МИНИСТЕРСТВО НАУКИ, ВЫСШЕГО ОБРАЗОВАНИЯ И ИННОВАЦИИ КЫРГЫЗСКОЙ РЕСПУБЛИКИ
ОШСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ
МЕЖДУНАРОДНЫЙ МЕДИЦИНСКИЙ ФАКУЛЬТЕТ
КАФЕДРА АНАТОМИИ, ГИСТОЛОГИИ И НОРМАЛЬНОЙ ФИЗИОЛОГИИ

ПРОГРАММА ОБУЧЕНИЯ

(Syllabus)

on the discipline: "Topographic anatomy and operative surgery"
for full-time students studying on the specialty "560001-General Medicine (GM)"

Специальность (направление)	Лечебное дело (GM)	*Код курса*	
Язык обучения	английский	*Дисциплина*	ОХТА
Академический год	2025-2026г.	*Количество кредитов*	4 кредита
Преподаватели	Джолдубаев С.Дж. Нуруев М. К. Бакиров С.Б.	*Семестр*	3-семестр
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Консультации (время/ауд)		*Места (здание/ауд.)*	Морфологический корпус
Форма обучения (дневная/заочная/вечерняя/дистантная)	дневная	*Тип курса: (обязательный/ элективный)*	обязательный

Ош, 2025

1. The purpose of the discipline: Formation of knowledge of clinical, anatomical and surgical training of students, necessary for continuing education at clinical departments and further professional activity.

2. Learning outcomes (LO) and student competencies formed in the course of studying the discipline **"Topographic anatomy and operative surgery"**. In the process of mastering the discipline, the student will achieve the following learning outcomes **(LO)** and will have the appropriate competencies:

LO BEP code and its wording	Competencies BEP	LO discipline code (LOd) and its wording
LO₁ – Able to use basic knowledge of humanities, natural sciences, economics in professional work	**BK-1** - able to analyze socially significant problems and processes, to use in practice the methods of the humanities, natural sciences, biomedical and clinical sciences in various types of professional and social activities;	**Knows and understands:** • methods of human body research; **Can:** • dissect the human body; • use basic knowledge in the analysis and description of the dissected human body;
LO₅ – Able to assess morphofunctional, physiological conditions and pathological processes and apply research methods of sick adults and children to solve professional problems	**PK-4** - able to apply methods of asepsis and antiseptics, use medical instruments, master the technique of caring for sick adults and children;	**Knows and understands:** • primary surgical treatment of wounds; safety regulations and work in physical, chemical, biological laboratories, with reagents, devices, animals; • apply methods of asepsis and antiseptics, master the technique of caring for sick adults and children; **Can:** • use general and some special surgical instruments;
LO₇ – Is able to apply basic knowledge in the field of diagnostic activity to solve professional tasks	**ПК-11** – capable and ready to make a diagnosis based on the results of biochemical and clinical studies, taking into account the course of pathology in organs, systems and the body as a whole; **ПК-12** - able to analyze the patterns of functioning of individual organs and systems, use knowledge of anatomical and physiological features, basic methods of clinical and laboratory examination and assessment of the functional state of the body of an adult and children, for timely diagnosis of diseases and pathological processes;	**Knows and understands:** • the general principle of the layered structure of the human body; • topographic anatomy of specific areas and internal organs; • indications, techniques for performing simple emergency surgical interventions; • surgical instruments; **Can:** • palpate the main bone landmarks on a person, outline the topographic contours of organs and the main vascular and nerve trunks; • perform separate surgical techniques and operations on biological (educational) material; • layer-by-layer separation of soft tissues, tying knots, layer-by-layer suturing of wounds, removal of skin sutures;

In the course of mastering the discipline, the student must achieve the following **learning outcomes:**

Course Prerequisites

"At the entrance", in accordance with the curriculum, the study of topographic anatomy is carried out in the third semester. Basic knowledge required to study the discipline

formed by:

- ✓ In the humanitarian cycle: Latin;
- ✓ In the cycle of natural-scientific, biomedical disciplines: biology; normal and clinical anatomy, histology, embryology, cytology; normal and pathological physiology.

