spaces. External genitals in both men and women. The crotch portion of the rectum, especially arterial blood supply and venous drainage, the regional lymph nodes.

#### Subject 26. Topographic anatomy of the pelvis and perineum. Pelvic surgery and perineum.

Surgical instruments and equipment. Novocaine blockade of the spermatic cord and the round ligament of the uterus. Blockade of the pudendal nerve, intrabasin blockade on Selivanov-Shkolnikov-Tsodyksu. Operations in the bladder: Puncture bladder cystotomy, cystostomy, suturing the wound bladder. The concept of the plastic bladder. about adenoma and prostate cancer surgery. Culdocentesis, vaginotomy, surgery for an ectopic pregnancy. Surgery for hemorrhoids, rectal prolapse. Operations at undescended testis; hydrocele and spermatic cord, with phimosis and paraphimosis. The concept of operations for male and female infertility. Drainage of pelvic abscesses.

#### Section 7. Spine.

#### Subject 27. Operative surgery and topographic anatomy of the spine.

Departments, external benchmarks. The spine and the spinal canal. Individual and age differences of the spine and spinal cord. Spinal cord membranes, nerve roots. Skeletopy spinal segments. Blood supply, venous drainage. Anatomical and physiological study of surgical interventions. Surgical instruments and equipment. A lumbar puncture. Laminectomy. Surgical methods for spinal fixation in fractures. Reconstructive and stabilizing spinal surgery. Operations at anomalies of the spine, spinal hernia.

#### 6. TOPICS practical and seminars

### Subject number 1. Methods of studying topographical anatomy. Total surgical technique.

Form of activity - practical session.

questions:

- 1. Classification of surgical instruments, its application. Total surgical instruments.
- 2. The basic principles of disconnecting and connecting tissues.
- 3. Types of surgical knots, suture, suture methods.
- 4. Basic Methods temporary and final stop bleeding in the wound.
- 5. Principles PECVD soft tissue wounds.
- 6. Indications for use of primary, primary and secondary seams delayed.

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The concept of simultaneous, microsurgical, endoscopic, endovascular, cosmetic and aesthetic surgery. General principles of transplantation of organs and tissues.

#### Subject number 2. Topographic anatomy of the shoulder girdle areas.

Form of activity - practical session. *questions:* 

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- 1. The deltoid region, border, layered topography.
- 2. Subdeltoid cellular spaces and its relation to other areas.
- 3. Topography vessels and nerves surrounding the surgical neck of the humerus.
- 4. Scapular region, musculoskeletal landmarks, osteo-fibrous bed and its contents.
- 5. Major neurovascular bundle scapular region.
- 6. Paddle anastomatichesky circle and its role in the development of collateral circulation in the ligation of the axillary artery.
- 7. The spread of inflammation from the shoulder area.
- 8. Ligaments, muscles surrounding the shoulder joint. Why in the shoulder joint may be "usual" dislocation.
- 9. The projection of the joint space, the line of attachment of the joint capsule and its weaknesses.
- 10. Subclavian area: borders, external orientation, layering structure.
- 11. Superficial and deep subpektoralnye cellular spaces
- 12. Axillary region: external orientation, borders, stratified structure.
- 13. The topography of the axillary artery and its relationship with the branches of the brachial plexus of triangles.
- 14. The nature of the structure of fiber and peculiarities of abscesses armpit. Five groups of lymph nodes.

#### Subject Number 3. Topography of the shoulder and elbow, the forearm.

Form of activity - practical session.

questions:

- 1. External reference points and border the shoulder and the elbow area.
- 2. The topography of the transverse cuts shoulder at the upper, middle and lower thirds.
- 3. The main neurovascular bundle anterior shoulder area.
- 4. Neurovascular bundle posterior shoulder area.
- 5. Internal guidelines for access to the radial nerve in the middle third of the shoulder.
- 6. External benchmarks and ulnar border area.
- 7. Neurovascular bundle the elbow area.
- 8. Elbow and weaknesses of its capsule.
- 9. Levels ligation of the brachial artery in the shoulder and the elbow fossa.
- 10. External reference points, borders, the division of the forearm.
- 11. The front bed forearm fascial layers. neurovascular bundle.
- 12. Topography neurovascular structures at the top, middle and bottom thirds of the forearm.
- 13. Cellular spaces Pirogov-Parona and its relationship with the spaces of the hand and the elbow area.
- **14.** The rear and lateral fascial bed forearm layers neurovascular bundles.

#### Theme 4. Topographic anatomy of the back and palm of the hand surface,

#### wrist joint. Operations with chronic inflammatory diseases of the upper limb. Blockade. Tendon suture.

Form of activity - practical session.

questions:

- 1. Field of the wrist and hand, external benchmarks border.
- 2. Palm surface of the brush, brush the innervation of the skin and fingers, especially the structure of the skin and subcutaneous tissue.
- 4. The carpal canal, radius and ulna wrist channels.
- 5. The aponeurosis and fascial lodge palm, palm cellular spaces.
- 6. Synovial and osteo-fibrous sheath tendon sgibataley fingers, their structure and importance in the

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spread of inflammation to the wrist.

- 7. The wrist joint, the projection of the joint space, joint capsule, its weak points, blood supply and innervation.
- 8. The back surface of the brush, cutaneous innervation zone layers.
- 9. Bone fibrotic channels neurovascular structures dorsum of the hand.
- 10. Projections of articular slots metacarpophalangeal, interphalangeal joints and their ligaments.
- 11. Incisions with purulent inflammations brush fingers (draw a diagram).
- 13. Blockade Oberst-Lukashevich and Brown Usoltseva.
- 14. Opening of inflammatory processes of free upper limb.
- 15. Overlay Technique tendon suture.

#### Theme 5. Topography buttocks and thighs, the hip joint.

Form of activity - practical session.

<u>questions:</u>

- 1. External reference points, gluteal region border.
- 2. layers, fascia, cellular spaces, neurovascular structures gluteal region.
- 3. Communication cellular spaces gluteal region with spaces pelvis and hips.
- 4. Rear femoral region, layers, fascial bed.
- 5. The position of bone fragments at femoral fractures on the different levels.
- 6. Incisions at phlegmon buttocks and back of the thigh.
- 7. External reference points, front hip area of the border.
- 8. The topography of the muscular and vascular lacunae.
- 9. The femoral canal wall, the inner and outer ring contents.
- 10. The femoral triangle layers, a comb-iliac fossa.
- 11. The topography of neurovascular structures in the triangle skarpovskom
- 12. The obturator neurovascular bundle, obturator passage of the obturator hernia.
- 13. Leading up (Gunther) channel wall openings.
- 14. Hip joint projection of the joint space.
- 15. The articular capsule and its reinforcing apparatus, the weaknesses of the joint capsule,

blood supply and innervation.

- 16. The position of the femoral head for sprains.
- 17. The position of bone fragments in fractures of the femoral neck.

#### Topic 6. Topography of the knee, popliteal fossa, the lower leg, ankle and foot.

Form of activity - practical session.

questions:

- 1. Field of the knee, external benchmarks border.
- 2. The front area of the knee, layers, neurovascular structures, bursae.
- 1. The rear area of the knee (popliteal fossa).
- 4. The level of the popliteal artery ligation.
- 5. The knee joint, which strengthens the machine.
- 6. The joint capsule and its weaknesses. Synovial inversions and their role in the spread of burrowing pus arthritis.
- 7. Field tibia, external landmarks boundary division.
- 8. The front and lateral fascial bed shin layers
- 9. Topography neurovascular structures in the upper, middle and lower third of the leg
- 10. fascial bed back region calf muscle layers.
- 11. The drumstick-popliteal channel content.
- 12. Communication cellular spaces shin cellular spaces of the popliteal fossa and foot.
- 13. Channel Pirogov.

