



**APPROVED
EMD decision**

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Protocol No. 5

Chairman of the EMC Vice Rector,
candidate of pedagogical sciences,
associate professor Apezova D.U.



SYLLABUS by discipline

B.3.4.5. OPERATIVE SURGERY

For students of the educational program, higher professional education in the specialty 560001 "General Medicine" (5-year education) in the specialty "Doctor"

Type of study work	Total hours
course	3
Semester	6
Number of weeks	18
Credits	4
The total complexity of the discipline	120
Classroom/practical studies (PS)	72
Student Independent Work (SIW)	48
Forms of control	
current control	Testing, oral questioning, written test
Frontier control	Testing
Midterm	Testing
Final control	exam
Semester rating by discipline:	Point-rating system

Information about the teacher of the academic discipline

Full Name	Baigazakov Asylbek Topchubekovich
Post	teacher
Academic degree	Doctor of medical sciences
Academic title	docent
Email address	
Location of the department (address)	KR, Bishkek, st. Shabdan Baatyr 128, floor 2
Telephone	0777264xxx
Consultation hours	11.00-13.30

Characteristics of the academic discipline

The purpose of studying the discipline. The objectives of mastering operative surgery is the acquisition by each student of specific topographic and anatomical knowledge necessary to substantiate the diagnosis, understanding the pathogenesis of the disease, possible complications, mechanisms of development, compensatory processes, as well as the choice of the most rational methods of surgical treatment. Unlike normal anatomy, topographic anatomy and operative surgery consider the layered structure of the human body by regions in the totality of all formations, starting with the skin and ending with the deepest in their morphological and functional unity. The study of the basic academic discipline "Operative Surgery" consists in the anatomical and surgical training of students necessary for subsequent classes at clinical

departments and in independent medical activity. When mastering the course, students develop the ability to apply the acquired knowledge of operative surgery to substantiate the diagnosis, explain the features of the course of pathological processes, solve diagnostic and surgical tasks, master elementary surgical actions and some standard surgical techniques. To master the discipline, the main task is to provide special theoretical knowledge and practical skills to medical university students on major surgical diseases, prepare them to make tactical decisions in outpatient settings in patients with urgent and planned surgical pathology. Mastering the necessary level of knowledge in the main areas of surgical discipline. Mastering the etiology, pathogenesis, clinical signs, treatment and prevention of surgical diseases by students. Acquisition of the proper amount of practical skills and abilities that allow providing medical and diagnostic assistance at the outpatient stage in the most common surgical pathology. Mastering the issues of the organization of surgical care, the basics of sanitary and epidemiological regime, measures for prevention and rehabilitation after private diseases and complications in surgery, as well as maintaining medical records, including accounting and reporting. At the end of the course, students know the criteria for the diagnosis of major surgical diseases of the abdominal and thoracic cavities, lesions of the main vessels; methods of treatment of surgical diseases and indications for their use. Students are proficient in interpreting the results of laboratory, instrumental diagnostic methods (for major surgical diseases), can apply the algorithm of making a preliminary diagnosis with subsequent referral of the patient to the appropriate specialist doctor, basic medical diagnostic and therapeutic measures for first aid in urgent and life-threatening conditions associated with pathology of the thoracic cavity (hydrothorax, pneumothorax).

Prerequisites of the discipline:

- Latin
- Biology with elements of ecology
- Chemistry
- General and clinical biochemistry
- Normal anatomy
- Histology, Embryology, cytology
- Normal physiology
- Microbiology, Virology and Immunology
- Basic pharmacology
- Pathological physiology
- Propedotherapy
- Propedsurgery
- Radiation diagnostics and therapy

Postrequisites of the discipline:

- Occupational diseases
- Hospital therapy
- Fundamentals of clinical examinations in internal diseases
- Outpatient therapy
- Fundamentals of clinical examinations in pediatrics
- Anesthesiology, intensive care, emergency conditions
- Oncology

Learning outcomes of the discipline according to the RO GPP

The study of the discipline of microbiology, virology and immunology will contribute to the achievement of learning outcomes (RE) GEP:

RE-8 - Interpret, analyze and evaluate data from clinical, laboratory and instrumental diagnostic methods, make a treatment plan, including emergency care, taking into account urgent and priority signs of the disease.

