

**Thematic plan of seminar-type classes
on the subject "Topographic anatomy and operative surgery"
for students of 2024 admission
under the educational program
31.02.01 General Medicine,
(specialty),
full-time education
for the 2026-2027 academic year**

№	Thematic blocks (TB)	Practical training in TB	Hours (academic)
4 семестр			
1.	Introduction to the discipline. Methods of study. Surgical operation. Separation and connection of tissues. Surgical instruments, their purpose, rules of use. Surgical knots and sutures. Stopping bleeding in a wound (temporary and final). Types of surgical sutures. Indications for application. Types of suture material. Needles. Ligation. Ligation with stitching.	III	4
2.	Skin plastic surgery. Terminology: autogenous, allogeneic, xenogeneic skin plastic surgery, donor, recipient, immune conflict, rejection reaction. Classification of methods: free and non-free CP, split and full-thickness skin flap, local and distant tissues. Methods of Reverden, Thiersch, Lawson-Krause, Dregsted-Wilson, Dzhanelidze, Limberg, relaxing incisions, Indian, Italian, Sklifasovsky, round Filatov stem.		4
3.	TA of the gluteal region: boundaries, layers, composition and projection of the vascular-nerve bundles on the skin of the region, cellular space and ways of dissemination of abscesses, surgical incisions for their drainage. Surgical approaches to the gluteal arteries, features of their ligation. Sciatic nerve block	III	4
4.	TA of the hip joint, posterior region of the thigh and popliteal fossa: borders, anatomical layers. Cellulose, routes of pus spread in phlegmon. Topography of the popliteal vascular-nerve bundle, surgical approaches to the popliteal artery of the Joberian fossa. Arterial collateral network of the knee joint. Projection of the sciatic nerve on the skin of the area. Puncture of the hip joint. Dysplasia of the hip joint in newborns.		4
5.	TA of the anterior thigh. Femoral triangle, its boundaries, contents, significance in surgery. Projection line of the femoral artery (Ken's line). Dangerous and safe ligation level. Patient's position on the operating table during ligation of the femoral artery. Femoral canal: significance in medicine, deep and superficial ring. Plastic surgery of femoral hernias. Adductor and obturator canal: walls, openings, contents. Cross-section of the thigh at the level of its middle third.		4
6.	TA of the knee joint: bones forming it, type of structure, ligamentous apparatus, features of the synovial membrane, puncture points. TA of the lower leg: borders, muscular-fascial sheaths, vascular-nerve bundles, their composition and projection onto the skin of the area. The tibial-popliteal canal: walls, openings. Transverse cut of the lower leg at the level of its middle third. Pathological positions of the foot in		4

	injuries of the nerves of the lower leg. Surgical approaches to the vascular-nerve bundles.		
7.	TA of the foot. Ankle joint area and malleolar canal. Anatomical sections of the foot. Bones and arches of the foot. Vascular-nerve bundles, their projection on the skin of the area. Cross-section of the foot at the level of the middle of the metatarsal bones. Standard levels of amputation and exarticulation on the foot. Transverse tarsal joint (Chopard). Tarsometatarsal joint (Lisfranc). Delorme incisions for phlegmon of the foot. Blood supply and innervation of the foot.		4
8.	Amputations and exarticulations of limbs. Definition. Classification of amputations by time of execution, method of covering the bone stump, method of moments, skin incision. Method of calculating skin flaps, processing muscles, bones, periosteum, nerve trunks. Skin-fascial amputation of the thigh according to Pirogov. Amputation of the thigh according to Gritti-Szymanowski-Albrecht. Fascioplactic and osteoplastic amputation of the lower leg according to Pirogov. A set of surgical instruments used in amputations.		4
9.	TA of the shoulder girdle. Topography of the shoulder girdle: scapular region, deltoid, subclavian. Borders, layers, muscular-fascial sheaths. Vessels and nerves. Pathways of pus spread through the tissue. Scapular arterial collateral circle. Opening of phlegmon of the scapular and subdeltoid region.		4
10.	TA of the axillary region: borders, walls of the axillary fossa. Three-sided and four-sided openings. Axillary vascular-nerve bundle, projection of the axillary artery on the skin. Structure of the brachial plexus. Axillary lymph nodes. Spread of pus from the axillary fossa. Surgical access to the axillary artery, its ligation, restoration of collateral blood flow. Phlegmon of the axillary fossa.		4
11.	TA of the shoulder and shoulder joint. External landmarks, structural features. Topographic and anatomical substantiation of shoulder dislocations. Shoulder topography: borders, muscular-fascial sheaths. Brachial vascular-nerve bundle. Projection of the brachial artery. Topography of the median, radial, ulnar nerves. Puncture of the shoulder joint. Transverse cut of the shoulder in the middle third. Amputation of the shoulder using a two-flap cutaneous-fascial method.		4
12.	TA of the forearm and elbow joint. Structural features, external landmarks. Topography of the cubital fossa: boundaries, vascular-nerve bundles. Puncture of the elbow joint. Topography of the posterior forearm. Topography of the anterior forearm. Borders, muscular-fascial sheaths, muscle layers. Vascular-nerve bundles, their projection onto the skin. Topography of the Pirogov-Paron cellular space. Transverse cut of the forearm in the middle third. Forearm amputation with a circular skin cuff. Surgical incisions for phlegmon of the Pirogov-Paron cellular space. Forearm amputation using a conical-circular cuff.		4