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- 14. The position of bone fragments at fractures of the tibia at different levels.
- 15. External reference points, the boundary of the ankle joint.
- 16. Topography tendons, synovial sheaths and the neurovascular bundle
- medial ankle area, malleolar channel
- 17. Field lateral malleolus, layers, topography tendons and vascular lesions.
- 18. Bone channels fibrous layers, the topography of the tendons and vascular lesions.
- 19. Rear area (area of the Achilles tendon), the layers sinovialnyye bags, vessels and nerves.
- 20. Capsule and firming apparatus of ankle, blood supply, innervation.
- 21. Topography of the rear area of the foot.
- 22. The projection of the transverse tarsal joint (Chopart) and predlyusnoplyusnevogo joint (Lisfranc), cutaneous innervation area.
- 23. The sole FIELD layers fascial bed.
- 24. The topography of neurovascular bundles. Cellular spaces.

#### Theme 7. Operations on the bones and joints of the limbs.

Form of activity - practical session. *questions:* 

- 1. Technology puncture the shoulder, elbow, wrist joints.
- 2. Technology puncture the hip, knee, ankle.
- 3. Technique of opening of the shoulder, elbow, wrist joints.
- 4. Technique of opening of the hip, knee, ankle.
- 5. Resection of the shoulder, elbow, wrist joints.
- 6. Resection of the hip, knee, ankle.
- 7. Operations in the limb bones at fractures and osteomyelitis.
- 8. Surgical interventions with tendon injuries.
- 9. Arthroplasty of the shoulder, elbow, hip, knee joints.
- 10. The concept of arthrodesis and arthrorisis.
- 11. Arthrodesis of the shoulder, luchezapyatsnogo, hip, knee, ankle.

#### Theme 8. Amputation and disarticulation of limbs.

Form of activity - practical session.

questions:

1. Definition of amputation and disarticulation: absolute, relative indications. Types of amputations and deadlines.

- 1. amputation of the stages and their characteristics. The intersection of the soft tissues. bone and periosteum processing. Toilet wounds.
- 2. Methods shelter amputation stump (fastsio-, myo-, osteoplastic).
- 3. Anesthesia. Indications and tourniquet technique. Special tools with amputation and its application.
- 4. Amputation and disarticulation at the wrist.
- 5. Amputation of forearm and disarticulation at the wrist joint. Operation Krukenberg Albrecht.
- 6. shoulder amputation.
- 7. Amputation and disarticulation on foot.
- 8. Amputation of the lower leg: osteoplastic of Pirogov and over.
- 9. Amputation: osteoplastic and over.
- 10. Disarticulation of the hip joint.
- **11.** Naughty stump and the reasons for its formation. Reamputatsiya.

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amputations equipment at different levels. The possibility of prosthetics.

# 9. Thread operations on vessels and nerves of the upper and lower extremities. Projection limb anatomy SORT

Form of activity - practical session.

questions:

- 1. General principles of vascular surgery. Special tools.
- 2. vascular ligation. Equipment levels and ligation in the trunk limb vessels. Toolkit.
- 3. Accessing to expose the basic people's congresses for the purpose of the final stop bleeding
- 4. Requirements and vascular suture technique for Carrel and Morozova.
- 5. General principles vessels mechanical seal. plastic vessels.
- 6. Projection lines and incisions to expose and ligation of the subclavian artery and axillary artery and Petrovsky Janelidze.
- 7. Projections subclavian, axillary, brachial, radial, ulnar arteries, superficial and deep palmar arcs.
- 8. Axillary artery ligation technique
- 9. Quick access to the subclavian, axillary, brachial, radial, ulnar artery. The interaction with the adjacent nerve projection SNP. Forbidden Zone Kanavella.
- 10. The projections of the external iliac, femoral, popliteal, and posterior tibial arteries front.
- 11. Operational accesses to external iliac, femoral, popliteal, and posterior tibial arteries front. The relationship with the adjacent nerve projection SNP.
- 12. Operations at the extremities vessels. Vascular suture. Ligation of the vessel in the wound and over.
- 13. Operations for varicose veins of the lower limb.
- 14. Operations on limb nerves. Nerve suture.
- 15. Venipuncture. Places perform venesection.

### Subject 10. Technique skills sections "of course". Pho wounds. Exposure of limbs SNP. Incisions in purulent diseases of the lower limbs. Form of activity - practical session.

#### questions:

- 1. Position incision for opening abscesses in the free upper and lower extremities.
- 2. Technique of venipuncture and venesection.
- 3. Hemostasis in the wound and is damaged during the main vascular bundle extremities. vessel suture
- 4. Principles and techniques of nerve suture.
- 5. Principles and techniques of the circular and the side seam of the vascular wall.
- 6. Technique injection (intracutaneous, subcutaneous, intramuscular, intravenous).
- 7. Technique punctures of joints.
- 8. The place of performance of opening joints.
- 9. Technique PECVD limb wounds.

# Subject 11. Topographic anatomy of the cerebral part of the head. Operations in the calvaria. Pho wounds.

Form of activity - practical session.

*questions:* 1. Bot

- Border, external benchmarks cerebral department head.
- 2. The topography of the frontal-parietal-occipital region.
- 3. Topographic anatomy of the temporal region.
- 4. Topographic anatomy of the mastoid region.
- 5. Features of the blood supply to the soft tissues of the cranial vault.
- 6. The topography of the major nerve trunks cerebral department head.

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- 7. The topography of the inner surface of the skull base.
- 8. lining of the brain, okoloobolochechnye space, venous sinuses.
- 9. Driving Krenleyna-Bryusovi, its practical significance
- 10. Localization of hematomas based on layered topography of the cerebral part of the head.
- 11. Communication extracranial and intracranial veins and their practical significance.
- 12. Instrumentation used during operations on the skull.
- 13. Primary surgical treatment of cerebral department head wounds.
- 14. Specifics of processing scalped wounds.
- 15. Machinery and osteoplastic decompressive craniotomy.
- **16.** Triangle Shipo. Antrumotomiya. complications

# **Subject 12. The topography of the facial region of the skull. Operation for facial skull section**. Pho wounds

Form of activity - practical session.

questions:

- 1. Border, external landmarks of the facial part of the head.
- 2. Topographic anatomy of the front of the face, chin area.
- 3. Topographic anatomy of the lateral area of the face: buccal, parotid-chewing.
- 4. Deep facial area, cellular spaces.
- 5. The topography of the facial and trigeminal nerve branches of the projections on the face.
- 6. Features of venous outflow face.
- 7. Requirements and machinery primary surgical treatment of facial injuries.
- 8. Incisions in phlegmon face.
- 9. Topographic and anatomic prerequisites for the unfavorable course of inflammatory processes in the parotid gland. An autopsy phlegmon.

#### Topic 13. Topographical anatomy and operative surgery of the neck.

Form of activity - practical session.

questions:

- 1. Topographic anatomy of the neck, divide by the area of the neck triangles.
- 2. Suprahyoid neck. Topography chin, submandibular, somnolence triangles.
- 3. Topography main RSs neck. The levels dividing the common carotid artery. The features of the internal and external carotid arteries in the wound.
- 4. Subhyoid neck. Lymphatic drainage.
- 5. Topography of the neck organs: larynx, trachea, pharynx, esophagus, thyroid and parathyroid gland (skeletopy, golotopiya, blood supply, innervation, lymphatic drainage).
- 6. Sternoclavicular-mastoid region, the main area of SNP.
- 7. Stair-vertebral triangle. Cervical spine thoracic duct. Subclavian artery and its branches.
- 8. Lateral neck triangle topography scapular-trapezoidal and lopatochno- clavicular triangle.
- 9. Topography of thoracic duct in the neck.
- 10. Cellular spaces of the neck, and their relationship with neighboring regions

# Subject 14. The PECVD neck wounds. Outcrop SNP neck. Operations in the organs of the neck.

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Form of activity - practical session.

<u>questions:</u>

- 1. Operational accesses to the neck and main bodies RSs neck.
- 2. Vagosympathetic blockade on Vishnevsky: indications, technique, performing signs
- 3. Blockade of the stellate ganglion of the sympathetic trunk.
- 4. Anesthesia of the brachial plexus by Kulenkampfu.