The achievement of RE-8 is realized by the acquisition of competencies by the graduate, i.e. his ability to apply knowledge, skills and personal qualities in accordance with the tasks of professional activity - PC-16, PC-17

Within the framework of this discipline, it is expected to achieve the following results of teaching the discipline, which are implemented within the framework of achieving competencies:

PC - 16 - is capable and ready to use the algorithm of diagnosis (main, concomitant, complications) taking into account the ICD, perform basic diagnostic measures to identify urgent and life-threatening conditions.

PC - 17 - is capable and ready to perform basic therapeutic measures for the most common diseases and conditions in adults and children in outpatient and hospital settings.

Content of the discipline

№.№	Name of topics
1.	Section 1. Topographic anatomy and operative surgery. Topographic anatomy and operative surgery of the upper and lower extremities
2.	Subject and tasks, methods of studying operative surgery and topographic anatomy. The doctrine of surgical operations.
3.	Fundamentals of surgical interventions on blood vessels.
4.	Fundamentals of surgical interventions on lymphatic vessels
5.	Operations on nerves and tendons
6.	Fundamentals of surgical interventions on bones. Amputations
7.	Methods of studying topographic anatomy. General surgical equipment, surgical instruments. Separation and connection of tissues, local anesthesia, stopping bleeding.
8.	Topographic anatomy of the areas of the upper arm, surgical anatomy of the shoulder joint, incisions with phlegmon
9.	Topography of the shoulder and elbow area, brachial artery ligation, puncture and arthrotomy of the elbow joint, principles of extra- and intramedullary osteosynthesis.
10.	Topographic anatomy of the forearm areas, incisions in suppurative processes
11.	Work on the cadaverous material of the department, as well as at home with textbooks and teaching aids.
12.	Topographic anatomy of the hand, incisions in suppurative processes, puncture of the wrist joint, operations on tendons
13.	Intermediate knowledge control (2-stage).
14.	Topographic anatomy of the anterior thigh area, surgical anatomy of the hip joint, ligation of the femoral artery
15.	Topographic anatomy of the gluteal region, the posterior surface of the thigh, surgical anatomy of the knee joint, incisions with phlegmon
16.	Work on the cadaver material of the department, as well as at home with textbooks and teaching aids.
17.	Topographic anatomy of the lower leg, incisions with phlegmon.
18.	Topographic anatomy of the lower leg and foot, surgical anatomy of the ankle joint, incisions with phlegmon
19.	Section 2. Topographic anatomy and operative surgery of the head and neck areas
20.	Fundamentals of surgical interventions on the cerebral part of the head.
21.	Basics of surgical interventions in the neck.
22.	Fundamentals of surgical interventions on the facial part of the head. (Lek)
23.	Topographic anatomy of the neck area.
24.	Basics of surgical interventions in the neck.
25.	Operative surgery and topographic anatomy of the cerebral part of the head. Boundaries, external landmarks, departments, lymphatic vessels and nodes. Individual and age differences. Cranial topography. Frontal-parietal, temporal, mastoid areas. The outer and inner base of the skull.
26.	Topographic anatomy and operative surgery of the facial part of the head. Anterior region of the face: the areas of the eye socket, nose, mouth with the chin area
27.	Work on the cadaver material of the department, as well as at home with textbooks and teaching aids.
28.	Topographic anatomy and operative surgery of the facial part of the head. Lateral area of the face: buccal, parotid-chewing, deep. Incisions on the face
29.	Operative surgery and topographic anatomy of the neck. External landmarks. Borders, division into regions. Projections of the most important formations on the skin. Neck triangles. Reflexogenic zones of the neck. Fascia of the neck. Cellular spaces, their connection with neighboring areas. Neurovascular formations. Superficial and deep lymph nodes. Thoracic lymphatic duct and its confluence with the venous angle on the left.
30.	Operative surgery of the neck area. Surgical anatomy of incisions in purulent processes of the neck. The technique of tracheostomy, vagosympathetic blockade. Ligation of the common and external carotid arteries. Ligation and catheterization of the thoracic lymphatic duct.
31.	Section 3. Topographic anatomy and operative surgery of the breast area