Course post requisites

"At the exit", the foundation is laid for students to study propaedeutics of clinical disciplines and the formation of skills to apply knowledge of human anatomy in the process of further study of all clinical disciplines and in future professional activities. Based on the requests and requirements of the clinical - internal diseases, surgical diseases, obstetrics and gynecology, etc., as well as medical and preventive disciplines, in the teaching of topographic anatomy special attention is paid to applied aspects.

Technological map of discipline

Name of disciplines Total hours	Name of disciplines Total hours	Name of disciplines Total hours	Name of disciplines Total hours	1 Module				2 Module				Final control
				Aud. hours				Aud. hours				
				lecture	Practice	SW	Control	Lecture	Practical	SW	Control	
	120	48	72	16	16	36	2	4	12	36	2	
Points:				30	30	30	30	30	30	30	30	
Total modules				30				30				**Total modules 60**

3. Thematic plan for the distribution of hours by occupation

4. CALENDAR AND THEMATIC PLAN OF LECTURES

OSTA for students in the specialty "GENERAL MEDICINE (GM) »

(3rd semester, 2025-2026 academic year)

№	LECTURE TOPICS	number of hours
1.	Subject and tasks of topographic anatomy and operative surgery. Surgical instruments. Types of sutures.	2 hours
2.	Topographic anatomy and operative surgery of the upper limb	2 hours
3.	Topographic anatomy and operative surgery of the lower limb. Basic principles of amputation and disarticulation	2 hours
4.	Topographic anatomy and operative surgery of the head and facial cerebral.	2 hours
5.	Topographic anatomy and operative neck surgery.	2 hours
6.	Topographic anatomy and operative surgery of the chest and mediastinum.	2 hours
7.	Topographic anatomy and operative surgery of the anterior-lateral abdominal wall.	2 hours
8.	Topographic anatomy and operative surgery of the organs of abdominal cavity.	2 hours
9.	Topographic anatomy and operative surgery of the lumbar region and retroperitoneal space.	2 hours
10.	Topographic anatomy and operative surgery of the pelvic and perineal organs	2 hours
	TOTAL	20 hours

CALENDAR AND THEMATIC PLAN OF PRACTICAL CLASSES

OSTA for students in the specialty "GENERAL MEDICINE (GM)" (3rd semester, 2025-2026 academic year)