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- 5. Exposure of alcoholism and the phrenic nerve.
- 6. Exposure of the arteries in the neck (carotid, subclavian).
- 7. Tracheotomy and tracheostomy. Indications, tools, performance technique.
- 8. Intubation of the trachea, the toolkit.
- 9. Technique insertion of the cannula into the trachea (embodiment 2). Complications of tracheostomy.
- 10. Access to the cervical esophagus. Operations in the cervical esophagus.
- 11. Access to the thyroid gland by Kocher. And subtotal subfascial resection of the thyroid gland by Nikolaev.
- 12. An autopsy abscesses and abscesses of the neck. Opening and drainage of closed and open spaces of the neck.

### **Subject 15. The surgical anatomy of the chest wall, breast, pleura, lung.** Form of activity - practical session.

questions:

- 1. The boundaries of the thorax, the division into regions approximate vertical line constitutional features form.
- 2. Layered topography chest.
- 3. Topography breast, lymph.
- 4. Subpektoralnye cellular spaces.
- 5. The structure of the intercostal spaces, and their contents. Comparative characteristics of the intercostal spaces.
- 6. Topography diaphragm weaknesses.
- 7. The topography of the pleura; sinuses, their practical significance.
- 8. Topography of light: the share of segments, area.
- 9. Types of mastitis. Incisions with mastitis.
- 10. sectoral breast resection technique.
- 11. The basic principles of radical mastectomy.

#### Topic 16. Surgical anatomy of the mediastinum.

Form of activity - practical session.

questions:

- 1. The concept of "mediastinum" and its division.
- 2. Topography bodies anterior mediastinum.
- 3. Topography of the pericardium: skeleto-, Syntopy, golotopiya, sinuses, their practical significance.
- 4. Topography Heart: skeleto- and Syntopy, golotopiya. Blood supply and innervation.
- 5. The topography of major blood vessels of the anterior mediastinum: pulmonary trunk, and the ascending part of the aortic arch, the upper and lower vena cava.
- 6. The topography of the trachea and its bifurcation.
- 7. The topography of the posterior mediastinum.
- 8. The topography of the esophagus and the vagus nerve.
- 9. The topography of the descending aorta, the sympathetic trunk, thoracic duct, azygos and hemiazygos veins.
- 10. Technique puncture pericardium (safety triangle).
- 11. Surgical approaches to the heart.
- 12. Line access to the thoracic esophagus.

#### Subject 17. Operations on the thoracic cavity and mediastinum organs.

Form of activity - practical session.

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#### questions:

- 1. Puncture costophrenic sinus. Tools
- 2. Wounds of the chest: penetrating, non-penetrating.
- 3. Types of pneumothorax. Fighting pneumothorax. Closure of pneumothorax.
- 4. The valve pneumothorax, "balloting" mediastinal plevropulmonalny shock.
- 5. On-line access to the lungs.
- 6. Lateral thoracotomy. Tools for subperiosteal rib resection. performance technique.
- 7. easy suturing technique wounds. Features of the joints.
- 8. Surgical treatment of lung abscess.
- 9. Pneumonectomy: indications, technique execution.
- 10. Lobectomy, segmentectomy: indications, technique.
- 11. Acquired heart defects, the principles of their surgical treatment.
- 12. Technique suturing wounds of the heart.
- 13. Surgical treatment of cleft arterial duct.
- 14. The puncture of the pleural cavity (at hydrothorax and pneumothorax). Indications, technique.
- 15. Technique puncture sternal bone marrow harvesting. Tools.

#### Subject 18. The topography of the anterolateral abdominal wall. Weak spots.

Form of activity - practical session.

questions:

- 1. Border, external benchmarks, the projection of organs and neurovascular structures in the front wall.
- 2. Individual and age differences shapes the abdomen.
- 3. abdomen: the front side wall, abdomen, lumbar region and retroperitoneal space.
- 4. Topographic anatomy of the vagina rectus muscles, the lateral abdominal wall.

Topographic and anatomical conditions of education linea alba hernias, umbilical, inguinal.

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#### ISSUES

Topographic anatomy of the anterolateral wall of the abdomen and its weaknesses.

Determination of content and weaknesses border of the anterior abdominal wall. Suturing of tissue during plastic modeling weaknesses.

The topography of the lumbar region and retroperitoneal space. Technique of surgical interventions on the organs of the retroperitoneal space

The topography of the gate kidneys. Extraperitoneal and transperitoneal accesses to the kidneys and ureters, their comparative characteristic (laparotomic by Fedorov, Pirogov, Bergman, Israel).

Subject 19.Surgical anatomy of the inguinal, umbilical and femoral hernias. Hernia repair and plastic.

Form of activity - practical session.

#### <u>questions:</u>

- 1. Surgical anatomy of abdominal hernias: umbilical, oblique and direct inguinal, moving, birth.
- 2. Postoperative hernia.
- 3. The surgical tools and instruments.
- 4. Operation on the anterior abdominal wall hernias: inguinal, femoral, umbilical, the umbilical cord, the white line of the abdomen.
- 5. abdominal puncture (paracentesis)

6.Laparoskopiya, transumbilkalnaya portogepatografiya, splenoportography.

7. Laparotomiya, species and their comparative evaluation. Laparoscopic surgery.

#### Subject 20. Topographical anatomy of the upper abdomen.

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Form of activity - practical session.

questions:

- 1. Structure and function of the peritoneum, floors, bags, sinus canals pockets.
- 2. Clinical anatomy of the abdominal esophagus, stomach, duodenum
- 3. Clinical anatomy of the liver, gall bladder and of extrahepatic bile ducts,
- 4. Clinical anatomy of the spleen and pancreas.
- 5. Features arterial blood supply to organs and the venous outflow.

Innervation of the organ, the regional lymph nodes.

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#### ISSUES

Topographical anatomy of the upper abdominal organs. peritoneum and the course of education of the peritoneum in the upper floor

Blood supply, lymph drainage, innervation of the abdominal cavity. Possible ways of spreading the infection. Technique audit upper abdomen.

Gastric surgery: gastrotomy, suturing perforated gastric ulcer, gastroenterostomy (vperediobodochnoy) retrocolic. Gastrectomy Billroth-I. Operations on the liver: sutures parenchymatous organ.

cholecystectomy Splenectomy

The operations on the abdominal organs.

The puncture of the abdominal cavity. Intestinal suture technique. Appendectomy. Bowel resection superimposed intestinal anastomoses. Overlay unnatural anus.

The operations on the abdominal organs

Gastrotomy, suturing of perforated gastric ulcer, gastrostomy, gastrojejunostomy. Gastrectomy. Suturing wounds small intestine and colon. Bowel resection with anastomosis "end to end", "side to side", "end to side". Suture liver, splenectomy, cholecystectomy. Suturing parenchymal organ injury. Suture liver. Splenectomy

#### Theme 21. Topographic anatomy of the organs of the lower floor of the abdominal cavity. General principles of imposition of intestinal sutures. Technique perform basic operations on the small and large intestine.

Form of activity - practical session.

questions:

- **1.** The topography of the small and large intestine.
- 2. 2.Hod peritoneum in the lower floor, the connection formations peritoneum in the abdomen.
- 3. Revision of the abdominal cavity in penetrating wounds.
- 4. Theoretical bases and methods of superimposing intestinal sutures.
- 5. Resection of the small and large intestines.
- 6. Technique anastomosis "end to end", "side to side", "end to side" with and without opening.
- 7. Appendectomy,
- 8. Removing Mekkeleva diverticulum.
- 9. Fecal fistula, unnatural anus.

10. Operations at megacolon and Hirschsprung's disease

Shape holding -SAMOSTOYATELNAYA WORK

ISSUES

Topographic anatomy of the lower floor of the abdominal cavity. The course of the peritoneum and the formation of the peritoneum in the lower floor. Revision abdominal cavity for bleeding and damage the wall of the penis. Types of intestinal sutures and anastomoses of hollow organs.