32.	Surgical interventions on the chest
33.	Fundamentals of surgical interventions on mediastinal organs
34.	Topographic anatomy and operative surgery of the chest and thoracic cavity. Topography of the lung and pleura. Operations on the chest and on the mammary gland
35.	Topographic anatomy of the anterior mediastinum, operations on the lung and pleura
36.	Work on the cadaver material of the department, as well as at home with textbooks and teaching aids.
37.	Topographic anatomy of the organs of the posterior mediastinum. Operations on the organs of the posterior mediastinum.
38.	Operations on the heart, large blood vessels
39.	Section 4. Topographic anatomy and operative surgery of the abdominal area
40.	Abdominal hernias
41.	Fundamentals of surgical interventions on the organs of the upper floor of the abdominal cavity. Gastrostomy. Stomach resection
42.	Fundamentals of surgical interventions on the organs of the upper floor of the abdominal cavity. Operations on the liver, spleen.
43.	-Fundamentals of surgical interventions on the organs of the lower floor of the abdominal cavity. Intestinal sutures, anastomoses.
44.	Topography of the anterior-lateral abdominal wall. Abdominal hernias.
45.	Work on the cadaver material of the department, as well as at home with textbooks and teaching aids.
46.	The concept of "stomach", "abdominal cavity", "abdominal cavity". Topography of the upper floor of the abdominal cavity: hepatic, pre-pancreatic and omentum bags, ligaments. The course of the peritoneum and It's properties
47.	Topography of the organs of the upper floor of the abdominal cavity: liver, gallbladder, bile ducts, stomach, duodenum, spleen, pancreas
48.	Operations on the organs of the upper floor of the abdominal cavity
49.	Topographic anatomy of the lower floor of the abdominal cavity
50.	Section 5. Topographic anatomy and operative surgery of the lumbar region, retroperitoneal space and spine, pelvis and perineum
51.	Fundamentals of surgical interventions on the spine
52.	Fundamentals of surgical interventions in the pelvis and perineum
53.	Topographic anatomy of the lumbar region, retroperitoneal space. Surgical interventions on retroperitoneal organs.
54.	Topographic anatomy of the spine. Surgical interventions on the spine
55.	Topographic anatomy of the pelvis. Operations on the pelvic organs.

List of main and additional literature:

Main literature:

Abdominal surgery. Short edition. Edited by I.I. Zatevakhin, A.I. Kiriyeenko, V.A. Kubyshekin. GEOTAR – Media, 2018

Additional literature:

1. General surgery: textbook / V. K. Gostishev. - 5th ed., reprint. and additional - M.: Media, 2016
2. Simulation training in surgery. edited by V.A. Kubyshekin, S.I. Yemelyanov, M.D. Gorshkov. -M.: GEOTAR-Media, 2014
3. Vascular surgery according to Khaimovich. ed. by E. Asher; translated from English. Ed. Pokrovsky-M. BINOM. Laboratory of Knowledge, 2015

Internet resources:

<http://www.edu.ru>
<http://www.medicina.ru>
<http://www.studmedlib.ru/>
[http //www.journals. uchicago.edu/JAD/home.html](http://www.journals.uchicago.edu/JAD/home.html)

Monitoring and evaluation of learning outcomes

The content of the rating system for assessing student performance

The rating assessment of students' knowledge in each academic discipline, regardless of its total labor intensity, is determined on a 100 (one hundred) - point scale and includes current, boundary, intermediate and final control.