№	NAME OF THE TOPIC	number of hours
1.	Objective and tasks of OSTA. Methods of studying the subject. Classification of surgical operations. Groups of surgical instruments. Technique of suturing.	2 hours
2.	OSTA of the upper-arm, shoulder and elbow regions. Operations: amputation, disarticulation, exposure of vessels and nerves, joint punctures. Technique of repositioning dislocations. https://www.youtube.com/shorts/u9EovscX4NU	2 hours
3.	OSTA of the forearm and hand. Operations: amputation, disarticulation, exposure of vessels and nerves, joint punctures. Technique of repositioning dislocations. https://www.youtube.com/watch?v=Ye839B3YoMaY	2 hours
4.	OSTA of the gluteal region, thigh and knee joints. Operations: amputation, disarticulation, exposure of vessels and nerves, joint punctures. Technique of repositioning dislocations of the hip. https://www.youtube.com/watch?v=VIWh8f9B3uZY	2 hours
5.	OSTA of the leg and foot. Operations: amputation, disarticulation, exposure of vessels and nerves, joint punctures. https://www.youtube.com/watch?v=C1bUbPqH9r0	2 hours
6.	OSTA cerebral sections of the head. Boundaries, layers topography, innervations, blood supply. Scheme of Cranlein-Brusov. https://www.youtube.com/shorts/XNIIuacYL80	2 hours
7.	OSTA facial sections of the head. Boundaries, layers topography, innervations, blood supply. Rhinoplasty. https://www.youtube.com/watch?v=Z4URhu28iFc	2 hours
8.	OSTA of the neck. Operations: tracheostomy, thyroidectomy endoprosthesis, spondylosis. Technique of vagosympathetic blockade, opening of abscesses and phlegmon. https://www.youtube.com/watch?v=cF1GnlQXfCE	2 hours
9.	**Module № 1**	
10.	Topographic anatomy of the organs of the thorax and thoracic cavity. Boundaries, layers topography, innervations, blood supply. Surgical operations on the organs of the thorax and thoracic cavity. Thoracotomy, lobectomy, pneumonectomy. https://www.youtube.com/watch?v=4IMenyA74ds	2 hours
11.	OSTA of the anterolateral wall of the abdomen. Weaknesses of the abdomen. Herniotomy. Operations for malformations of the anterior abdominal wall and umbilicus (hernias, fistulas, diverticula, hydrocele). Methods and accesses of plastic surgery for inguinal, femoral and umbilical hernia. https://www.youtube.com/watch?v=GbDm7Em1Wuc	2 hours
12.	Topographic anatomy of abdominal organs. Boundaries. Derivatives of the peritoneum. The course of the peritoneum. Pouches, pockets. https://www.youtube.com/watch?v=XgYPFJbtOkA	2 hours
13.	Topographic anatomy of the lumbar region and retroperitoneum. Boundaries, layers topography. Surgical operations on the organs of the lumbar region and retroperitoneum. Nephrectomy. Adrenalectomies. Kidney transplantation. https://www.youtube.com/watch?v=Ri0XSYRet00	2 hours
14.	OSTA of the pelvis and perineal organs. Boundaries, innervation, blood supply. Cystotomy, Adenomectomy. Varicocele, ectopia and testicular hydrocele. The course of Caesarean section. Hysterectomy. https://www.youtube.com/watch?v=N9FtjP5L-zc	2 hours
15.	Operative surgery and topographic anatomy of the vertebral column and spinal cord. Technique of lumbar puncture. Hemilaminectomy. https://www.youtube.com/shorts/nbYZ91wQV-8	2 hours
	Module №2	
	TOTAL	**28 hours**

4. Educational and methodological support of the discipline

I. Technical training aids:

The use of sectional (training) halls, museums, a bone room and a preparation room to familiarize students with natural (corpses and cadaveric material) and artificial materials. Tables, models, anatomical tools.

Multimedia complex (laptop, projector, screen), TV, video camera, slideoscope, VCR, ideo and DVD players, monitors, multimedia presentations, tables. Sets of slides for various sections of the discipline. A set of tables for various sections of the discipline. Situational tasks, videos. Boards.

II.Training and information materials

Main literature:

1.Frank H. Netter, MD: Atlas of human anatomy 4th edition 2006
2. B. D Chaurasia Human anatomy upper limb and thorax, volume 1 2004
3. Tsyhykalo_o_v_topographical_anatomy_and_operative_surgery
4. Fominykh_t_a_ed_verchenko_i_a_topographic_anato

Additional literature:

1. B. D Chaurasia Human anatomy lower limb abdomen and pelvic, volume 2 2004
2. B. D Chaurasia Human anatomy head and neck, volume 3 2004

5. Evaluation Information

Assessment of students' knowledge is carried out according to a 100 point system as follows:

Rating (point)	Letter system	GPA digital equivalent	Traditional system
87 - 100	A	4.0	Fine
74 - 86	B	3.33	Good
	C		
61 - 73	D	2.33	Satisfactorily
	E	2.0	
31-60	Fx	0	Unsatisfactory
0-30	F	0	Traditional system

6. Scoring Policy

In accordance with the points accumulation card, a student can receive points for all types of classes. In lectures for active participation in the analysis of the topic of the lecture, in practical classes for active participation in the analysis of the topic of the lesson, for abstracts, drawing, etc. CPC for the preparation of schemes, tables, presentations. For foreign control - a maximum of 30 points, for the final control - a maximum of 40 points;

7. Course policy

The educational process is organized on the basis of a credit-modular system in accordance with the requirements of the Bologna process using a modular-rating system for assessing student performance using the AVN information system.