Intestinal seams: Lambert, Albert Schmid, black, Pirogov-Bireh, Mateshuka, Kirpatovsky. Formation

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of anastomoses "side to side", "end to side", "end to end". colon mobilization. Resection of the small intestine. Appendectomy. Technique abdominal audit Possible ways of infection Technique perform operations on the upper abdomen organs: stomach, duodenum. Anastomoses, gut sutures

#### Theme 22. Operations on organs upper abdomen

Form of activity - practical session.

questions:

- 1. Closure of perforated gastric ulcer, gastrotomy.
- 2. Gastrostomy for strain-Kader, Witzel, Toproveru.
- 3. Formation of the front and rear gastroanastomozov.
- 4. Gastrectomy Billroth I and modification.
- 5. Gastrectomy Billroth II and modifications. biliodigestive derivations

gastroplasty

Subject 23. The operations on the abdominal organs.

Form of activity - practical session.

questions:

- 1. of the liver and biliary tract operation.
- 2. Blockade of the round ligament liver.
- 3. Suture liver injury, anatomical and atypical liver resection; the concept of surgical treatment of liver abscesses; portal hypertension.
- 4. Cholecystectomy, cholecystostomy forming anastomoses biliodigestive
- 5. The concept of a liver transplant.
- 6. Operations in the spleen. The seam of the spleen, splenectomy, spleen autotransplantation in traumatic injuries.

Operations in the pancreas. Accesses to the pancreas. The concept of operations in acute and chronic pancreatitis, cysts and abscesses.

# Subject 24.The topography of the lumbar region and retroperitoneal space. Technique of surgical interventions in the retroperitoneal space.

Form of activity - practical session.

questions:

- **1.** Projection organs and large vessels retroperitoneum to the skin of the abdominal wall and the anterior lumbar region.
- 2. Medial and lateral sections, layers and their characterization, blood vessels, nerves. Weaknesses, cellular spaces.
- **3.** Regional lymph nodes.
- 4. Clinical anatomy of the kidneys, adrenal glands and ureters.
- **5.** Topographic anatomy of the abdominal aorta, inferior vena cava, a steam room and hemiazygos veins.
- **6.** Formation of the thoracic duct.
- 7. Surgical instruments and equipment.
- 8. Perirenal blockade on Vishnevsky.
- 9. Seam kidney, partial nephrectomy, nephropexy, pielotomiya, nephrectomy.
- **10.** The concept of renal transplantation.
- **11.** Suture ureter, plastic surgery for defects ureters.

Autopsy of inflammatory foci lumbar region and retroperitoneum.

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#### Subject 25. The operations on the abdominal organs and retroperitoneum.

Form of activity - practical session.

questions:

- 1. Individual, Gender and age features of the structure of the pelvis and pelvic wall.
- 2nd floor of a small basin. The course of the peritoneum in the male and female pelvis.
- 3. The fascia and cellular tissue of the pelvis area
- 4. Urinary and anal triangles: layers and their characteristics, neurovascular structures and cellular spaces.
- 5. External genitals of men.
- 6. The external genital organs of women.
- 7. The crotch portion of the rectum, especially arterial blood supply and venous drainage

8. Regional lymph nodes.

#### Subject 26. Topographic anatomy of the pelvis and perineum. Pelvic surgery and perineum.

Form of activity - practical session.

questions:

one.Surgical instruments and equipment.

- 2.Novokainovaya blockade of the spermatic cord and the round ligament of the uterus.
- 3. pudendal nerve blockade, blockade of intrapelvic Shkolnikov-Selivanov-Tsodyksu.
- 4. Operations in the bladder: Puncture bladder cystotomy, cystostomy, suturing the wound bladder.
- 5.Ponyatie a plastic bladder.
- 6.Operatsii on the prostate gland about the adenoma and prostate cancer.
- 7. culdocentesis, vaginotomy.
- 8. Operation when broken ectopic pregnancy.
- 9. surgery for hemorrhoids, rectal prolapse.
- 10.Operatsii at undescended testis; hydrocele and spermatic cord, with phimosis and paraofimoze.
- 11.Ponyatie on transactions with male and female infertility.
- 12. Upward and downward drainage of the parietal pelvic abscesses

#### Shape holding -SAMOSTOYATELNAYA WORK

#### ISSUES

Topographic anatomy and operative surgery of the pelvis and perineum.

Operations on the internal genital organs of women and men. Colostomy in the colon. Drainage of cavity walls and pelvis cellular spaces

#### Subject 27. Operative surgery and topographic anatomy of the spine.

Shape holding -SAMOSTOYATELNAYA WORK

**ISSUES** 

Departments, external benchmarks.

The spine and the spinal canal.

Individual and age differences of the spine and spinal cord.

Spinal cord membranes, nerve roots. Skeletopy spinal segments.

Blood supply, venous drainage.

Anatomical and physiological study of surgical interventions.

Surgical instruments and equipment. A lumbar puncture.

Laminectomy. Surgical methods for spinal fixation in fractures.

Reconstructive and stabilizing spinal surgery.

Operations at anomalies of the spine, spinal hernia.

#### 7. LABORATORY CLASSES

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This type of work is not provided Curriculum (NC).

#### 8. SUBJECTS OF COURSE PAPERS, TESTS, ESSAYS

This type of work is not provided Curriculum (NC).

#### 9.PERECHEN questions for an exam

1. Subject and methods for the study of topographic anatomy. Basic concepts of topographic anatomy: the region and its borders; external and internal benchmarks; projection of neurovascular structures and bodies; fascia cellular spaces.

2. The role of domestic scientists in the development of topographic anatomy and operative surgery: Pirogov, P.I.Dyakonov, N.I.Napalkov, V.N.Shevkunenko, A.N.Maksimenkov, V.V.Kovanov C .I.Spasokukotsky, Vishnevsky, N.I.Burdenko.

3. General principles of transplantation of organs and tissues.

4. Topography fronto-parietal-occipital region. Features of the blood supply to the covers of the cranial vault. Technique primary surgical treatment of wounds of the cranial vault.

5. Topography sinuses of the dura mater. The veins of the cranial vault and persons, their connection with intracranial veins and venous sinuses of the dura mater. The value in the spread of purulent infection.

6. Topography of the temporal region. Scheme craniocerebral topography. The projection of the middle meningeal artery. And osteoplastic decompressive craniotomy.

7. Topography mastoid region. Trepanation of the mastoid process. Possible complications.

8. Topography of parotid-masticatory area. The spread of purulent zatokov with mumps. Operations in acute purulent parotitis.

9. Topography buccal area. Features of venous outflow area of the face - venous anastomoses, their importance in the spread of purulent infection.

10. Topography of surface formations side face area. Features of venous outflow area of the face - venous anastomoses, their importance in the spread of purulent infection. Direction surgical incisions on the face.

11. The topography of the deep areas of the face. Fascia and cellular spaces. The spread of purulent zatokov face. Intervention in purulent processes in the face.

12. Area of sternocleidomastoid muscle. Topography of the cervical plexus. Vagosympathetic blockade on Vishnevsky.

13. Topography suprahyoid area. Submental and submandibular

triangles. Submandibular gland. Autopsy submandibular cellulitis.

14. Topography of the submental and submandibular triangle. autopsy submandibular cellulitis.

15. Topography sleepy triangle of the neck. Reflex neck area. An autopsy phlegmon vaginal fascial primary neurovascular bundle. Form A Stranitsa

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16. Topography sternoclavicular-mastoid region. Vagosympathetic blockade on Vishnevsky.

17. The fascia and cellular tissue of the neck area. Autopsy submandibular cellulitis.

18. Fascia and neck kletchatochnyh space. Autopsy retropharyngeal cellulitis.

Classification of the fascia of the neck by Shevkunenko. Closed or open space of the neck ..

19. The fascia and cellular tissue of the neck area. Autopsy phlegmon fascial sheath main neurovascular bundle.

20. Topography of the larynx and cervical trachea. The upper and lower tracheostomy. Konikotomiya.

21. Topography of the pharynx and cervical esophagus. Autopsy pozadipischevodnoy cellulitis. Online access to the cervical esophagus.