The distribution of rating scores between types of control is established in the following ratio (according to the table of the score-rating system of assessments):

Form of control				
current (CC)*	boundary control (BC)**	mid-term exams (MC)***	Final /exam (FE)	Discipline Rating (RD)
0-100 points	0-100 points	0-100 points	0-100 points	0-100 points, with the translation of points into a letter designation

Note:

* $TK(middle) = \frac{\sum_1^n \times point}{\sum_1^n}$, where n is the number of types of classroom and extracurricular work of students in the discipline;

** $PK(middle) = \frac{\sum_1^n credit \times point}{\sum_1^n credits}$, where n is the number of modules (credits) in the discipline;

*** $ПК(middle) = \frac{\sum_1^n \times point}{\sum_1^n}$, where n is the number of intermediate controls (2 controls per semester: in the middle and at the end of the semester) by discipline;

**** ИК – examination conducted at the end of the study of the discipline

;

***** $РД = \frac{TK_{ср} + PK_{ср} + ПК_{ср} + ИК}{4}$, the final rating of the results of all types of control at the end of the discipline;

GPA = $\frac{\sum_1^n \times балл}{\sum_1^n}$ where, n is the number of disciplines in the semester (for the past period of study).

A student who has not passed the current, boundary and intermediate controls to the final control (exam) is not allowed.

The current control is carried out during the period of classroom and independent work of the student on time according to the schedule, at the end of the study of the discipline, the average score of the current control (CC) is calculated. *Forms of current control can be:*

- testing (written or computerized);
- performance of individual homework assignments, abstracts and essays;
- student's work in practical (seminar) classes;
- various types of colloquia (oral, written, combined, express, etc.);
- control of performance and verification of reporting on laboratory work;
- visiting lectures and practical (seminar, laboratory) classes;
- Incentive rating (up to 10 points).

Other forms of current monitoring of results are also possible, which are determined by the teachers of the department and recorded in the work program of the discipline.

The frontier control is carried out in order to determine the results of the student's development of one credit (module) as a whole. *Frontier control* should be carried out only in writing, at the end of the study of the discipline, the average score of boundary control (BC) is calculated. As forms of *frontier control* of the training module, you can use:

- testing (including computer testing);
- interview with written fixation of students' answers;
- test.

Other forms of intermediate control of results are also possible.

Intermediate control (mid-term exams) is carried out in order to check the completeness of knowledge and skills in the material in the middle and end of the semester (2 times per semester) of studying the discipline, by the end of the study of the discipline, the average score of intermediate control (PCsr) is calculated, *forms of intermediate control (mid-term exams) can be:*

- testing (including computer testing);
- interview with written fixation of students' answers;
- test.

Other forms of intermediate control of results are also possible.

The final control is carried out during the session, by conducting an exam, it can be carried out in the following forms:

- testing (including computer testing);
- written exam (ticketing system).

Correspondence of the point-rating system of assessments used by the institute and the assessments of the European system for the transfer of credit units, labor intensity (ECTS)