13.	TA of the wrist and hand. Anatomical sections of the hand. Dorsum of the hand. Palm of the hand. External landmarks and projections of vessels and nerves of the palm. Musculofascial sheaths, their contents. X-ray of the hand to determine bone age. Carpal tunnel. TA substantiation of carpal tunnel syndrome. TA of the synovial sheaths of the tendons of the hand. Localization of phlegmon of the hand and surgical incisions for them. Paths of spread of pus to the hand. Topography of the finger. Topography of various types of panaritiums. Anatomical classification of panaritiums. Surgical incisions for panaritiums. Amputations and exarticulations of the phalanges of the fingers.		4
14	Vascular suture technique (principles, special instruments, thrombosis prevention). A. Carrel's method, modification of Morozova, Polyantsev, Solovyov. Mechanical vascular suture. Seamless vessel connection. Vascular surgeries for aneurysms. Plastic surgery of blood vessels. Surgeries for varicose veins. Technique of surgical interventions according to Babcock, Madelung, Norath. Suture and plastic surgery of tendons. Principles of operations on peripheral nerves: neurolysis, nerve suture, neurotomy, plastic surgery and nerve relocation.		4
5 семестр			
16	TA of the brain region of the head. Areas: fronto-parieto-occipital, temporal, mammillary process area (borders, layers, blood supply, innervation, lymph drainage). Meninges, intermeningeal spaces. Circulation of cerebrospinal fluid. Sinuses of the dura mater, their connections with the superficial veins. Localization of intracranial hematomas. Kronlein-Bryusova scheme. Features of the structure of the bones of the cranial vault. Primary surgical treatment of wounds in the skull area. Stopping bleeding from superficial vessels, sinuses of the dura mater, bones, middle meningeal artery, trepanation of the mammillary process, topography of the Shipo triangle.		4
17	TA of the brain part of the head. Internal base of the skull: cranial fossae, openings, their contents (nerves and vessels). Typical lines of fractures of the base of the skull, topographic and anatomical substantiation of the main symptoms. Topographic anatomy of the facial part of the head. Topography and function of the trigeminal, facial nerves. Cranial trepanation: decompressive and osteoplastic.		4
18	TA of the facial part of the head. Areas: buccal, parotid-masticatory and deep (borders, vessels and nerves, cellular spaces). Features of arterial and venous blood supply of the face. Connections of facial veins with sinuses of the dura mater. Spread of purulent processes. Pshoaling of facial wounds. Lamellar suture.		4
19	TA of the neck. Triangles of the neck. Fascia of the neck. Cellular spaces. Lymph nodes. Peculiarities of purulent processes in the neck. Topography of the submandibular and carotid triangles, medial vascular-nerve bundle, cervical plexus, cervical sympathetic trunk. Prescalene and interscalene cellular spaces. Surgical approaches to the carotid arteries, ligation of the external carotid artery, ways of restoring collateral blood flow.		4
20	TA of the neck organs. Topography of the pharynx, esophagus, larynx, trachea, thyroid and parathyroid glands, recurrent laryngeal nerve, cervical part of the GLP. Upper and lower tracheostomy. Technique of		4