22. Topography of the lateral triangle of the neck. Predlestnichnaya and interscalene gap. On-line access to the organs of the neck.

23. Topography staircase-vertebral triangle. Quick access to the common carotid artery in the scapular-tracheal and sleepy triangles.

24. The Topography thoracic duct and neck lymph nodes. Access to the common carotid artery in the sleepy triangle.

25. Topography of thoracic duct and lymph nodes in the neck. Autopsy previstseralnoy cellulitis neck.

26. Topography of the thyroid and parathyroid glands. Subtotal subcapsular strumectomy of Nikolaev.

27. Tracheostomy and its species. Possible complications arising from incorrect operation is performed.

28. The topography of the breast. Lymph path. Operations in purulent mastitis.

29. The topography of the breast. Lymph path. Sectoral resection and radical mastectomy.

30. Topography intercostal spaces. Primary surgical treatment of penetrating wounds of the chest wall. ribs subperiosteal resection

31. Topography of the diaphragm. Weaknesses of the diaphragm. Topographic-anatomic substantiation of education diaphragmatic hernias.

32. Topography of the pleura and lung. Segmental structure of the lungs. Online access to the organs of the chest cavity. Puncture and thoracostomy.

33. Topography of the pleura and lung. Segmental structure of the lungs. Puncture and thoracostomy.

34. The topography of the mediastinum. Vessels, nerves and nerve plexus posterior mediastinum.

Surgical approaches to the anterior and posterior mediastinum.

35. Topography vessels, nerves and nerve plexus of the mediastinum. Reflex zones.

36. Topography of the heart and pericardium. Topography of the thoracic aorta. Pericardiocentesis.

37. Topography of thoracic trachea, bifurcation of the trachea and main bronchi. The lymph nodes of the chest cavity. Online access to the organs of the chest cavity.

38. Topography of the thoracic esophagus and vagus nerves. Line access to the thoracic esophagus.

39. Topography thoracic duct lymph nodes of the thoracic cavity. Puncture and drainage of the pleural cavity.

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40. Fascia cellular spaces and mediastinum. The spread of purulent zatokov. Surgical approaches to the posterior mediastinum organs.

41. The topography of the anterolateral abdominal wall. Surgical approaches to the organs of the abdominal cavity.

42. Topography of the anterolateral abdominal wall. Topographic-anatomic substantiation of formation of umbilical hernia. Operations when umbilical hernias.

43. Topography of the inguinal canal. Topographic-anatomic substantiation of the emergence of acquired oblique inguinal hernia. Plastic inguinal canal of Girard-Spasokukotsky the weld Kimbarovskogo modification.

44. Topography of the inguinal canal. Topographic-anatomic substantiation of occurrence of direct inguinal hernia. Sliding hernia. Plastic inguinal canal by Bassini.

45. The topography of the inguinal canal. Topographic-anatomic substantiation of formation of congenital inguinal hernia. Features of treatment of hernia sac in congenital inguinal hernia.

46. The topography of the femoral canal, femoral hernia. Femoral and inguinal methods operations in

femoral hernias.

47. The peritoneal cavity. Division by floors. Subdiaphragmatic space. Predzheludochnaya and stuffing bags. On-line access to the cavity omental.

48. The peritoneal cavity. Division by floors. The topography of the pancreas. Quick access to the pancreas.

49. Topography of the liver, its segmental structure. Hepatoduodenal bunch. Methods for stopping bleeding in liver damage. Liver suturing wounds.

50. The topography of the gallbladder, biliary tract and hepatoduodenal ligament. Quick access to the gallbladder. Operations: cholecystendysis, cholecystectomy, choledochotomy.

51. Topography of the abdominal portion of the esophagus and stomach. Closure of perforated gastric ulcer.

52. Topography of the abdominal portion of the esophagus and stomach. Types gastrojejunostomy. A vicious circle and the reasons for its formation.

53. Topography of the abdominal portion of the esophagus and stomach. Gastrectomy Billroth-I,

Billroth-II to modify the Hofmeister-Finsterer.

54. Topography of duodenum and the duodenal-jejunal flexure. processing methods duodenal stump with gastrectomy.

55. Topography of the spleen. Splenectomy.

56. Topography of the packing bags. Gland hole. On-line access to the cavity omental.

57. Topography of the packing bags. The topography of the pancreas. Quick access to the pancreas.

58. Topography of the small intestine. Rule Gubarev. small intestine revision method.

59. Topography of the small intestine. Mesenteric sinuses (sinus). Revision of the abdominal cavity. resection technique of the small intestine and the imposition of intestinal anastomosis means the "end-

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to-end" and "side-to-side."

60. Topography of the cecum and the appendix. Surgical approaches and appendectomy technique.

61. Topography of the colon. Colostomy. Operation overlay unnatural anus by the method Maidla.

62. Topography of the small and large intestines. Technique audit abdominal cavity for bleeding and damage the hollow body. Intestinal seams, general requirements for the imposition of intestinal sutures. Closure of penetrating wounds of the small intestine.

63. Topography of kidneys, the fixing apparatus kidneys. Decapsulation. Nephropexy.

64. Topography of the lumbar region. Weak spots. Fascia and cellular tissue formation retroperitoneal space. Perirenal blockade, possible complications.

65. Topography of kidneys, ureters and adrenal glands. Surgical approaches to the kidneys and ureters.66. Topography of the abdominal aorta and inferior vena cava. Nerve plexus, lymph nodes,

retroperitoneal space. Surgical approaches to the kidneys and ureters.

67. Progress in the peritoneum male and female pelvis. Drainage vesico-rectal and utero-rectal recesses.

68. Topography of female pelvic peritoneal department. Drainage of the utero-rectal cavity. The puncture of the abdominal cavity through the posterior vaginal fornix.

69. Topography of female pelvic peritoneal department. The topography of the uterus with appendages. Surgery for an ectopic pregnancy.

70. Topography of the bladder. Predpuzyrnoe retrovesical and cellular spaces. Puncture of the bladder.

71. The topography of the bladder, urethra, prostate, vas deferens. Operations in wounds of the bladder. Methods drainage predpuzyrnogo cellular spaces.

72. fascial-cellular spaces of a small basin. The spread of purulent zatokov. Blockade of the lumbar and sacral plexus of Shkolnikov-Selivanov.

73. Topography of the rectum. Pozadipryamokishechnoe cellular spaces. The spread of purulent zatokov. Surgery for injuries of the rectum.

74. Topography scapular region. Arterial anastomoses and development of collateral circulation in the axillary artery occlusion.

75. Topography of the subclavian area. Subclavian and axillary lymph nodes. Opening and drainage subpektoralnoy cellulitis.

76. Topography and the deltoid region of the shoulder joint. Puncture of the shoulder joint.

77. Topography of the shoulder joint. Puncture and arthrotomy of the shoulder joint.

78. The topography of the axilla. Online access to the neurovascular bundle. Exposure of the axillary artery.

79. The topography of the anterior-medial shoulder area. Amputation of the shoulder to the middle third of the level.

80. The topography of the back shoulder region. The doctrine of the amputation. Classification of amputations Term: primary, secondary and repeat (reamputatsiya). Amputation of the shoulder in the

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middle third.

81. Topography of the rear area of the elbow. The elbow joint. Puncture and arthrotomy of elbow joint.

82. The topography of the anterior region of the forearm. Exposure of the radial artery in the lower

third of the forearm. Fascial-cellular spaces Pirogov. The spread of purulent infection.

83. The topography of the anterior region of the forearm. Online access to the ulnar neurovascular bundle.

84. Topography of the median bed of palm. Autopsy subgaleal cellulitis median lodge palm on the war-Yasenetsky.

85. Topography of the median bed of palm. Operations during intraosseous and subungual panaritiums.

86. Topography of the median bed of palm. Operations in purulent tenosynovitis II, III and IV fingers.

87. Topography lateral bed palm. Operations in purulent tenosynovitis I finger.

88. Topography of the gluteal region. The spread of purulent zatokov podfastsialnogo cellular spaces of the gluteal region. Autopsy podfastsialnoy cellulitis gluteal region.