Grade						Criterion
System of letters	digital system	Traditional system	Points (%)	Scored points (max - 100)	Evaluation by discipline without an exam	
A	4	5	95-100	95-100	Credited/ passed	"Excellent" - deserves a student who has shown a deep, systematic and comprehensive knowledge of the educational material, who freely performs practical tasks, who has mastered the recommended basic and additional literature on the discipline
A-	3,67		90-94	90-94		"Excellent" - deserves a student who has shown a deep, systematic and comprehensive knowledge of the educational material, who freely performs practical tasks, who has mastered the recommended basic literature on the discipline, but is not familiar with additional literature
B+	3,33	4	85-89	70-89		"Good" - exhibited to a student who has shown a systematic and comprehensive knowledge of the educational material, able to independently replenish and update this knowledge in the course of training, performing practical tasks, familiar with the main literature on the discipline
B	3,0		80-84			"Good" is given to a student who has shown a systematic and comprehensive knowledge of the educational material, who is able to independently replenish this knowledge in the course of training, performing practical tasks, but not fully familiar with the main literature on the discipline
B-	2,67		75-79			"Good" - is given to a student who has shown the systematic nature of knowledge in the discipline, who is able to independently replenish this knowledge in the course of training, performing practical tasks, but not fully familiar with the main literature on the discipline
C+	2,33	3	70-74	50-69		"Satisfactory" - is given to a student who does not have a systematic nature of knowledge in the discipline, who is not capable of independently replenishing and updating knowledge in the course of further education, performing practical tasks with errors
C	2,0		65-69			"Satisfactory" - is given to a student who made mistakes in completing assignments, but who has the necessary knowledge to eliminate them under the guidance of a teacher
C-	1,67		60-64			"Satisfactory" - is set to a student who made errors in the performance of tasks, but who has the possible knowledge to eliminate them under the guidance of a teacher
D+	1,33		55-59			"Satisfactory" - is set to a student who made errors in the performance of tasks, who does not have the necessary knowledge to eliminate them
D-	1,0		50-54			Satisfactory" - is given to a student who has made significant errors in the performance of tasks, who does not have the necessary knowledge to eliminate them
FX	0,5	2	25-49	Less of 50	not credited/not passed	"Unsatisfactory" - is set to a student who has not completed the task, does not have the necessary knowledge to eliminate them
F	0		0-24			"Unsatisfactory" - is set to a student who has not completed the task, does not have the necessary knowledge to eliminate them, even under the guidance of a teacher

Academic achievement requirements:

Attendance by students of all classroom classes without delay is mandatory.

In case of absence, classes are worked out in the order established by the dean's office.

If there are three passes, the teacher has the right not to allow the student to attend classes until the issue is administratively resolved.

If the absence of classes is more than 20.0% of the total number of classes, the student automatically enters the summer semester.

Note to the student:

- ✓ regularly review lecture material;
- ✓ Do not be late and do not miss classes;
- ✓ work off missed classes if you have permission from the dean's office;
- ✓ Actively participate in the classroom (individually and in groups;)
- ✓ timely and fully complete homework assignments;
- ✓ submit all assignments within the time specified by the teacher;
- ✓ independently study the material in the library and at home;
- ✓ timely and accurately fulfill the tasks of the teacher, individual tasks for the IWS to achieve learning outcomes;
- ✓ to master the basic and additional literature necessary for the study of the discipline;
- ✓ performing tasks, the student should not copy or reproduce the work of other students, scientists, practitioners, plagiarism;
- ✓ develop their intellectual and oratory skills;

In case of non-compliance with the requirements of the Memo, the student will be penalized in the form of deducting points (one point for each violated item).

If the requirements of the Memo are fully met, the student is encouraged in the form of an additional 10 points to the final control in the discipline.

Academic Integrity, Conduct and Ethics Policy:

- turn off your cell phone during class;
- Be polite;
- respect other people's opinions;
- formulate objections in the correct form;
- do not shout or raise your voice in the audience;
- independently complete all semester assignments;
- Eliminate plagiarism from your practice;

Methodical instructions.

It is recommended to organize the time required to study the discipline as follows:

When preparing for a practical lesson, you must first read the abstract with the teacher's explanations.

When performing exercises, you must first understand what you want to do in the exercise, then proceed to its implementation.

Literature work. The theoretical material of the course becomes more understandable when books are studied in addition to the abstract. After studying the main topic, it is recommended to perform several exercises.

Preparation for boundary and intermediate controls. In preparation for the boundary and intermediate control, it is necessary to study the theory: the definitions of all concepts before understanding the material and independently do several exercises.

Independent work of students is organized on all studied topics of each section. Independent work is carried out in the form of:

- work in Internet sites;
- work with basic and additional literature;
- fulfillment of written assignments;
- preparation of reports, abstracts, tables and posters on