Students are presented with the following systems of requirements and rules of conduct in the classroom:

1. Obligatory attendance of classes;
2. Activity during classes;
3.Preparation for classes, homework and IWS;
4. Appearance for self-training;

Invalid:

- Delay and departure from classes
- Use of cell phones during class
- Deception and plagiarism
- Untimely delivery of tasks

The credit-modular system for organizing the educational process is based on the systematic work of students during the entire academic year. Types of training in human anatomy in accordance with the curriculum are:

1. Lectures;
2. Practical classes;
3. Independent work of students;
4. Individual work of choice

The topics of the lecture course reveal the problematic issues of the corresponding sections of human anatomy.

Practical exercises include mastery of:

- knowledge of Latin terminology;
- knowledge of the sources and patterns of embryonic development, the structure of organs and systems of human organs, clinical methods for their study (X-ray method, computed tomography, magnetic resonance imaging (MRI), ultrasound (ultrasound), endoscopy, etc.);
- skills of preparation, demonstration of anatomical formations on natural preparations, models, imitations;
- assessment of age, gender and individual characteristics of the structure of human organs;
- solving situational problems that have clinical anatomical justification.

Independent work involves the mastery of the ability:

- anthropometric (macroscopic) description of organs;
- to demonstrate organs, their parts and other formations on preparations;
- draw diagrams and drawings on the material of the topic;
- interpret the visualized results of clinical research methods (read radiographs, MRI, ultrasound, etc.);

Individual educational research (UIRS) or research (NIRS) student work (optional) involves:

- preparation of a review of scientific literature (abstract);
- preparation of illustrative material on the topics addressed (presentation, set of tables, diagrams and figures, etc.);
- participation in olympiads, etc.

Mastering the topic is monitored in practical exercises in accordance with specific goals. It is recommended to use the following forms of current control of students' training level:

- written (computer) testing in the amount of control work;
- ticket responses and situational tasks;
- control of practical skills of preparation and demonstration of anatomical preparations, followed by analysis and assessment of the structural features of human organs;
- analysis of topographic and anatomical relationships of human organs and systems (knowledge of the basics of clinical anatomy);

The final control of the assimilation of modules is carried out at their completion and includes:

- computer or written test control according to the volume of tests and situational tasks of control works;
- an oral interview on anatomical preparations (control of practical skills)

8. LIST OF QUESTIONS AND TASKS ON TOPICS AND FORMS OF CONTROL (current, milestone, final).

General issues

1. Individual and typological characteristics of the size of the human spine
2. Clinical anthropology and physical status of a person
3. Integrated characteristics of organ topography
4. Extreme forms of individual variability of vessels and nerves
5. N.I. Pirogov and his role in the development of topographic anatomy and operative surgery
6. The main directions of development of topographic anatomy
7. The Applied Importance of Fascia and Interfascial Cellular Spaces
8. Ways to spread purulent processes
9. Relief anatomy and determining the position of an object on the surface of the body

Topographic anatomy and operative surgery of the limbs

10. External landmarks and projections of the main vessels and nerves of the upper limb
11. Topography and operative surgery of the main neurovascular bundles of the shoulder
12. Topographic anatomy and operative surgery of the axillary and scapular regions
13. Topographic anatomy and operative surgery of the subclavian and deltoid regions
14. Topography and operative surgery of the ulnar region and elbow joint
15. Topography and operative surgery of the main neurovascular bundles of the forearm and hand
16. External landmarks and projections of the main vessels and nerves of the lower limb
17. Surgical anatomy of a dislocation of the hip joint
18. Operational access to the vascular bundles of the limb
19. Topographic anatomy and operative surgery of the gluteal region
20. Topographic anatomy and operative surgery of the popliteal fossa and knee joint
21. Topographic anatomy and operative surgery of the lower leg
22. Topographic anatomy and operative surgery of the foot and ankle