89. The topography of the femoral triangle. Exposure of the femoral artery and femoral vein below the inguinal ligament.

90. Topography of blood vessels and nerves of the femoral triangle. Exposure of the femoral artery in the femoral triangle.

91. Topography of the obturator canal. The spread of purulent zatokov fastsialno- kletchatochnyh formations. Drainage cellular spaces of the pelvic Buyalsky-McWhorter.

92. Topography of the medial thigh bed. Leading channel. The seam of the vessel Karrelyu-Morozova.

93. The topography of the sciatic nerve in the gluteal region and the rear region of the thigh. Exposure of the sciatic nerve in the gluteal region.

94. Topography of the knee joint. Osteoplastic amputation Gritti-Shimanovsky. Principles of formation of the supporting stump.

95. Topography of the popliteal fossa. The development of collateral circulation in the popliteal artery occlusion. The seam of the vessel by Carrel-Morozova.

96. Topography of the popliteal fossa. The development of collateral circulation in the popliteal artery occlusion. Cone-circular amputation Pirogov.

97. The topography of the front region of the tibia.

98. Classification of limb amputations in the form of soft tissue dissection. Fastsioplasticheskaya amputation of the lower leg.

99. The rear region of the tibia topography. Goleno-popliteal channel. Osteoplastic amputation of the lower leg of Pirogov.

100. Topography of the front area of the ankle and rear foot. Exposure of dorsal artery of foot.

101. Field of the medial malleolus. The medial malleolar channel. Purulent zatokov propagation path

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of the medial malleolar channel.

102. Topography of the area of the sole. Heel and plantar channels. Autopsy subgaleal cellulitis soles on the war-Yasenetsky.

#### **10. Self study TRAINEES**

Content requirements, conditions and procedures for the organization of independent work of students, taking into account forms of training are determined in accordance with the "Regulation on the organization of independent work of students," approved by the Scientific Council of USU (Minutes  $N_{28} / 268$  from 26.03.2019g.).

Full-time form of education				
Name sections and topics	Type of individual work (study of educational	Volum e in	form of control	
	material, problem solving,		(Check problem	
		hours	solving, essay,	
	essay, report, control work, preparation for taking tests,		etc.).	
	exams, etc.).			
	exams, etc.).			
Theme 1.Methods of study of	elaboration of educational	1	oral	
topographic anatomy. Total surgical	material toadavernom		check at interview	
technique.	material			
1				
Theme 8. Amputation and	elaboration of educational	3	oral	
disarticulation of limbs.	material toadavernom		check at interview	
	material			
Subject 18. Topography anterolateral	elaboration of educational	8	oral	
abdominal wall. Weak spots.	material toadavernom		check at interview	
	material			
Subject 19. Surgical anatomy of the	elaboration of educational	8	oral	
inguinal, umbilical and femoral	material toadavernom	Ũ	check at interview	
hernias. Hernia repair and plastic.	material		check at thict view	
normus. Horma repuir and plastic.	material			
Subject 20. Topographical anatomy	elaboration of educational	8	abstract check	
of the upper abdominal organs	<i>material</i> to <i>adavernom</i>			
	material			
Theme 21. Topographic anatomy of	elaboration of educational	8	abstract check	
the organs of the lower floor of the	<i>material</i> to <i>adavernom</i>			
abdominal cavity. General principles	material			
of imposition of intestinal sutures.				
Technique perform basic operations				
on the small and large intestine.				
Theme 22.Operations on organs		8	abstract check	
upper abdomen		0	1 1 1	
Subject 23. The operations on the		8	abstract check	
abdominal organs.		8	1	
Subject 24. The topography of the	elaboration of educational	0	oral	
lumbar region and retroperitoneal	material toadavernom		check at interview	
space. Technique of surgical	material			

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interventions on the organs of the retroperitoneal space		
Subject 25. The operations on the abdominal organs and retroperitoneum	elaboration of educational material toadavernom material	abstract check
Subject 26 Topographic anatomy of the pelvis and perineum. Pelvic surgery and perineum.	elaboration of educational material toadavernom material	abstract check
Subject 27. Operative surgery and topographic anatomy of the spine.	elaboration of educational material toadavernom material	oral check at interview
in total	elaboration of educational material toadavernom material	oral check at interview

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#### 11. TRAINING methodical and information Maintenance

Disciplines	Topographic anatomy and surgical surgery by direction
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#### Топографическаяанатомияиоперативнаяхирургия

#### a) List of recommended literature

#### Main literature

1Nikolaev, A. V. Topographic Anatomy and Operative Surgery : textbook / A. V. Nikolaev. - M.: GEOTAR-Media, 2021. - 672 p. - 672 c. - ISBN 978-5-9704-6095-5. - Текст :электронный //ЭБС"Консультантстудента":[сайт].-URL:https://www.studentlibrary.ru/book/ISBN9785970460955.html

<u>2</u> Гостищев, В. К. General surgery / The manual. - М. : GEOTAR-Media, 2019. - 220 р. - 220 с. - ISBN 978-5-9704-4984-4. - Текст :электронный // ЭБС "Консультантстудента" : [сайт]. - URL : https://www.studentlibrary.ru/book/ISBN9785970449844.html

#### Additional literature

3Dydykin, S. S. Topographic Anatomy and Operative Surgery. Workbook. In 2 parts. Part II / Edited by S. S. Dydykin. - Москва :ГЭОТАР-Медиа, 2022. - 120 с. - ISBN 978-5-9704-6452-6. - Текст :электронный // ЭБС "Консультантстудента" : [сайт]. - URL : https://www.studentlibrary.ru/book/ISBN9785970464526.html

4Dydykin, S. S. Topographic Anatomy and Operative Surgery. Workbook. In 2 parts. Part I / Edited by S. S. Dydykin. - Москва :ГЭОТАР-Медиа, 2022. - 120 с. - ISBN 978-5-9704-6451-9. - Текст :электронный // ЭБС "Консультантстудента" : [сайт]. - URL : https://www.studentlibrary.ru/book/ISBN9785970464519.html

5 Topographic and clinical anatomy of the human body : the teaching aid for foreign students / I. I. Kagan, S. N. Lyashchenko, A. O. Mironchev - Москва : ГЭОТАР-Медиа, . - ISBN 978-5-9704-6560-8. - Текст :электронный // ЭБС "Консультантстудента" : [сайт]. - URL : https://www.studentlibrary.ru/book/ISBN9785970465608.html

6 Методическиерекомендациипоосвоениюпрактическихнавыковиуменийстудентами iii – iv курсовпотопографическойанатомиииоперативнойхирургии = Guideline for the development of practical skills of students, iii – iv courses, in topographic anatomy and operative surgery / С. А. Зурнаджан, И. В. Гречухин, А. С. Айрапетов, О. В. Мусатов. - Астрахань :АстраханскийГМУ, 2017. - 40 с. - ISBN 9785442403275. - Текст :электронный // ЭБС "Букап" : [сайт]. - URL : <u>https://www.books-up.ru/ru/book/metodicheskie-rekomendacii-poosvoeniyu-prakticheskih-navykov-i-umenij-studentami-iii-iv-kursov-po-topograficheskojanatomii-i-operativnoj-hirurgii-11254677/</u>

#### Educational literature

#### 1 Smolkina A. V.

Methodical instructions for organization of independent work for the disciplin «Topographic anatomy and operative surgery» for specialty 31.05.01 «Medical business» and 31.05.02 «Pediatrics» / A. V. Smolkina, GnoevikhVitaly V.; Ulyanovsk State University. - Ulyanovsk :UlSU, 2022. - 34 p. - Неопубликованный ресурс; Наангл. яз. - URL:

http://lib.ulsu.ru/MegaPro/Download/MObject/13006 . - Режимдоступа: ЭБСУлГУ. - Текст :электронный.