	performing subtotal, subfascial resection of the thyroid gland. Operation of drainage of the GLP. Surgical access to the cervical part of the esophagus. Cervical vagosympathetic block according to Vishnevsky. Primary surgical treatment of neck wounds. Typical incisions for abscesses and phlegmons of the neck. Puncture and catheterization of the subclavian vein.		
21	Thoracic thoracic surgery. Topography of the intercostal space. Topography of the mammary gland. Topography of the diaphragm. Surgical operations for mastitis. Sectoral resection of the mammary gland. Radical mastectomy according to Holstedt. Puncture of the pleural cavity. Primary surgical treatment of chest wall wounds. Thoracotomy for access to the organs of the chest cavity. The concept of diaphragmatic hernias and methods of treatment. Primary surgical treatment of chest wounds with open pneumothorax.		4
22	Fundamentals of cardiopulmonary resuscitation. Definition of clinical, biological, social death, Topographical anatomical substantiation of CPR principles. Stages. CPR technique. Indications. Evaluation criteria. Typical errors.	III	4
23	Thoracic TA. Topography of the mediastinum and its sections. Mediastinal vessels. Pericardium structure. Rationale and technique of pericardial puncture according to Larrey. Heart topography, blood supply, innervation. Heart suture. Surgical treatment of coronary heart disease. Topography of the posterior mediastinal organs. Surgical anatomy of the lungs. Division of the lung into lobes, segments. Concept of pneumonectomy, lobectomy.		4
24	Operative surgery and topographic anatomy of the anterolateral abdominal wall. Division into regions. Projection of the white line of the abdomen, sheath of the rectus abdominis muscles, umbilical ring. Places where external abdominal hernias may occur; topography of the inguinal canal. The process of testicle descent into the scrotum, features of congenital inguinal hernia. Topography of the inguinal canal in direct and oblique hernias. Sliding inguinal hernia. Operations for inguinal hernias. Plastic surgery of the anterior wall of the inguinal canal according to Girard-Spasokukotsky, Kimbarovsky, Postempsky. Plastic surgery of the posterior wall of the inguinal canal according to Bassini. Operations for umbilical hernias (according to Lexer, Mayo, Sapezhko), for hernias of the white line of the abdomen, laparotomy, surgical approaches to the abdominal organs.		4
25	TA of the peritoneum: floors, sacs, canals, sinuses, their clinical significance. Laparotomy. Revision of the abdominal organs in case of injuries and inflammatory processes. Topography of the stomach: holotopy, skeletotopy, syntopy, ligaments, blood supply, innervation, lymph drainage. Stomach surgeries: suturing of a perforated ulcer. Gastrostomy according to Witzel, Stamm-Senn-Kader, Toprover. Gastric resection according to Bilioth-1 and Bilioth-2. Vagotomy (stem, selective, proximal). Pyloroplasty. Gastrectomy.		4

26	TA of the abdominal cavity. Surgical anatomy of the liver, extrahepatic bile ducts, gallbladder, pancreas, duodenum, spleen (holotopy, skeletotopy, syntopy, innervation, lymph drainage, ligamentous apparatus). Liver suture. Liver resection. Cholecystectomy (from the neck to the bottom). Surgery for portal hypertension. Tanner and Paciora operations. Suturing of the veins of the esophagus and cardia. Cholecystostomy. Choledochotomy. Biliodigestive anastomoses. Splenectomy. Pancreatoduodenal resection. Thoracolaparotomy		4
27	TA of the abdominal cavity. Topography of the jejunum, ileum and colon, intestinal sutures, application technique. Types of intestinal anastomoses. Resection of the small intestine. Appendectomy. Application of an artificial anus. Hemicolectomy. Hartmann's operation. Topography of the mesenteric part of the small intestine. Topography of the large intestine (cecum, appendix, ascending, transverse colon, descending, sigmoid). Holotopy, syntopy, blood supply, innervation, lymph drainage. Drainage of the abdominal cavity.		4
28	TA of the lumbar region TA of the retroperitoneal space. Cellular spaces, approaches to them. Organs, vessels and nerves of the retroperitoneal space.		4
29	Pelvis. Borders, walls, muscles. Cellular spaces. Floors of the pelvis.		4
30	Pelvic organs: bladder, uterus, rectum, prostate gland. Operations on them.		4
31	Application of intestinal sutures on dummies.	III	4
32	Performing a tendon suture on biomaterial	III	4

Considered at a meeting of the Department for Operative Surgery and Topographic Anatomy, on 25 of June, 2026, protocol №10

The Head of Department



A.A. Vorobiev