Topographic anatomy and head surgery

23. Topography and operative surgery of the brain
24. Intracranial topography. Krenlein-Bryusova scheme.
25. Extreme types of human skull base form.
26. The brain part of the head. Features of the topography of the soft parts of the head.
27. Subarachnoid space, ventricles of the brain, tanks
28. Topographic anatomy and operative surgery of the facial section of the head
29. Topographic anatomy and operative surgery of the cranial vault
30. Topographic and anatomical relations of the structures of the temporomandibular joint
31. Surgical anatomy and operative surgery of the soft palate with congenital clefts of the upper lip and palate

Topographic anatomy and surgical neck surgery

32. Cellular spaces of the neck.
33. Topographic anatomy and operative surgery of the anterior neck
34. Topography of the neurovascular bundles of the neck
35. Topography of the fascia of the neck
36. Triangles of the neck their practical meaning
37. Topography of the thyroid and parathyroid glands.
38. Surgical anatomy of the neck in the scapular-tracheal triangle

Topographic anatomy and operative surgery of the chest and chest organs

39. Variant anatomy of the thymus
40. Layers of the chest wall topography of the intercostal space
41. Topographic anatomy of the esophagus
42. Topographic anatomy of the diaphragm
43. Topographic anatomy and operative surgery of the lung
44. Topographic anatomy of the anterior mediastinum
45. Topographic anatomy of the posterior mediastinum
46. Topography and operative surgery of the pleura, pleural sinuses
47. Topographic and anatomical justification of surgical access to the organs of the chest cavity
48. Surgical anatomy of the mammary gland

Topographic anatomy and surgical abdominal surgery

49. Femoral hernia and groin anatomy
50. Options the structure of the anterior abdominal wall
51. Hepatoligament complex
52. Oblique inguinal hernia and its anatomy in men
53. Methods of revision of hollow organs

54. Hepatic bag. The concept of segmental structure of the liver
55. Malformations of the abdominal wall and organs of the abdominal cavity
56. Segmental structure of the liver and "anatomical" resection.
57. The structure of small and large human omentums
58. Human sphincter apparatus
59. Topographic anatomy of the duodenum and pancreas
60. Topographic anatomy and operative surgery of the stomach
61. Topographic anatomy and operative surgery of the liver and gall bladder
62. Topographic anatomy and operative surgery of the spleen
63. Topographic anatomy and operative surgery of the small intestine
64. Topography of the peritoneum: bags, ligaments, sinuses, pockets, channels of the abdominal cavity
65. Topography and mechanism of formation of hernias of the white line of the abdomen and umbilical ring
66. Topography of the inguinal canal. Surgical anatomy of an inguinal hernia
67. Topography of the anterolateral wall of the abdomen
68. Topography of the colon flexures of its blood supply
69. Topography of the appendix, options for its location
70. Surgical anatomy of femoral hernias.
71. Surgical anatomy of sliding hernias. Features of operations on them.
72. Surgical anatomy of the elements of the hepatoduodenal ligament of the liver

Topographic anatomy and operative surgery of the lumbar region and retroperitoneal space

73. Genitourinary malformations
74. Topographic anatomy and operative surgery of retroperitoneal organs
75. Topographic anatomy and operative surgery of the lumbar region
76. Topography and operative surgery of the kidneys, adrenal glands and ureters
77. Topography of paired and unpaired branches of the abdominal aorta
78. Fasces and fiber layers of the retroperitoneal space

Topographic anatomy and pelvic surgery

79. Cellular spaces of the pelvis
80. Pelvic cavity
81. Topographic anatomy and operative surgery of the pelvic
82. Topography of the female perineum, its innervation. Methods of blockade of the reproductive nerves
83. Topography and operative surgery of the uterus and appendages
84. Topography and operative surgery of the bladder and urethra
85. Topography and operative surgery of the rectum

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