#### 2Smolkina A. V.

Methodical instructions for organization of practical exercise on the discipline «Topographic

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anatomy and operative surgery» for specialty 31.05.01 «Medical business» and 31.05.02 «Pediatrics» / A. V. Smolkina, GnoevikhVitaly V.; Ulyanovsk State University. - Ulyanovsk :UISU, 2022. - 51 p. - Неопубликованныйресурс; Наангл. яз. - URL: <u>http://lib.ulsu.ru/MegaPro/Download/MObject/13005</u>. - Режимдоступа: ЭБСУлГУ. - Текст :электронный.

AGREED:

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**b) Software:** 

SPS Consultant Plus, NEL RF,

The electronic library system IPRBooks,

AILS "Megapro",

System "Antiplagiat.HIGHER EDUCATIONAL»,

Microsoft Windows,

Microsoft Office 2016,

«My Office Is Standard»,

Automated information system "Vitakor RMIS»,

Academic Basic Statistica for Windows 13

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#### в) Профессиональные базы данных, информационно-справочные системы 1. Электронно-библиотечные системы:

1.1. Цифровой образовательный ресурс IPRsmart : электронно-библиотечная система : сайт / ООО Компания «Ай Пи Ар Медиа». - Саратов, [2023]. – URL: <u>http://www.iprbookshop.ru</u>. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.2. Образовательная платформа ЮРАЙТ : образовательный ресурс, электронная библиотека : сайт / ООО Электронное издательство «ЮРАЙТ». – Москва, [2023]. - URL: https://urait.ru. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.3. База данных «Электронная библиотека технического ВУЗа (ЭБС «Консультант студента») : электронно-библиотечная система : сайт / ООО «Политехресурс». – Москва, [2023]. – URL: <u>https://www.studentlibrary.ru/cgi-bin/mb4x</u>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.4. Консультант врача. Электронная медицинская библиотека : база данных : сайт / ООО «Высшая школа организации и управления здравоохранением-Комплексный медицинский консалтинг». – Москва, [2023]. – URL: <u>https://www.rosmedlib.ru</u>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.5. Большая медицинская библиотека : электронно-библиотечная система : сайт / ООО «Букап». – Томск, [2023]. – URL: <u>https://www.books-up.ru/ru/library/</u>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.6. ЭБС Лань : электронно-библиотечная система : сайт / ООО ЭБС «Лань». – Санкт-Петербург, [2023]. – URL: <u>https://e.lanbook.com</u>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.7. ЭБС **Znanium.com :** электронно-библиотечная система : сайт / ООО «Знаниум». - Москва, [2023]. - URL: <u>http://znanium.com</u>. – Режим доступа : для зарегистрир. пользователей. - Текст : электронный.

**2. КонсультантПлюс** [Электронный ресурс]: справочная правовая система. / ООО «Консультант Плюс» - Электрон. дан. - Москва : КонсультантПлюс, [2023].

### 3. Базы данных периодических изданий:

3.1. eLIBRARY.RU: научная электронная библиотека : сайт / ООО «Научная Электронная Библиотека». – Москва, [2023]. – URL: <u>http://elibrary.ru</u>. – Режим доступа : для авториз. пользователей. – Текст : электронный

3.2. Электронная библиотека «Издательского дома «Гребенников» (Grebinnikon) : электронная библиотека / ООО ИД «Гребенников». – Москва, [2023]. – URL: <u>https://id2.action-media.ru/Personal/Products</u>. – Режим доступа : для авториз. пользователей. – Текст : электронный.

**4.** Федеральная государственная информационная система «Национальная электронная библиотека» : электронная библиотека : сайт / ФГБУ РГБ. – Москва, [2023]. – URL: <u>https://нэб.рф</u>. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

5. <u>Российское образование</u> : федеральный портал / учредитель ФГАУ «ФИЦТО». – URL: http://www.edu.ru. – Текст : электронный.

**6.** Электронная библиотечная система УлГУ : модуль «Электронная библиотека» АБИС Мега-ПРО / ООО «Дата Экспресс». – URL: <u>http://lib.ulsu.ru/MegaPro/Web</u>. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

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лолжности сотрудника УИТиТ	Ф.ИО.		Подпись	Дата

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#### 12. LOGISTICS DISCIPLINE

#### - For practical classes.

1 ... № 8-1. The audience for practical training, monitoring and intermediate certification, group and individual counseling. The room is staffed mannequins for pleural puncture, puncture of joints, to provide resuscitation and admission Geynliha with airway foreign body. There is an extended set of simulation wounds.

There 3D- anatomical atlas.

(432017, Ulyanovsk region, Ulyanovsk, Leninsky district, street. Architect Livchaka d. 2/1)

2 ... №11-1. The audience for seminars and workshops, monitoring and intermediate certification, group and individual counseling. The room is staffed by student board and a set of furniture (seats -15). Stand "will expeditiously" - 1 piece, 3-D anatomical atlas, Full skeleton, mannequins: puncture of the pleural cavity, the simulator for knitting units

(432017, Ulyanovsk region, Ulyanovsk, Leninsky district, street. Architect Livchaka d. 2/1)

- For lectures.

1 ... № 4. Assembly Hall. Auditorium for lectures, seminars and workshops, monitoring and intermediate certification, group and individual counseling. The room is staffed by student board and a set of furniture (seats - 372). Set of multimedia equipment: a computer with Internet access, screen, projector. Wi-Fi access to the network "Internet", EIOS, DEC.

(432048, Ulyanovsk region, Ulyanovsk, rn Rail, str. University Embankment, d. 1, Bldg. 6 (casing 4)

certification, group and individual counseling. The room is staffed by student board and a set of furniture (seats - 200). Set of multimedia equipment: a computer with Internet access, screen, projector. Wi-Fi access to the network "Internet", EIOS, DEC.

(432017, Ulyanovsk region., Ulyanovsk, st. Sviyaga embankment, d. 106 (2 building)

3 .... No209. Auditorium for lectures, seminars and workshops, monitoring and intermediate certification, group and individual counseling. The room is staffed by student board and a set of furniture (seats - 187). Set of portable multimedia equipment: laptop, multimedia projector, screen, speakers kolonki.Wi-Fi access to the Internet, EIOS, EBS

(432017, Ulyanovsk region, Ulyanovsk, Leninsky district, street. Architect Livchaka d. 2/1)

#### - For self-study.

1 ... ...№ 22. Service Department of the Institute of Medicine, Ecology and Physical Culture Scientific Library of the zone for independent work, Wi-Fi access to EIOS, DEC. The audience is equipped with specialized furniture to 42 seats and equipped with computers with access to the network "Internet", EIOS, EBS.Ploschad 96.6 sq.m.

(432017, Ulyanovsk region., Ulyanovsk, st. Sviyaga embankment, d. 106 (2 building)

2 ....number 237 reading room, a research library with an area for self-study, Wi-Fi access to EIOS, DEC. The audience is equipped with specialized furniture for 80 seats and is equipped with computers with access to the network "Internet", EIOS, EBS, screen and projector. Area 220.39 sq.m.432017, Ulyanovsk region., Ulyanovsk, st. Embankment Sviyagi, d. 106 (1 case)

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3 ... ..№11-2. The audience for seminars and workshops, monitoring and intermediate certification, group and individual counseling. The room is staffed by student board and a set of furniture (seats - 15). Stand "will expeditiously" - 1 piece, 3-D anatomical atlas, Full skeleton, mannequins: puncture of the pleural cavity, the simulator for knitting knots.

(432017, Ulyanovsk region, Ulyanovsk, Leninsky district, street. Architect Livchaka d. 2/1)

### 13. SPECIAL CONDITIONS FOR STUDENTS WITH DISABILITIES

Training students with disabilities is carried out taking into account the peculiarities of psychophysical development, individual capabilities and health of such students. Education of students with disabilities can be organized in conjunction with other students, and separately. If necessary, students from among persons with disabilities (at the request of the student) may be offered one of the following options for the perception of information, taking into account their individual psychophysical characteristics:

- psychophysical characteristics.
  17. for persons with visual impairment: in printed form in large print; in the form of an electronic document; in the form of an audio file (translation of educational materials into audio format); in printed form in Braille; individual consultations with the involvement of a special translator; individual tasks and consultations.
- 18. for persons with hearing impairment: in printed form; in the form of an electronic document;
  18. for persons with hearing impairment: in printed form; in the form of an electronic document;
  video materials with subtitles; individual consultations with the assistance of a sign language interpreter; individual tasks and consultations.
- interpreter; individual tasks and consultations.
  19. for persons with musculoskeletal disorders: in printed form; in the form of an electronic document; in the form of an audio file; individual tasks and consultations."

document; in the form of an audio file, individual table and constitute technologies in the 20. if it is necessary to use partially or exclusively remote educational technologies in the educational process, the organization of work of teaching staff with students with disabilities is provided in an electronic information and educational environment, taking into account their individual psychological characteristics

Developer: Associate Professor, Department of General and Operative Surgery with Topographic Anatomy and Dentistry course Ph.D., Associate Professor Vitaliy Gnoevoy

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#### LIST OF CHANGES №

### Speciality 31.05.01. «General medicine»

Disciplines	Topographic anatomy and surgical surgery
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№	Content of the change or a link to the attached text of the	Full name of the head of the Department developing the discipline	Signature	Date
1	Introduction of changes to item C) Professional databases, information and reference systems item 11 "Educational, methodological and information support of the discipline" with the design of Appendix 1	A.V. Smolkina	dly	26.06.2024
2	Introduction of changes to item A) Recommended Literature item 11 "Educational, methodological and information support of the discipline" with the design of Appendix 2	A.V. Smolkina	Ally-	26.06.2024

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Appendix 1

### a) List of recommended literature

Main literature

1Nikolaev, A. V. Topographic Anatomy and Operative Surgery : textbook / A. V. Nikolaev. - M. :GEOTAR-Media, 2021. - 672 p. - 672 c. - ISBN 978-5-9704-6095-5. - Текст : электронный // ЭБС"Консультантстудента" : [сайт]. - URL :https://www.studentlibrary.ru/book/ISBN9785970460955.html

<u>2</u> Гостищев, В. К. General surgery / The manual. - М. : GEOTAR-Media, 2019. - 220 р. - 220 с. - ISBN 978-5-9704-4984-4. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <u>https://www.studentlibrary.ru/book/ISBN9785970449844.html</u>

#### Additional literature

3 Dydykin, S. S. Topographic Anatomy and Operative Surgery. Workbook. In 2 parts. Part II / Edited by S. S. Dydykin. - Москва : ГЭОТАР-Медиа, 2022. - 120 с. - ISBN 978-5-9704-6452-6. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : https://www.studentlibrary.ru/book/ISBN9785970464526.html

4 Dydykin, S. S. Topographic Anatomy and Operative Surgery. Workbook. In 2 parts. Part I / Edited by S. S. Dydykin. - Москва : ГЭОТАР-Медиа, 2022. - 120 с. - ISBN 978-5-9704-6451-9. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : https://www.studentlibrary.ru/book/ISBN9785970464519.html

5 Topographic and clinical anatomy of the human body : the teaching aid for foreign students / I. I. Kagan, S. N. Lyashchenko, A. O. Mironchev - Москва : ГЭОТАР-Медиа, . - ISBN 978-5-9704-6560-8. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : https://www.studentlibrary.ru/book/ISBN9785970465608.html

6 Методические рекомендации по освоению практических навыков и умений студентами iii – iv курсов по топографической анатомии и оперативной хирургии = Guideline for the development of practical skills of students, iii – iv courses, in topographic anatomy and operative surgery / С. А. Зурнаджан, И. В. Гречухин, А. С. Айрапетов, О. В. Мусатов. - Астрахань : Астраханский ГМУ, 2017. - 40 с. - ISBN 9785442403275. - Текст : электронный // ЭБС "Букап" : [сайт]. - URL : https://www.books-up.ru/ru/book/metodicheskie-rekomendacii-po-osvoeniyu-prakticheskih-navykov-i-umenij-studentami-iii-iv-kursov-po-topograficheskoj-anatomii-i-operativnoj-hirurgii-11254677/

#### **Educational literature**

#### 1 Smolkina A. V.

Methodical instructions for organization of independent work for the disciplin «Topographic anatomy and operative surgery» for specialty 31.05.01 «Medical business» and 31.05.02 «Pediatrics» / A. V. Smolkina, Gnoevikh Vitaly V.; Ulyanovsk State University. - Ulyanovsk : UlSU, 2022. - 34 p. - Неопубликованный ресурс; На англ. яз. - URL:

<u>http://lib.ulsu.ru/MegaPro/Download/MObject/13006</u>. - Режим доступа: ЭБС УлГУ. - Текст : электронный.

#### 2 Smolkina A. V.

Methodical instructions for organization of practical exercise on the discipline «Topographic anatomy and operative surgery» for specialty 31.05.01 «Medical business» and 31.05.02 «Pediatrics» / A. V. Smolkina, Gnoevikh Vitaly V.; Ulyanovsk State University. - Ulyanovsk : UlSU, 2022. - 51 p. - Неопубликованный ресурс; На англ. яз. - URL:

<u>http://lib.ulsu.ru/MegaPro/Download/MObject/13005</u>. - Режим доступа: ЭБС УлГУ. - Текст : электронный.

AGREED:

Leading specialist / Stadolnikova D.R.

Signature

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Appendix 2

Профессиональные базы данных, информационно-справочные системы

#### 1. Электронно-библиотечные системы:

1.1. Цифровой образовательный pecypc IPRsmart : электронно-библиотечная система : сайт / ООО Компания «Ай Пи Ар Медиа». - Саратов, [2024]. – URL: http://www.iprbookshop.ru. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.2. Образовательная платформа ЮРАЙТ : образовательный ресурс, электронная библиотека : сайт / ООО Электронное издательство «ЮРАЙТ». – Москва, [2024]. - URL: <u>https://urait.ru</u>. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.3. База данных «Электронная библиотека технического ВУЗа (ЭБС «Консультант студента») : электронно-библиотечная система : сайт / ООО «Политехресурс». – Москва, [2024]. – URL: <u>https://www.studentlibrary.ru/cgi-bin/mb4x</u>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.4. Консультант врача. Электронная медицинская библиотека : база данных : сайт / ООО «Высшая школа организации и управления здравоохранением-Комплексный медицинский консалтинг». – Москва, [2024]. – URL: <u>https://www.rosmedlib.ru</u>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.5. Большая медицинская библиотека : электронно-библиотечная система : сайт / ООО «Букап». – Томск, [2024]. – URL: <u>https://www.books-up.ru/ru/library/</u>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.6. ЭБС Лань : электронно-библиотечная система : сайт / ООО ЭБС «Лань». – Санкт-Петербург, [2024]. – URL: https://e.lanbook.com. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.7. ЭБС Znanium.com : электронно-библиотечная система : сайт / ООО «Знаниум». - Москва, [2024]. - URL: <u>http://znanium.com</u>. – Режим доступа : для зарегистрир. пользователей. - Текст : электронный.

**2.** КонсультантПлюс [Электронный ресурс]: справочная правовая система. / ООО «Консультант Плюс» - Электрон. дан. - Москва : КонсультантПлюс, [2024].

**3.** eLIBRARY.RU: научная электронная библиотека : сайт / ООО «Научная Электронная Библиотека». – Москва, [2024]. – URL: http://elibrary.ru. – Режим доступа : для авториз. пользователей. – Текст : электронный

**4.** Федеральная государственная информационная система «Национальная электронная библиотека» : электронная библиотека : сайт / ФГБУ РГБ. – Москва, [2024]. – URL: https://нэб.рф. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

**5.** Российское образование : федеральный портал / учредитель ФГАУ «ФИЦТО». – URL: http://www.edu.ru. – Текст : электронный.

**6.** Электронная библиотечная система УлГУ : модуль «Электронная библиотека» АБИС Мега-ПРО / ООО «Дата Экспресс». – URL: http://lib.ulsu.ru/MegaPro/Web. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

Инженер ведущий

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Щуренко Ю.В. 2024

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